Agpaytech's Research

The Benefit of Foresight

The Next Digital Leap

How Telecoms Are Driving Open Banking in Emerging Economies

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Research / Analytics / Direction


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Introduction

Open banking and mobile telecommunications have emerged as two of the most transformative forces in financial services, particularly in emerging markets.

The convergence of open banking and telecom infrastructure presents a transformative opportunity for financial inclusion, particularly in developing economies. Telecom operators, with their vast mobile networks and customer bases, are well-positioned to collaborate with financial institutions to deliver interoperable, customer-centric digital services. Open banking and mobile telecommunications have emerged as two of the most transformative forces in financial services, particularly in emerging markets.

Thoughtful how these two sectors operate and how their convergence can reshape digital finance, especially in unlocking the potential of integrated, inclusive financial ecosystems. In the open banking space, banks provide third-party providers (TPPs) with secure access to customer financial data, accounts, and transactional capabilities through Application Programming Interfaces (APIs). This data-sharing framework, often regulated by law (e.g., PSD2 in the EU, CMA Open Banking in the UK), aims to shift control of financial data from institutions to customers, fostering competition, innovation, and inclusion.

Figure 1: Number of banks 2024

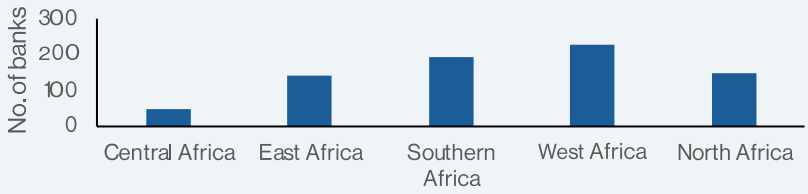


Figure 2: Percent of banking and unbanked population 2024

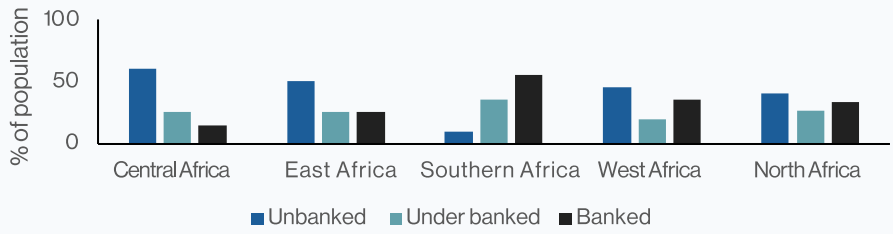
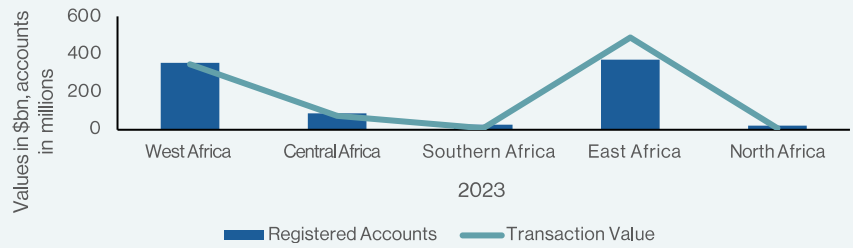
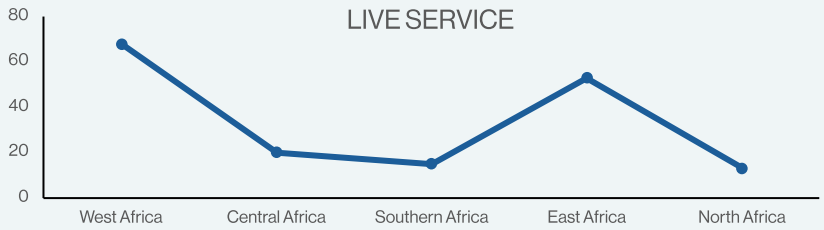


Figure 3: Registered mobile money accounts and value of transactions



Source: GSMA

Figure 4: Mobile money live lines in Africa by region



Source: AfricaNenda (2024)

