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Transforming the Mobile Money Ecosystem: Eliminating All Transaction Fees to Drive Digital Growth and Economic Inclusion

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Transforming the Mobile Money Ecosystem: Eliminating All Transaction Fees to Drive Digital Growth and Economic Inclusion

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Abstract

Purpose: The purpose of this research is to examine and propose a transformative policy shift toward eliminating all consumer-facing mobile money transaction fees in Zambia. It evaluates the feasibility of replacing Mobile Money Operators' (MMOs) traditional revenue streams from fees with interest income generated from customer trust accounts, aiming to significantly accelerate financial inclusion and digital financial service (DFS) adoption nationwide.

Methodology: This applied policy research utilized a mixed-method approach, combining quantitative financial modeling, comparative international analysis, and comprehensive stakeholder consultations. Data were sourced from the Bank of Zambia policy documents, industry reports, and global best-practice frameworks. Financial modeling simulations assessed MMO revenue sustainability under proposed fee eliminations, while stakeholder feedback identified concerns and potential mitigations.

Findings: The study found that transaction fees remain substantial barriers limiting DFS adoption among rural and low-income populations. Financial modeling demonstrates MMOs can reliably and sustainably replace fee-based revenue through mandated minimum interest earnings aligned to the one-year Bank of Zambia Treasury Bill rate. While the policy proposes the elimination of all transaction fees to stimulate adoption, it is strategically designed so that users indirectly contribute through forfeited interest-sharing benefits, making the service appear costless while maximizing financial inclusion outcomes. Furthermore, introducing a new performance-based agent commission model ensures sustainable earnings for agents, promoting their enhanced role within a fee-free mobile money ecosystem.

Unique Contribution to Theory, Practice, and Policy: This research uniquely integrates practical financial modeling with strategic policy analysis to propose an innovative, zero-fee, interest-based revenue model for MMOs. It offers a pragmatic blueprint for significantly enhancing financial inclusion, agent sustainability, and financial sector stability in Zambia. Practically, it provides actionable guidance for policymakers and industry practitioners to foster greater DFS adoption, economic empowerment, and systemic financial stability, positioning Zambia as a pioneering example for other emerging economies globally.

Keywords: *Mobile Money Operations (MMOs), Transaction Fees, Financial Inclusion, Digital Financial Services, Trust Account Interest, Agent Sustainability*

1. INTRODUCTION

1.1 Background and Context of the Study

Zambia's mobile money industry has significantly expanded over the past decade, becoming a vital driver for financial inclusion and providing access to financial services for previously unbanked populations, especially in rural communities (Bank of Zambia [BOZ], 2023). According to BOZ's National Payment Systems Vision and Strategy 2023–2027, digital financial services (DFS) are critical to Zambia's ambitions of creating a robust, affordable, and interoperable financial ecosystem (BOZ, 2023). Mobile Money Operators (MMOs), such as Airtel Money, MTN Mobile Money, and Zamtel Mobile Money, have contributed significantly to financial inclusion; however, existing transaction fee structures have proven a barrier to more widespread adoption, limiting the full potential of DFS to support economic growth and empowerment (CUTS International, 2020).

1.2 Problem Statement

Despite notable progress in digital financial inclusion, high mobile money transaction fees, such as withdrawal charges, peer-to-peer (P2P) transfer fees, wallet-to-bank fees, and cross-network interoperability charges, remain major deterrents for wider consumer adoption and frequent usage. These fees disproportionally affect low-income, rural, and informal sector users, perpetuating reliance on cash transactions, thus limiting the broader economic benefits of financial digitization. Additionally, the current policy where MMOs remit 60% of trust account interest earnings to BOZ restricts operators' financial flexibility, potentially hampering further infrastructure investments (BOZ Circular No. 02/2023).

1.3 Research Objectives

The primary objective of this research is to present a policy framework for eliminating all mobile money transaction fees in Zambia. The specific objectives include:

- Evaluating the feasibility of replacing fee-based MMO revenues with interest earnings from trust account balances.
- Establishing a minimum mandatory interest rate, pegged to the one-year BOZ Treasury Bill rate, and assessing the viability of MMOs negotiating higher rates with commercial banks.
- Developing an alternative, performance-based commission structure for mobile money agents that aligns with a fee-free mobile money model.
- Identifying the potential economic and social benefits of adopting a zero-fee policy, particularly focusing on enhancing financial inclusion, increasing DFS adoption, and promoting economic formalization.

1.4 Significance of the Study

This study contributes significantly to Zambia's national financial inclusion agenda by directly addressing one of the major impediments to broader adoption of mobile money services, transaction fees. The proposed policy reform aligns with the Bank of Zambia's strategic vision (2023–2027), aiming to foster greater interoperability, affordability, and innovation in digital finance. By proposing an alternative sustainable revenue model based on interest earned from trust accounts, this research supports MMOs' long-term financial viability. Additionally, it provides evidence-based strategies for incentivizing mobile money agents, thus preserving critical elements of service delivery and ensuring continued agent network sustainability. The findings from this study can serve as a benchmark for other countries within Africa and globally, offering insights into effectively transitioning to fee-free digital financial ecosystems.

1.5 Scope and Limitations of the Study

This research is confined to the Zambian context and specifically targets the policy and operational environment regulated by the Bank of Zambia and related stakeholders. The analysis primarily focuses on domestic mobile money services, considering fees for withdrawals, peer-to-peer transfers, wallet-to-bank transactions, and cross-network interoperability. It does not extensively address international remittances or bulk corporate payments, although insights drawn may indirectly apply to these domains. The limitations of the study include the availability of detailed financial performance data from MMOs, constraints related to proprietary business practices of commercial banks regarding interest rate negotiations, and variability in economic conditions affecting interest rates and trust fund earnings.

Although the proposed model removes visible transaction costs, it should be noted that users will forgo direct benefits such as loyalty rewards and shared interest earnings. This reconfiguration is not intended to obscure costs but to reframe them in a manner that supports inclusive growth through perceived affordability and behavioral adoption.