Telecoms are Key Enablers of Open Banking in Africa

East Africa,
53 Services
$488B

Central Africa,
20 Services
$72B

Southern Africa,
$6B

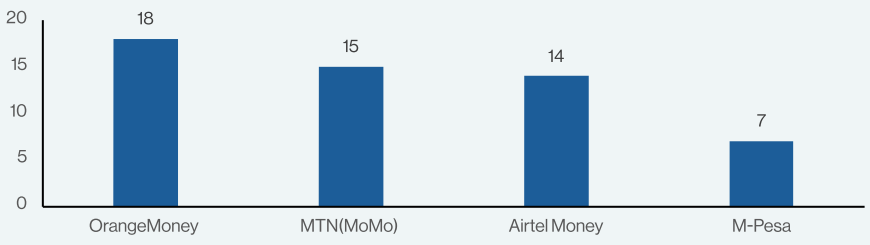
North Africa,
$7B

Telecommunications companies have become significant players in the financial services sector, particularly in regions where traditional banking penetration is low but mobile phone adoption is high. Mobile Network Operators (MNOs) have built robust mobile money ecosystems that provide essential financial services, including savings, payments, transfers, loans, and insurance, to underserved populations.

Emerging Telecom Fintech-based

East Africa leads the continent in mobile money with 53 live services, driving 38 billion transactions worth $488 billion, thanks largely to early innovators like M-Pesa and widespread daily usage. Central Africa, with 20 services, shows moderate adoption at 5 billion transactions valued at $72 billion, hindered by infrastructure gaps. Southern Africa reports low usage (592 million transactions, $6 billion) due to stronger traditional banking penetration. North Africa trails with 150 million transactions worth $7 billion, reflecting limited adoption but significant growth potential if services are better localized.

Figure 5: Telecoms and the number of countries present



Source: Agpaytech 2025


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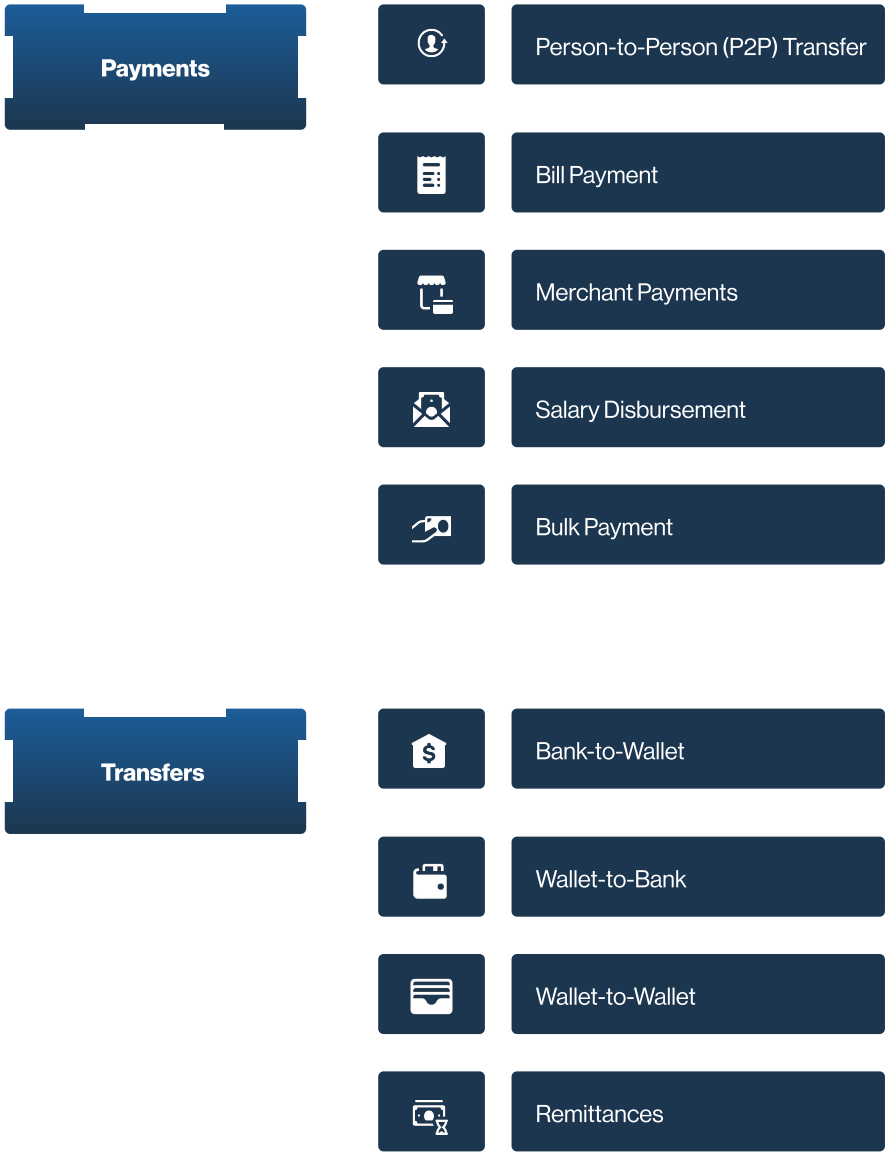
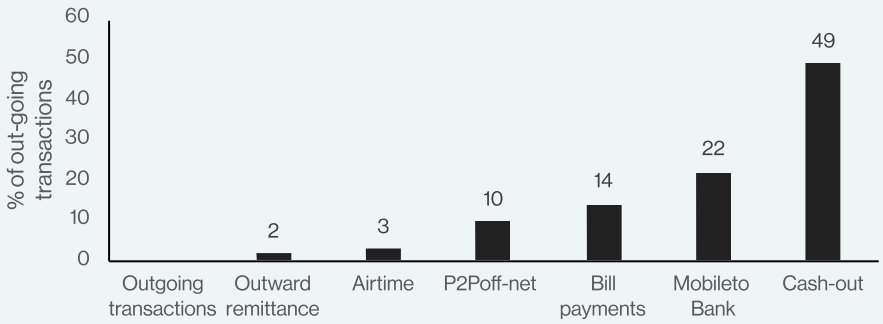
Figure 6: Mobile money functions



Source: Agpaytech 2025

Figure 7: Outgoing transactions using mobile payment



Source: GSMA (2024)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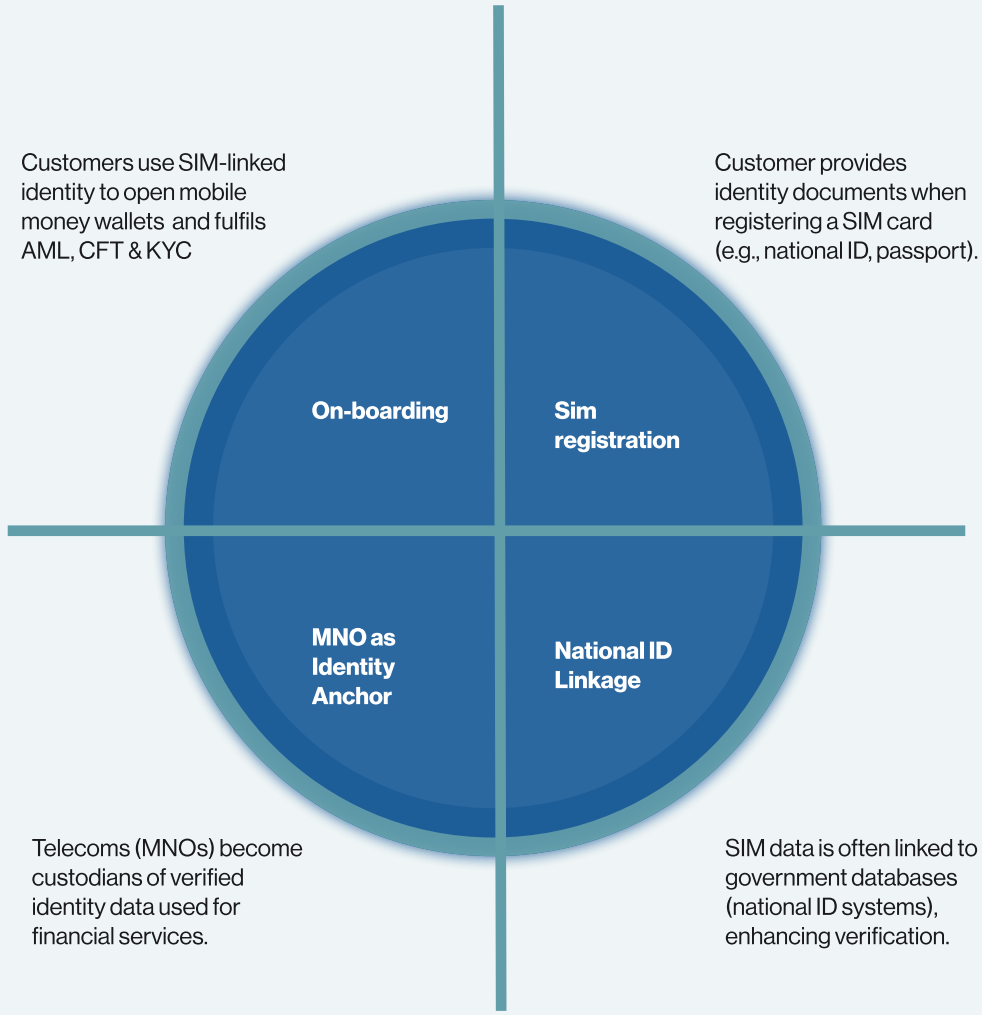
Overall, Telecoms simplify and broaden access to financial services.