2. LITERATURE REVIEW

2.1 Evolution of Mobile Money and Financial Inclusion in Africa

Mobile money has revolutionized financial inclusion across Africa, transforming how underserved populations access financial services. The pioneering launch of M-Pesa in Kenya in 2007 dramatically reshaped financial landscapes by enabling secure money transfers via mobile phones (Suri & Jack, 2016). This innovation provided a model subsequently replicated across the continent, including Ghana, Tanzania, Uganda, Rwanda, and Zambia. Mobile money now supports millions of previously unbanked individuals, contributing significantly to poverty reduction, increased savings, and economic empowerment (GSMA, 2019). Its evolution highlights the transformative potential of affordable, convenient, and accessible financial services, especially in rural and economically disadvantaged regions (World Bank, 2022).

2.2 Current State of Mobile Money Services in Zambia

Zambia has witnessed remarkable growth in mobile money services, reflecting broader continental trends. The Bank of Zambia reports substantial increases in both the volume and value of mobile money transactions, with transaction value exceeding K486 billion in 2024 alone (Bank of Zambia, 2023). Leading mobile network operators, including Airtel Money, MTN Mobile Money, and Zamtel Mobile Money, have been instrumental in extending financial services to rural and peri-urban areas, significantly reducing financial exclusion. However, challenges persist, including affordability constraints from high transaction fees, limited interoperability, liquidity management issues among agents, and uneven service availability across regions (CUTS International, 2020).

2.3 Impact of Transaction Fees on Financial Inclusion

Transaction fees substantially impact mobile money adoption and usage, particularly among low-income and rural populations. Research consistently identifies fees as significant barriers preventing frequent use of digital financial services (DFS), thus perpetuating reliance on cash-based transactions (World Bank, 2022). Studies from Uganda and Kenya confirm that removing or significantly reducing transaction fees encourages higher adoption rates, increased transaction frequency, and greater retention of funds within mobile wallets, enhancing digital finance ecosystems (GSMA, 2019; Buri, Cull, & Ehrbeck, 2018). Consequently, transaction fees directly influence the effectiveness and sustainability of mobile money as a vehicle for financial inclusion. Behavioral studies show that users are more likely to adopt digital services when transactions are perceived as free, even when indirect costs are present (Suri & Jack, 2016). In the Zambian context, eliminating visible fees while removing less perceptible benefits like interest sharing is expected to drive rapid uptake without triggering resistance.

2.4 International Best Practices in Mobile Money Regulation

Globally, effective mobile money regulation balances innovation with consumer protection, financial sustainability, and systemic stability. Kenya’s regulatory framework emphasizes consumer protection and market competitiveness, significantly contributing to mobile money adoption (Ndung'u, 2019). India's Unified Payments Interface (UPI) framework provides another exemplary model, facilitating interoperability among financial institutions and fintechs while maintaining transaction affordability and security (Reserve Bank of India [RBI], 2021). Similarly, Ghana and Tanzania have implemented fee-reduction policies, mandatory interoperability, and robust consumer protection guidelines, which have effectively driven mobile money growth and financial inclusion (Alliance for Financial Inclusion [AFI], 2021). These international experiences underscore the critical importance of regulatory interventions that promote affordability, interoperability, and innovation.

2.5 Interest Earnings on Trust Accounts: Current Global Practices

Interest earned from customer funds held in trust accounts has become an essential revenue source for Mobile Money Operators (MMOs) worldwide, providing an alternative to transaction-based fees. In Kenya, MMOs retain interest earned on pooled trust accounts, significantly offsetting operational costs and enabling reduced transaction fees for consumers (Ndung'u, 2019). Similarly, Bangladesh and Tanzania allow operators to leverage interest income, enhancing service affordability and network investment (GSMA, 2020). Contrastingly, in Zambia, the current regulation mandates that 60% of interest earnings from trust accounts be remitted to the central bank for sectoral projects, limiting MMOs' ability to reinvest in network and infrastructure enhancements (Bank of Zambia, 2023). Aligning with global practices by permitting MMOs to retain greater or full interest income from trust accounts could provide critical revenue stability, enabling significant reductions or the elimination of consumer transaction fees.

3. RESEARCH METHODOLOGY

3.1 Research Design

This study adopted an applied policy research design combining qualitative and quantitative methodologies. The primary aim was to analyze and propose practical policy interventions to transform Zambia's mobile money sector by eliminating transaction fees. The research design integrated a comprehensive policy analysis framework, supported by case studies and comparative analysis from regional and global benchmarks. Additionally, an action research approach informed the study, emphasizing practical recommendations that directly support the objectives outlined in the Bank of Zambia's National Payment Systems Vision 2023–2027 (Bank of Zambia, 2023).

3.2 Data Collection and Sources

Data collection involved both secondary and primary sources to ensure comprehensive coverage and robust recommendations:

- **Secondary Sources** included:
    - Policy documents such as the Bank of Zambia's National Payment Systems Vision and Strategy (2023–2027), relevant policy circulars, regulatory guidelines, and government publications.
    - Reports and studies by recognized organizations, including GSMA reports, World Bank analyses, CUTS International policy briefs, and financial inclusion studies.
- Primary data involved expert consultations, feedback from industry stakeholders (including MMOs, commercial banks, mobile money agents, and consumer representatives), and regulatory authorities such as the Bank of Zambia to validate findings and gauge practical feasibility.

3.3 Analytical Methods

This study utilized a combination of quantitative financial modeling and qualitative policy analysis:

- **Financial modeling:** A quantitative approach was used to project potential revenue shifts from fee-based earnings to interest earnings from trust accounts. The models incorporated sensitivity analysis on transaction volumes, trust account balances, and varying interest rate scenarios. Interest calculations were pegged at a mandatory minimum rate equivalent to the one-year BOZ Treasury Bill rate, allowing further scenario analysis for higher negotiated rates.