SIM-Based Identity and KYC

MNOs often serve as the initial identity anchor for customers through SIM registration processes, which governments in many countries have linked to national ID systems. This infrastructure supports digital onboarding and KYC (Know Your Customer) protocols more efficiently than traditional banks. SIM registration supports digital finance by using identity documents to link customer information to national databases. This makes Mobile Network Operators key identity providers, enabling remote onboarding for mobile money services and helping meet KYC and AML/CFT regulations. Telecoms (MNOs) become custodians of verified identity data used for financial services, and this makes them powerful enablers of open banking. Overall, Telecoms simplify and broaden access to financial services.

Figure 8: Mobile money KYC



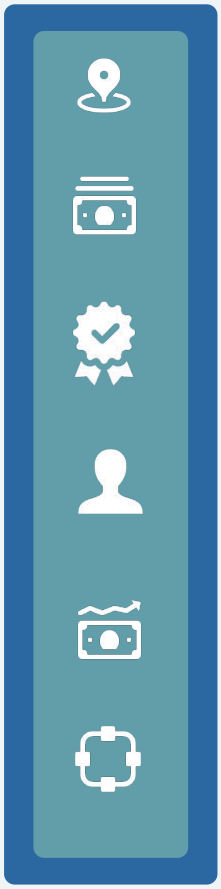
Source: Agpaytech 2025

These agent networks facilitate essential cash-in and cash-out transactions, providing a physical touchpoint for digital financial services in areas where traditional banking infrastructure is limited or nonexistent.

Agent Networks and Distribution

Telecoms have deep physical reach through their agent networks, which allow for cash-in/cash-out services, especially in remote or rural areas where bank branches are scarce. They play a critical role in expanding financial services through their extensive agent networks, which are particularly effective in reaching underserved and remote populations. These agent networks facilitate essential cash-in and cash-out transactions, providing a physical touchpoint for digital financial services in areas where traditional banking infrastructure is limited or nonexistent. Beyond distribution, Mobile Network Operators (MNOs) also gather valuable behavioral data from customer activities such as call records, SMS usage, and airtime purchases. This data can be analyzed to develop alternative credit scoring models, enhance fraud detection systems, and offer personalized financial products tailored to user behavior. These capabilities demonstrate the strength of telecoms' agent networks in both physical service delivery and data-driven financial innovation. Also, MNOs collect rich behavioral data from call patterns to airtime purchases that can be used for alternative credit scoring, fraud detection, and personalized financial services.

Figure 9: Factors Illustrating Telecoms' Agent Network Strength



Geographic reach
Agents are present in remote and underserved areas

Cash-In/Cash-Out (CICO)
Agents enable users to deposit and withdraw cash

Trust & Familiarity
Local agents are often trusted community members

Support for KYC
Agents often assist with user registration and basic KYC verification, facilitating onboarding.

Revenue Sharing Model
Agents earn commissions, creating incentives for service quality and network expansion.

Cross network services
Handle multiple wallets (interoperability), expanding reach and efficiency.

Source: Agpaytech 2025

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The Need for Integration

Despite their respective strengths, banks and telecoms have historically operated in silos, often competing for the same customers. However, open banking presents a powerful opportunity to bridge this divide by enabling secure, standardized integration between the two. Rather than building parallel infrastructures, telecoms and banks can collaborate through APIs to share customer insights, offer embedded finance products, and unlock new value chains in a compliant and scalable way.

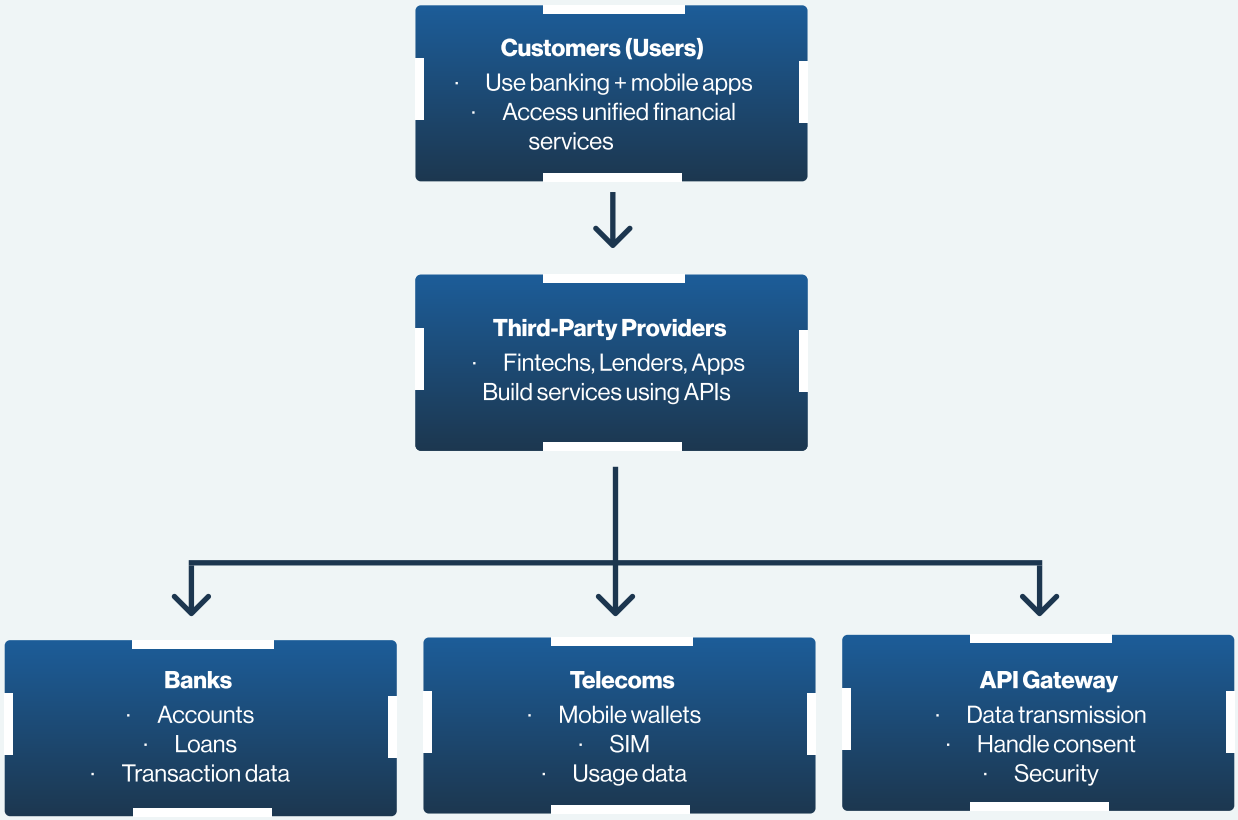
Complementary Capabilities

Banks bring regulatory trust, deposit insurance, and core banking infrastructure. Telecoms bring reach, agility, and customer engagement. Their integration promises greater innovation and customer satisfaction.