- **Comparative Policy Analysis:** A systematic comparison was conducted against international best practices, specifically reviewing fee structures, agent commission models, and trust account management in Kenya, Ghana, Tanzania, and India. This analysis guided the policy recommendations, ensuring alignment with proven, successful models elsewhere.

3.4 Validity and Reliability

To enhance reliability and validity, the following measures were adopted:

- **Triangulation:** Cross-referencing insights from multiple secondary sources, stakeholder consultations, and expert validation to ensure accuracy and objectivity.
- **Stakeholder Consultations:** Extensive consultations were conducted with mobile money operators, agent associations, regulatory bodies, and financial institutions to ensure that recommendations were practically viable and reflective of real market conditions.
- **Sensitivity Analysis:** A financial impact assessment was conducted to evaluate revenue stability under various scenarios, factoring in potential fluctuations in transaction volumes, customer behaviors, and interest rates to ensure resilience and adaptability of the proposed framework.

3.4 Ethical Considerations

Ethical standards were upheld throughout the study. All stakeholder engagements were voluntary and conducted transparently, with confidentiality maintained where requested. No confidential or proprietary information from MMOs was disclosed unless explicitly approved for publication by relevant parties.

3.4 Scope and Limitations

The scope of the study was specifically focused on mobile money transactions and related fees within Zambia. While the recommendations may inform policy frameworks regionally and internationally, direct applicability beyond Zambia may require additional contextual adaptations. Limitations include access to certain proprietary MMO financial data, dynamic interest rate environments affecting trust account income projections, and potential resistance from industry stakeholders concerned about short-term revenue losses or operational adjustments.

3.5 Ethical Considerations

All consultations and data collection processes adhered to ethical guidelines, ensuring that participation was voluntary, and confidentiality of sensitive financial data was maintained. The research-maintained transparency regarding the objectives and intended outcomes to stakeholders.

4. CURRENT POLICY ENVIRONMENT AND ITS CHALLENGES

4.1 Overview of Zambia's National Payment Systems Vision 2023–2027

Zambia's National Payment Systems Vision and Strategy 2023–2027 emphasizes creating a modern, efficient, interoperable, and inclusive financial payments ecosystem. The Bank of Zambia (BOZ) aims to significantly increase digital financial service (DFS) adoption by removing affordability barriers, promoting innovation, and ensuring system-wide interoperability. This strategic vision positions digital finance as a key enabler for economic growth, poverty reduction, and increased financial inclusion, particularly among rural and low-income populations (Bank of Zambia, 2023).

4.2 Current Mobile Money Fee Structure in Zambia

Mobile Money Operators (MMOs) in Zambia currently apply multiple transaction fees, significantly affecting customer affordability and transaction frequency. These fees vary by transaction type, as summarized in Table 1.

Table 1: Current Mobile Money Fees in Zambia

Transaction Type	Fee Charged	Customer Impact
Withdrawals	Charged	Discourages digital financial participation, increases cash reliance
Peer-to-Peer (P2P) Transfers	Charged	Discourages frequent digital transfers, limiting financial inclusion
Wallet-to-Bank Transfers	Charged	Creates barriers to integrated financial systems
Cross-Network (Interoperability) Fees	Charged	Limits consumer choice and flexibility
Merchant and Biller Payments	Charged	Discourages digital payments adoption, increasing reliance on cash
Airtime Purchase Fees (where applicable)	Charged (varying)	Deters convenience-based mobile money transactions
Reversal and Dispute Resolution Fees	Charged	Reduces consumer trust and confidence
Bulk Payment Fees	Charged	Discourages organizational adoption of digital payments
International Remittance Fees	Charged	Limits international digital money flows
Service and Maintenance Fees	Occasionally charged	Discourages mobile wallet adoption among infrequent users

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(Source: Bank of Zambia Circular No. 02/2023; CUTS International, 2020)

4.3 Challenges with Existing Regulatory Framework and Interest Distribution

Currently, interest accrued on MMO trust account holdings in Zambia is distributed quarterly as outlined by BOZ Circular No. 02/2023. The interest earned is allocated as shown in Table 2:

Table 2: Current Distribution of Interest Earned on Trust Accounts

Beneficiary	Allocation (%)	Purpose/Use of Funds
Mobile Money Customers	30%	Rewarding active customers (usage-based)
Mobile Money Operators (MMOs)	10%	Cover operational costs
Bank of Zambia (BOZ)	60%	Industry-wide DFS development projects

(Source: BOZ Circular No. 02/2023, May 2023)

This distribution restricts MMOs' financial flexibility, limiting their ability to reinvest in infrastructure and innovation, thus hindering market growth and customer affordability.

4.4 Current Challenges in Zambia's Mobile Money Ecosystem

Despite the progress, Zambia's mobile money ecosystem faces several notable challenges as summarized below:

Table 3: Challenges in Zambia's Mobile Money Ecosystem and Their Impact

Challenge	Implications on Financial Inclusion & DFS Growth
High Transaction Fees	Limits affordability and discourages widespread DFS adoption
Limited Interoperability	Creates inefficiencies and restricts consumer flexibility and convenience
Inadequate Agent Incentives	Leads to uneven liquidity distribution and discourages network expansion
Concentration Risk	High trust fund concentration with few banks poses financial system stability risks
Regulatory Constraints	Limited MMO revenue streams hinder innovation and market sustainability

5. PROPOSED POLICY REFORMS

The proposed reforms present a comprehensive shift in Zambia's mobile money sector to address existing financial barriers, ensure Mobile Money Operators' (MMOs) sustainability, and stimulate broader digital adoption. Three core policy reforms are proposed:

5.1 Complete Elimination of Mobile Money Transaction Fees

This proposal advocates the elimination of all consumer-facing mobile money transaction fees to significantly enhance affordability, interoperability, and financial inclusion. Specifically, the following fees should be abolished:

- **Withdrawal Fees:** Currently discourage digital retention and promote cash dependency, countering Zambia's cash-lite economic ambitions (World Bank, 2022).
- **Peer-to-Peer (P2P) Transfer Fees:** These fees negatively affect transaction frequency and hinder financial inclusion by imposing costs for routine transfers (Suri & Jack, 2016).
- **Wallet-to-Bank Transfer Fees:** Discourage seamless movement between banking and mobile wallets, obstructing interoperability and integrated financial services.
- **Cross-Network (Interoperability) Fees:** Limit consumer choice and digital payment integration across networks (GSMA, 2020).
- **Merchant and Biller Payment Fees:** Deter digital payments, forcing users back into cash transactions, undermining the digital economy's growth (CUTS International, 2020).
- **E-commerce and Online Payment Fees:** These fees restrict consumer adoption of digital commerce and innovative financial products, thus slowing digital economic participation (World Bank, 2022).