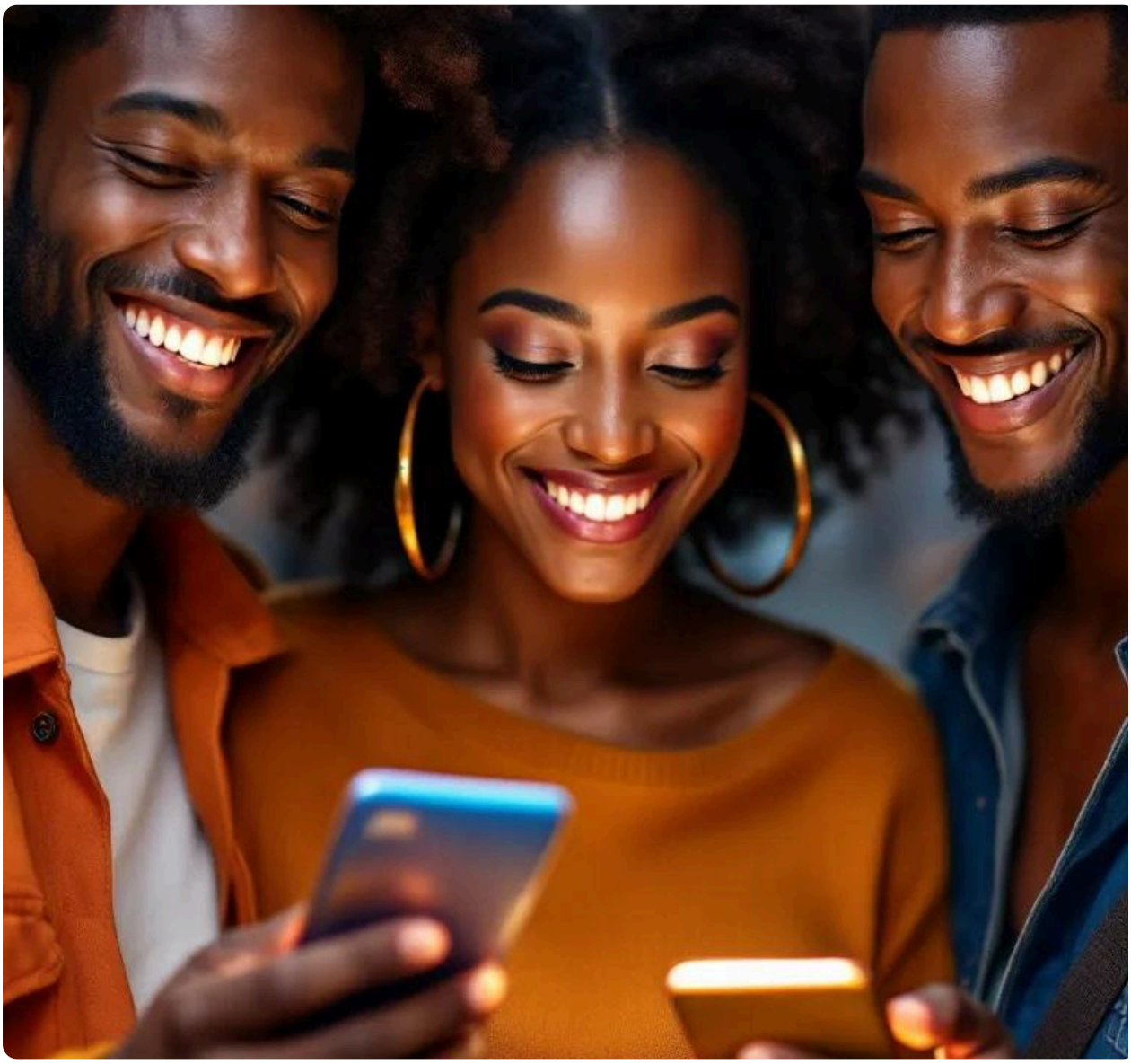
Expanding Access

Joint initiatives can extend banking services to the last-mile rural farmers, informal traders, and migrant workers through mobile connectivity and open APIs.

Figure 10: Layered Integration Model



Source: Agpaytech 2025



Third-Party Providers (TPPs), including fintech startups and app developers, use these APIs to build innovative financial products and services tailored to customer needs.