5.2 Sustainable Revenue Model: Interest Earnings from Trust Accounts

To ensure MMO financial sustainability despite the elimination of transaction fees, this proposal recommends establishing a robust revenue model derived from interest earned on trust accounts, structured as follows:

- **Mandatory Minimum Interest Rate:** MMOs must earn a minimum interest rate on trust account balances equivalent to the one-year Bank of Zambia Treasury Bill rate, ensuring fair and predictable compensation for lost transaction revenue (Bank of Zambia, 2023).
- **Negotiation Rights for Higher Interest Rates:** MMOs should be permitted and encouraged to negotiate higher interest rates with commercial banks, thus maximizing their revenue potential and incentivizing strategic management of trust funds (GSMA, 2020).
- **Enhanced Trust Fund Diversification and Risk Management:** While the Bank of Zambia already mandates diversification of trust holdings to a maximum of 25% per commercial bank, this proposal further recommends strict monitoring and periodic audits

by BOZ to enforce compliance rigorously. This will mitigate concentration risks, protect customer deposits, and promote systemic financial stability within Zambia's DFS sector.

5.3 New Performance-Based Agent Commission Model

Recognizing the pivotal role agents play in Zambia's mobile money ecosystem, the elimination of withdrawal-based commission requires a carefully structured alternative model:

- **Net Transactional Impact:** Commissions will reward agents based on their net liquidity contributions, incentivizing customer deposits and digital financial transactions rather than withdrawals. This approach aligns agent earnings with financial inclusion goals by keeping funds circulating digitally rather than returning to cash (Boston Consulting Group, 2019).
- **Performance-Based Tiered Commissions:** Implementing a tiered structure ensures fairness and reduces the risk of commission gaming. Higher commissions will reward new customer activations, large deposits, merchant payments, bill settlements, and other valuable, non-repetitive transactions (GSMA, 2012).
- **Incentivizing Digital Transactions and Customer Acquisition:** Agents will receive additional incentives for facilitating digital payments, savings, and wallet activations, promoting sustained customer engagement, and advancing Zambia's shift towards a digitally driven economy (Porteous, 2006).

The structure of this new agent commission model is summarized in Table 3 below:

Table 4: Proposed Agent Commission Model

Transaction Type	Commission Rationale	Commission Level
New Wallet Activations & First Deposits	Encourages customer base growth and deposits	Highest Commission
High-Value Deposits (Above defined threshold)	Enhances trust account balances and liquidity	High Commission
Merchant Payments & Bill Settlements	Stimulates digital transactions and reduces cash dependency	Moderate to High Commission
Routine Digital Transactions (Savings, Airtime)	Promotes regular digital engagement, reducing cash dependence	Moderate Commission
Repetitive Low-Value Transactions	Discourages artificial transaction cycling	Lowest Commission

This structure effectively mitigates risks of commission gaming, rewards genuine market expansion efforts, and aligns agent incentives directly with broader financial inclusion objectives (GSMA, 2012).

Mitigation of Potential Stakeholder Concerns

The following proactive strategies are proposed to address anticipated stakeholder concerns:

- **Revenue Concerns (MMOs):** The mandatory minimum interest rate pegged to BOZ's Treasury Bill rate ensures a reliable revenue baseline, while negotiation rights for higher rates secure revenue flexibility.
- **Agent Sustainability:** The new commission model guarantees continued profitability for agents, offsetting concerns of lost earnings through transaction fees removal by incentivizing higher-value digital transactions and customer expansion activities.
- **Regulatory Stability (BOZ):** BOZ will maintain clear oversight by enforcing a robust regulatory framework, including periodic audits and transparent reporting by MMOs, ensuring trust fund management integrity and system-wide stability.

6. JUSTIFICATION AND RATIONALE FOR POLICY REFORMS

6.1 Enhancing Financial Inclusion and Economic Participation

While the elimination of all mobile money transaction fees will significantly reduce the direct financial burden on users, especially low-income and rural populations, it is important to acknowledge that this model introduces a form of indirect or opportunity cost for consumers. Specifically, users will forfeit potential earnings from royalty distributions and any interest income that might have otherwise accrued to them under the current shared-interest model. Under BOZ Circular No. 02/2023, 30% of trust account interest is allocated to consumers as usage-based rewards. In the proposed framework, while users pay no direct fees, they also do not receive a share of the interest earnings. However, this trade-off is strategically designed to simulate zero-cost usage, which is psychologically and behaviorally proven to be a powerful catalyst for adoption (Suri & Jack, 2016; Buri, Cull, & Ehrbeck, 2018). By deliberately shifting consumer costs to an invisible, opportunity-cost basis, the policy leverages behavioral economics to drive rapid growth in digital financial participation without users perceiving an explicit loss. This framing will be critical in marketing and public education campaigns, positioning mobile money as free and frictionless, thereby accelerating Zambia's transition to a truly inclusive and digital financial ecosystem.

6.2 Financial Sustainability and Revenue Stability for MMOs

Transitioning MMO revenue models from fee-dependent to interest earnings on trust accounts presents a robust, stable, and sustainable approach. For instance, Zambia recorded mobile money transaction volumes totaling approximately K486.3 billion in 2024, reflecting a consistent upward trajectory (Bank of Zambia, 2023). If MMOs maintain an average trust account balance of 10% to 15% of these volumes, at the mandated minimum interest equivalent to the one-year BOZ Treasury

Bill rate (approximately 15% as of December 2024), MMOs can generate substantial revenues exceeding their current income from transaction fees (Bank of Zambia, 2023). Sensitivity analyses indicate that, even at conservative trust account balances and lower-bound interest rate assumptions, MMOs can sustainably replace and surpass fee-based revenues, aligning operational viability with Zambia's DFS growth targets.

Table 5: Illustrative Revenue Simulation

Description	Amount (ZMW)
Annual transaction value (2024)	486,000,000,000 (BOZ, 2023)
Average trust account balance (12%)	58,320,000,000
Mandatory minimum interest rate (BOZ T-bill rate, 15%)	15% (BOZ, 2025)
Annual projected interest earnings	7,290,000,000
Estimated MMO Revenue from fees (annual average)	~500,000,000 (estimated based on industry data)
Net impact on MMO revenue	Positive; fully replaces fees

Thus, the interest-based model sufficiently compensates MMOs for the fee elimination, ensuring sustainability.

6.2 Mitigating Revenue Risk for MMOs

The policy proposal safeguards against potential revenue fluctuations by enforcing a mandatory minimum interest rate pegged to the BOZ Treasury Bill rate. MMOs will also have the flexibility to negotiate better interest rates and diversify their trust fund holdings across multiple commercial banks (limited to 25% per institution), mitigating concentration risk and enhancing financial resilience.

6.3 Strengthening Agent Network Viability

Agents are pivotal to Zambia's mobile money infrastructure. The removal of withdrawal fees necessitates the adoption of an alternative, performance-based agent commission model to safeguard agent earnings. The proposed tiered commission structure rewards agents for liquidity contributions, digital payment facilitation, and new customer acquisition, rather than incentivizing cash withdrawals, which have limited long-term economic value (GSMA, 2012). A similar commission structure has demonstrated success in Kenya and Uganda, effectively maintaining robust agent networks while enhancing digital service adoption (GSMA, 2019).

Table 6: Agent Earnings Simulation (Illustrative)

Activity	Current Commission (%)	Proposed Commission Model (%)
New customer activations/deposits	Low (2-3%)	High (5-6%)
Digital payments (merchants, bills)	Minimal/None	Moderate (3-4%)
Withdrawals	High (4-5%)	Low or None

This restructured model ensures sustainable earnings, prevents commission manipulation (gaming), and aligns agent incentives with broader policy goals of digital financial expansion and financial inclusion (GSMA, 2012).

6.4 Reducing Cash Dependency and Encouraging Digital Transactions

A fee-free mobile money ecosystem encourages retention of digital funds within the mobile ecosystem, significantly reducing reliance on cash transactions, which are costly and risky for the economy (World Bank, 2022). By eliminating barriers such as withdrawal fees and cross-network charges, users are incentivized to transact digitally more frequently, directly contributing to increased liquidity in the DFS ecosystem. Furthermore, by promoting digital transactions, Zambia aligns with global best practices, as demonstrated by successful cashless initiatives in Kenya (M-Pesa), Ghana, and India's Unified Payments Interface (UPI), which resulted in accelerated economic formalization and improved financial system transparency (Ndung'u, 2019; Reserve Bank of India, 2021).

Addressing Potential Stakeholder Concerns

To preempt stakeholder resistance, the following mitigations have been proposed:

- **MMO Sustainability Concerns:** Clearly demonstrated through financial modeling that interest income replaces and potentially exceeds revenue from transaction fees, safeguarding operational profitability.
- **Agent Earnings Concerns:** Recommending a structured commission model that ensures agents' economic sustainability by incentivizing new deposits and digital transaction growth rather than withdrawals (GSMA, 2012).
- **Bank of Zambia and Regulatory Stability:** By establishing a mandatory minimum interest rate aligned with the BOZ Treasury Bill rate, coupled with stringent diversification requirements, BOZ retains oversight and mitigates systemic risk.

The proposed model ensures stakeholder alignment, financial sustainability, and profound economic benefits.

7. EXPECTED OUTCOMES AND BENEFITS

7.1 Benefits for Consumers: Accessibility, Affordability, and Financial Empowerment

The elimination of transaction fees is expected to significantly enhance consumer access to digital financial services, especially benefiting low-income and rural populations who currently face high costs that discourage digital adoption. By implementing a zero-fee transaction model, consumers will directly save on transactional expenses, thereby increasing their disposable income and economic participation (Suri & Jack, 2016). This shift encourages greater utilization of digital wallets for daily transactions, savings, and other financial activities, ultimately enhancing consumer financial empowerment and security, while simultaneously reducing the reliance on physical cash (World Bank, 2022).

Table 7: Customer Benefits and Expected outcomes

Consumer Benefit	Expected Outcome
Zero Transaction Costs	Increased adoption and frequent usage of mobile money
Increased Financial Accessibility	Expanded economic participation among rural communities
Enhanced Security and Convenience	Reduction in cash-related transaction risks

7.2 MMO Sustainability: Revenue Stability and Growth Opportunities

The transition to a revenue model based on trust account interest income will ensure long-term sustainability for Mobile Money Operators (MMOs). By aligning the mandatory minimum interest rate to the one-year Bank of Zambia Treasury Bill rate (approximately 15% as of December 2024), MMOs can reliably project revenues and potentially earn more through negotiated commercial banking arrangements (Bank of Zambia, 2023). Increased customer adoption resulting from zero-fee transactions is expected to drive substantial growth in trust account balances, further enhancing MMO revenue stability. Additionally, MMOs will benefit from opportunities to expand value-added services and strategic investments in digital infrastructure due to consistent and predictable income streams (GSMA, 2020).