In an open banking environment, several key components work together to create an integrated financial ecosystem. The Bank API Layer allows banks to expose financial data, such as account balances, transaction history, and credit profiles, through secure and standardized APIs. Complementing this, the Telecom (MNO) Layer provides access to mobile money accounts, SIM-based identity verification (KYC), and customer usage data, which are especially valuable in regions with high mobile penetration but limited banking infrastructure. These two layers are connected through an API Gateway, which acts as a secure intermediary that facilitates data exchange, enforces user consent, and ensures interoperability. Third-Party Providers (TPPs), including fintech startups and app developers, use these APIs to build innovative financial products and services tailored to customer needs. Ultimately, Customers benefit from this collaboration through enhanced financial inclusion, seamless access to services such as credit scoring and digital wallets, and the convenience of unified platforms or super apps that blend banking and mobile functionalities.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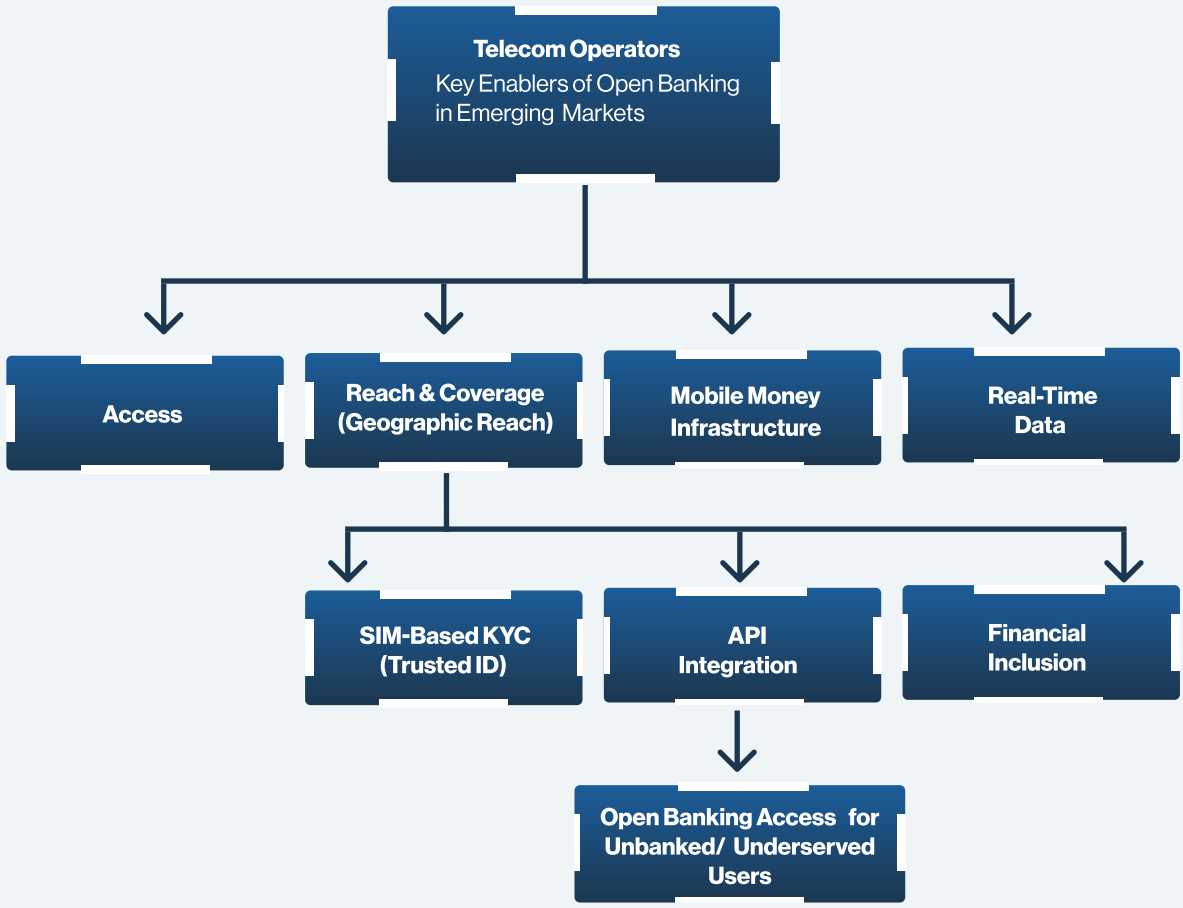
The Telecom and Open Banking in the Fintech Space

The telecom operators (specifically Mobile Network Operators or MNOs) act as critical enablers of open banking in emerging markets, particularly by leveraging their infrastructure, data, and reach. At the top of the structure are the telecom operators who, due to their widespread presence and user base, play a foundational role. Their extensive geographic reach and agent networks provide the physical infrastructure to connect people in both urban and remote areas. Their mobile money platforms serve as foundational financial tools, often acting as the first entry point into digital finance for millions. Additionally, MNOs offer real-time access to user data, including transaction histories, airtime usage, and call patterns, that can support alternative credit scoring and personalized financial services.

Figure 11: Telecom-open banking flow



Source: Agpaytech 2025

Supporting this structure (figure 10) are SIM-based KYC processes, where SIM registration links users to trusted identities, ensuring secure and verifiable onboarding. Telecoms also enable API integration, which allows third-party FinTech and banks to connect with telecom infrastructure to offer seamless financial services. Combined, these elements promote financial inclusion by bringing services to people traditionally excluded from the banking system. At the bottom of the model, all these efforts converge to provide open banking access to unbanked and underserved users. By building on the trusted infrastructure of telecoms, open banking in emerging markets becomes more viable, scalable, and inclusive, unlocking new opportunities for users and FinTech providers alike.