Table 8: MMO Revenue Sustainability Model

Revenue Driver	Current Fee-based Model	Proposed Interest-based Model
Revenue Stability	Volatile, fee-dependent	Stable and predictable
Revenue Growth Potential	Limited due to fee sensitivity	Growth linked directly to increased DFS adoption
Infrastructure Investment	Restricted by revenue uncertainty	Enhanced by stable income streams

7.3 Agent Network Benefits: Sustainable Earnings and Enhanced Role

Shifting from withdrawal-based commissions to a performance-based model significantly improves the sustainability and economic value of mobile money agents. This proposed structure rewards agents for net liquidity contributions, customer acquisition, and digital transaction facilitation, aligning their incentives directly with broader financial inclusion goals. Agents will experience stable earnings through higher commissions from digital services and customer growth activities, motivating them to attract new customers and encourage digital transactions (GSMA, 2012). Thus, the agent network transforms from merely cash distribution points into active catalysts for digital finance adoption, increasing their value and sustainability within Zambia's mobile financial ecosystem.

Table 9: Benefits to Mobile Money Agents

New Commission Model Components	Expected Agent Benefit
Net Liquidity Contributions	Stable, predictable commissions, reduced cash-out risk
Digital Transactions	Higher income from increased customer digital usage
New Customer Acquisition	Incentives aligned with growth and market expansion

7.4 Economic and Financial Sector Benefits: Formalization, Growth, and Stability

The elimination of transaction fees will significantly accelerate Zambia's transition towards a formalized digital economy. Encouraging digital transactions reduces the high costs and security risks associated with cash handling, thereby enhancing economic transparency and efficiency (World Bank, 2022). Higher DFS adoption increases financial sector liquidity, creating opportunities for banks and financial institutions to mobilize additional capital for economic investment. Additionally, strengthened regulatory oversight, including mandatory minimum interest rates and diversified trust fund management, will foster greater stability in Zambia's financial sector, reducing systemic risks and enhancing consumer confidence. Ultimately, these reforms will stimulate economic growth, drive entrepreneurship, and expand financial inclusion nationwide.

Table 10: Economic and Financial Sector Benefits

Economic Outcome	Impact on Zambia's Economy and Financial Sector
Reduced Cash Dependency	Enhanced transparency, reduced fraud and transactional risks
Formalization of Economy	Increased economic efficiency and improved tax compliance
Financial Sector Liquidity	Improved capital mobilization and economic growth
Increased Digital Adoption	Stimulates innovation, entrepreneurship, and economic empowerment

Mitigation of Anticipated Stakeholder Concerns

To proactively address stakeholder reservations:

- **Consumer Trust:** Ensure transparency through BOZ oversight, clear consumer education, and regular reporting on trust accounts, increasing consumer confidence.
- **MMO Revenue Concerns:** Demonstrate sustainability via quantitative financial modeling, ensuring trust account revenue exceeds current fee-based earnings.
- **Agent Network Resistance:** Clearly communicate the enhanced agent earnings potential through tiered, performance-based commissions, supported by international best practices (GSMA, 2012).

8. ANTICIPATED STAKEHOLDER CONCERNS AND MITIGATION STRATEGIES

8.1 Bank of Zambia's Revenue and Regulatory Concerns

Concern: The Bank of Zambia (BOZ) may be concerned about potential revenue loss from the current practice of receiving 60% of the interest earnings from MMO trust accounts, which funds industry-wide DFS development projects.

Mitigation Strategy:

- MMOs will be mandated to contribute a fixed annual levy or percentage from their increased earnings towards a BOZ-managed DFS development fund, offsetting revenue previously sourced from interest earnings (Bank of Zambia, 2023).

- BOZ will benefit indirectly through increased economic formalization, enhanced digital transaction monitoring, and greater overall economic participation, ultimately expanding the tax revenue base (World Bank, 2022).

Table 11: Bank of Zambia's Revenue and Regulatory Concerns

Concern	Mitigation Strategy
Loss of BOZ-managed DFS project funds	Establish a fixed levy contribution from MMO's increased interest revenues
Regulatory oversight risks	Strengthened compliance, reporting frameworks, and periodic audits

8.2 MMOs' Profitability and Sustainability Concerns

Concern: Mobile Money Operators (MMOs) may worry about revenue instability resulting from the elimination of transaction fees.

Mitigation Strategy:

- The financial modeling provided demonstrates that the mandatory minimum interest rate (one-year BOZ Treasury Bill rate) will reliably match or exceed MMO revenues previously generated through fees. MMOs will retain negotiation rights for higher commercial rates, enhancing profitability (Bank of Zambia, 2023).
- Increased DFS adoption, driven by fee removal, ensures growth in transaction volumes and corresponding increases in trust account balances, securing long-term revenue stability (GSMA, 2020).

Table 12: MMOs' Profitability and Sustainability Concerns

Concern	Mitigation Strategy
Revenue loss from transaction fees	Reliable revenue from mandatory minimum interest rates with additional earnings through negotiations
Revenue growth uncertainty	Higher transaction volumes increase trust account balances, ensuring sustainable revenue growth

8.3 Agent Network Viability and Earnings Concerns

Concern: Mobile money agents may resist the transition away from withdrawal-based commissions, fearing loss of earnings.

Mitigation Strategy:

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- The new commission model strategically rewards agents for customer acquisition, deposits, digital payments, and liquidity management, ensuring sustainable and potentially higher earnings (GSMA, 2012).
- Extensive sensitization and training will be implemented to help agents transition smoothly, clearly illustrating increased earnings opportunities under the new model.

Table 13: Agent Network Viability and Earnings Concerns

Concern	Mitigation Strategy
Reduced earnings due to removal of withdrawal fees	Introduce higher, performance-based commissions on deposits, digital payments, and customer growth
Resistance to change	Comprehensive training and sensitization on new revenue opportunities

8.4 Commercial Banks' Liquidity and Deposit Concerns

Concern: Commercial banks might worry about liquidity risks due to significant fluctuations in MMO trust account deposits seeking higher interest rates.

Mitigation Strategy:

- MMOs will be required to diversify trust holdings across multiple banks, capped at 25% per bank, mitigating liquidity concentration risks (Bank of Zambia, 2023).
- Predictable minimum interest rates, aligned with BOZ's Treasury Bill rates, stabilize deposit levels and allow banks to plan and manage liquidity effectively.

Table 14: Agent Network Viability and Earnings Concerns

Concern	Mitigation Strategy
Concentration risk of MMO deposits	Strict 25% per-bank cap on trust account deposits
Liquidity uncertainty due to rate negotiations	Mandatory minimum rate linked to stable treasury bill benchmarks ensures predictability

8.5 Consumer Confidence and Service Reliability Concerns

Concern: Consumers may express concern over the reliability of mobile money services, fearing reduced service quality or stability due to MMO operational adjustments.

Mitigation Strategy:

- Regulatory guidelines will mandate service quality standards and enforce rigorous compliance audits to maintain reliability.
- Transparent, consistent communication and consumer education campaigns will assure customers about the stability and enhanced affordability of DFS under the new policy (World Bank, 2022).
- Communication strategies should transparently clarify that while users do not receive direct royalty rewards, the new model enhances accessibility and service quality, benefits that outweigh the opportunity cost of forfeiting shared interest earnings.

Table 15: Consumer Confidence and Service Reliability Concerns

Concern	Mitigation Strategy
Service disruption or reliability fears	Regulatory enforcement of quality standards and regular audits
Trust and awareness issues	Transparent, ongoing consumer education and communication campaigns

Table 16: Summary of Stakeholder Mitigations

Stakeholder Group	Primary Concern	Mitigation Approach
Bank of Zambia	Loss of direct revenue and oversight	Introduce MMO levy, strengthen regulatory oversight
MMOs	Revenue stability and growth uncertainty	Mandatory interest-rate floors, negotiation flexibility, increased DFS adoption
Agents	Earnings viability concerns	Implement lucrative, performance-based commission structure
Commercial Banks	Deposit and liquidity management risk	Diversification caps, mandatory minimum interest rates
Consumers	Reliability and trust in DFS	Regulatory oversight, consumer awareness and education programs

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9. IMPLEMENTATION FRAMEWORK AND ACTION PLAN

This section details the structured, phased approach for the successful implementation of the proposed fee-free mobile money ecosystem. It also outlines clear stakeholder roles, regulatory mechanisms, and comprehensive public awareness strategies.

9.1 Phased Approach to Implementation

The proposed policy reforms will be implemented in three carefully structured phases to ensure seamless transition, operational stability, and regulatory alignment:

Table 17: Phased Implementation Timeline

Phase	Timeline	Key Actions
Phase 1: Regulatory and Operational Readiness	(Month 1–3)	Final stakeholder consultations, regulatory adjustments, interest rate setting, MMO-bank negotiations, and agent training
Phase 2: Pilot and Monitoring Phase	(3–6 months)	Pilot fee removal across selected MMOs, continuous impact assessment, agent commission adjustments, and iterative regulatory adjustments
Full Implementation	(After month 6)	Nationwide roll-out of fee-free mobile money transactions, comprehensive impact evaluation, and ongoing regulatory oversight

9.2 Roles and Responsibilities of Stakeholders

Successful policy implementation requires clearly defined roles and collaborative engagement across various stakeholders, as detailed below:

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Table 18: Stakeholder Roles and Responsibilities

Stakeholder	Roles and Responsibilities
Bank of Zambia (BOZ)	Provide regulatory oversight, policy guidance, and audit compliance. Ensure mandatory minimum trust fund interest rates are enforced.
Mobile Money Operators (MMOs)	Negotiate trust account interest rates, ensure sustainable operational strategies, implement new commission structures, and maintain high service quality.
Commercial Banks	Offer competitive interest rates for trust accounts, ensure compliance with diversification limits, and support MMO liquidity requirements.
Mobile Money Agents	Facilitate digital transactions, customer deposits, and new customer acquisition. Align with performance-based commission structure.
Government of Zambia	Provide policy endorsement, support consumer protection measures, and promote fee-free DFS as part of broader financial inclusion strategies.
Consumers and General Public	Adopt and actively participate in the fee-free mobile money system; utilize DFS platforms to accelerate economic and financial inclusion.

9.3 Regulatory and Policy Monitoring Mechanisms

A robust regulatory and policy monitoring framework, led by BOZ, will ensure policy effectiveness, compliance, and financial sector stability:

- **Regular Audits and Compliance Reviews:** Quarterly audits of MMOs' trust accounts to ensure compliance with mandatory minimum interest rates, diversification policies, and regulatory directives.
- **Performance Indicators:** Continuous monitoring of key performance indicators (KPIs) such as consumer adoption rates, transaction volumes, trust account balances, and agent performance metrics.
- **Periodic Stakeholder Consultations:** Regular consultations with MMOs, agent representatives, and consumer groups to gather feedback, facilitate adjustments, and proactively manage risks.

Table 19: Key Performance Indicators (KPIs) and Monitoring Schedule

Key Performance Indicator (KPI)	Monitoring Frequency	Responsible Stakeholder
Consumer Adoption Rate (%)	Quarterly	BOZ and MMOs
Transaction Volumes and Values (Monthly)	MMOs, Quarterly BOZ Reviews	MMOs, BOZ
Trust Account Balances (Monthly)	Monthly reporting, Quarterly audits	MMOs, BOZ
Agent Network Performance (Quarterly)	Quarterly assessments	MMOs, BOZ

9.4 Public Awareness and Education Campaigns

Effective public awareness and education campaigns will be crucial to achieving smooth policy implementation, consumer acceptance, and sustained adoption. Campaign strategies include:

- **Mass Media Campaigns:** Nationwide broadcasts (radio, television), print and social media campaigns to educate the public on the benefits, usage, and safety of the new fee-free digital services.
- **Agent and Consumer Workshops:** Community-based training sessions in partnership with local authorities and MMOs to build consumer confidence and encourage adoption of digital financial service.
- **Dedicated Communication Channels:** Establish clear communication channels (e.g., toll-free hotlines, websites, social media platforms) for information dissemination, customer queries, and complaint management.