Use Cases and Examples

MTN MoMo & Open Banking in Africa

MTN's Mobile Money (MoMo) platform has been at the forefront of financial inclusion across Africa, and its integration with open banking platforms marks a significant evolution in the fintech landscape. By exposing its services through APIs, MTN enables fintech companies to directly access MoMo's wallet functionality, such as balance checks, money transfers, and payment processing, without the need to build or replicate the core mobile money infrastructure. This interoperability empowers startups and third-party developers to launch financial products like microloans, savings tools, and digital insurance on top of the MoMo system. For example, a fintech company can use MoMo APIs to offer a digital savings account or process salary payments, especially in informal sectors where traditional banking is limited. The result is an expanded ecosystem that fosters innovation, reduces operational costs for fintechs, and broadens service access for end users.

- MTN is integrating with open banking platforms to provide API-based access to its MoMo wallet services.
- Enables fintechs to offer payment, lending, and savings products via MoMo without duplicating infrastructure.

Safaricom's M-Pesa + Bank Integration in Kenya

Safaricom's M-Pesa platform is a leading example of successful open API implementation in Africa. The company has opened its APIs to banks, Savings and Credit Cooperative Organizations (SACCOs), and fintechs, allowing them to integrate directly into the M-Pesa ecosystem. This integration facilitates a variety of financial services, including instant loan disbursements (such as the widely used M-Shwari), real-time bill and merchant payments, and seamless digital KYC processes. For instance, M-Shwari, a partnership between Safaricom and Commercial Bank of Africa, uses mobile data to evaluate creditworthiness and disburse loans directly into users' M-Pesa wallets. This synergy between telecom and banking sectors exemplifies how API-driven interoperability reduces barriers to financial services, enhances customer convenience, and accelerates digital finance adoption in Kenya.

- Safaricom has enabled open APIs that allow banks, SACCOs, and fintechs to plug into the M-Pesa ecosystem.
- Popular use cases: Loan disbursements (e.g., M-Shwari), digital KYC, and real-time merchant payments.

Conclusion

Open banking with telecoms represents a new frontier in digital financial services, especially in underbanked regions. By combining the reach and agility of telecoms with the regulatory trust and infrastructure of banks, the industry can unlock truly inclusive and innovative financial ecosystems. However, to realize this potential, stakeholders must collaborate around standardization, compliance, and consumer trust. A key advantage of telecoms in open banking lies in their extensive reach, real-time data access, and SIM-based identity infrastructure, which together offer powerful tools for accelerating financial inclusion and improving service delivery.Telecom operators (MNOs) manage vast mobile networks that reach deep into underserved and rural populations—segments often neglected by traditional banks. Through mobile money platforms, telecoms have already enabled millions of users to send and receive money, pay bills, and access basic financial services without needing a bank account. This positions them as critical enablers in extending open banking benefits to the unbanked and underbanked.

Furthermore, telecoms possess real-time behavioral and transactional data (such as airtime usage, mobile payments, and location patterns), which can be leveraged, under proper consent frameworks, to enhance credit scoring models, fraud detection, and customer profiling. Another strategic advantage is their SIM-based identity and KYC systems, often linked to national ID databases. This allows telecoms to serve as trusted identity anchors, enabling faster and more efficient digital onboarding than traditional banks.In essence, telecoms bring scale, trust, and technological infrastructure that complement banks' financial expertise, making them indispensable partners in the open banking ecosystem, particularly in emerging markets.

About Agpaytech

Agpaytech Ltd. is a company pioneering in the Fintech space with a focused approach to building robust technologies for e-commerce Card Processing Solutions for Payment Service Providers (PSPs). Additionally, we provide Compliance and Regulatory Umbrella, Remittance-as-a-Service (RaaS), Banking-as-a-Service (BaaS), Foreign Exchange, Cross Border Payments, and digital currency technology.

We also provide practical white paper research support to central banks, government and private institutions, economic organizations, and NGOs in Africa. Our services expand from research projects, state-of-industry reports, project assessment, data collection, and consulting services in the fintech space.

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