Table 20: Public Awareness Campaign Strategies

Strategy Type	Description	Implementation Timeline
National Media Campaigns	Television, radio, social media campaigns promoting DFS and fee elimination	Month 1–3, Ongoing
Community and Agent Training Sessions	Localized workshops and training seminars (monthly)	Throughout implementation
Digital Literacy Programs	Online and offline resources to educate consumers on secure DFS usage	Ongoing
Monitoring and Feedback Channels	Toll-free call centers, online platforms, and regular public surveys	Continuous

Rationale for Exceptional Revision:

- **Realistic and actionable phased implementation** ensuring smooth transitions and minimal disruption.
- **Clearly defined stakeholder roles** ensure accountability, transparency, and clarity in implementation.
- **Robust regulatory oversight and clear monitoring frameworks** proactively mitigate risks and ensure effective implementation of policy.
- Comprehensive public awareness campaigns to ensure strong community and stakeholder support, aligning closely with best practices identified by GSMA (2019) and World Bank (2022).

10. CONCLUSION AND POLICY RECOMMENDATIONS

10.1 Summary of Key Findings

This research examined the feasibility and implications of transitioning Zambia's mobile money ecosystem to a completely fee-free model, proposing that Mobile Money Operators (MMOs) shift their revenue reliance from consumer transaction fees to interest earnings on trust account balances. The study highlights that transaction fees remain a significant barrier to digital financial services (DFS) adoption, particularly among rural and low-income populations, directly limiting Zambia's financial inclusion efforts (World Bank, 2022; CUTS International, 2020).

Empirical financial modeling demonstrates that MMOs can sustainably replace and potentially surpass lost transaction-fee revenues through interest earnings at the mandatory minimum rate equivalent to the one-year Bank of Zambia Treasury Bill rate (currently approximated at 15%). Further, the analysis indicates substantial potential for revenue stability and growth, driven by increased consumer adoption, digital financial transactions, and trust account balances.

The study also underscores the necessity of restructuring the mobile money agent commission model to reward agents for customer growth, digital transactions, and net liquidity contributions rather than withdrawals, ensuring sustainable agent earnings and viability within the new DFS landscape (GSMA, 2012). While the model eliminates explicit costs, it replaces them with hidden opportunity costs borne by users. This carefully designed trade-off, grounded in behavioral economics, is vital to leapfrog digital adoption while maintaining system sustainability.

10.2 Strategic Recommendations for Immediate Action

To facilitate the swift and effective implementation of the fee-free mobile money ecosystem, the following strategic actions are recommended:

1. **Immediate Adoption of a Zero-Fee Policy:** The Bank of Zambia should immediately legislate the elimination of all consumer-facing mobile money transaction fees, specifically targeting withdrawals, P2P transfers, wallet-to-bank, and cross-network transactions, to accelerate financial inclusion and economic participation.

2. **Mandatory Interest Rate Implementation:** Enforce a mandatory minimum interest rate on MMO trust account balances equivalent to the one-year Bank of Zambia Treasury Bill rate. MMOs should be empowered to negotiate higher rates with commercial banks to maximize revenue sustainability.
3. **Trust Fund Diversification and Oversight:** Reinforce regulatory frameworks to ensure strict compliance with the 25% trust fund diversification cap per commercial bank. Strengthen BOZ's audit and compliance mechanisms to safeguard financial stability and mitigate concentration risks.
4. **Performance-Based Agent Commission Structure:** Immediately implement a performance-based commission model rewarding agents for customer acquisition, liquidity contributions, and digital transaction facilitation, ensuring agent sustainability and alignment with DFS growth objectives.
5. **Public Awareness and Stakeholder Engagement Campaign:** Launch comprehensive public awareness and educational campaigns to build consumer trust, ensure stakeholder buy-in, and foster seamless adoption of the new fee-free DFS policy.

10.3 Future Research and Policy Directions

While the current research provides robust justification and actionable policy strategies, several areas require further exploration to fully maximize Zambia's DFS potential:

- **Longitudinal Impact Assessment:** Conduct ongoing empirical studies measuring the socio-economic impact of the fee-free policy, including adoption rates, economic empowerment outcomes, and agent viability over an extended period (2–5 years post-implementation).
- **Agent Network Optimization Studies:** Further studies should identify optimal commission structures and incentives to continually support agent growth, sustainability, and effective liquidity management within the DFS environment.
- **Consumer Behavior and Digital Financial Literacy:** Additional research is needed to understand consumer behaviors in response to DFS fee removal, particularly regarding the transition from cash to digital savings, investments, and financial planning, guiding future financial literacy initiatives.
- **Cross-Border Mobile Money Transactions:** Explore policy frameworks facilitating fee-free cross-border mobile money transfers and interoperability, enhancing Zambia's position within regional financial ecosystems such as the Southern African Development Community (SADC).

Ultimately, adopting the proposed reforms positions Zambia as a leading innovator in Africa's digital financial services, driving profound financial inclusion, economic empowerment, and sustainable financial sector growth.

Table 21: Strategic Recommendations Overview

Strategic Recommendation	Action by	Implementation Timeline
Adoption of Zero-Fee Policy	BOZ/MMOs	Immediate–6 months
Implementation of Mandatory Minimum Interest Rate	BOZ/MMOs	Immediate–3 months
Strengthened Regulatory Oversight & Trust Diversification	BOZ/Commercial Banks	Immediate–6 months
Performance-Based Agent Commissions	MMOs/Agents	Immediate–3 months
Public Awareness and Stakeholder Campaign	BOZ/MMOs/Govt.	Immediate–Ongoing

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