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Banked but Not Mobile: Why Nigeria Lags Its West African Neighbours in Mobile Money. Evidence from the Global Findex 2025

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Abstract
Across much of West Africa, mobile money has become a common way to hold and move money, yet uptake in Nigeria has been far lower. This paper asks how much of Nigeria's shortfall can be traced to the measured characteristics of its adults, such as income, schooling, phones and identity documents, and whether Nigeria is behind in digital finance generally or in mobile money specifically. Using the 2025 Global Findex microdata for Nigeria, Ghana, Côte d'Ivoire, Togo and Niger, we compare Nigeria with each neighbour through weighted twofold Oaxaca-Blinder decompositions, with bootstrap standard errors, alternative reference coefficients and a nonlinear version, for four outcomes: mobile money accounts, digitally enabled accounts, any account and any digital payment. Mobile money accounts are held by 32.8 per cent of Nigerian adults and 78.3 per cent of Ghanaian adults, while Nigeria has the highest financial-institution account rate of the five countries (59.7 per cent). On digitally enabled accounts (53.1 per cent) Nigeria is level with Côte d'Ivoire and Togo and behind only Ghana. Measured characteristics account for between 5.4 and 9.4 points of the 45.5-point mobile money gap with Ghana, depending on the reference coefficients and model, mainly through ownership of smartphones, phones and identity documents. Among adults without a financial-institution account, 8.8 per cent in Nigeria use mobile money, compared with 69.4 per cent in Ghana. Within Nigeria, women are 15.5 points less likely than men to have mobile money, and about half of that difference is attributed to measured characteristics, chiefly women's lower smartphone ownership. Most of the mobile money gap between Nigeria and its neighbours is not attributable to measured characteristics of adults. In Nigeria, mobile money serves mainly adults who already have a bank account and has seldom reached the third of adults who have no account at all.

Keywords: *Mobile Money; Digital Financial Inclusion; Oaxaca-Blinder Decomposition; Bank-Led Model; Gender Gap; Nigeria; West Africa; Global Findex* ***JEL Classification:*** *G21; O33; O16; O55.*

I. INTRODUCTION

In many Sub-Saharan African countries, a mobile money account has been the first formal financial product that most adults ever used. Studies of Kenya link its spread to cheaper remittances, better protection of consumption against shocks and lower poverty (Jack & Suri, 2014; Suri & Jack, 2016), and a broader review reaches favourable conclusions for both households and firms (Aron, 2018). Nigeria stands apart. For most of the past decade its regulators followed a bank-led approach, and payment service banks owned by telecom companies began operating only in 2022. Ghana took a different path in 2015, when its central bank allowed non-bank firms, including telecom operators, to issue electronic money (Bank of Ghana, 2015).

We use the 2025 Global Findex microdata for Nigeria and four neighbouring countries to address three questions: how large Nigeria's mobile money shortfall is, and whether it extends to digital finance as a whole; how much of it can be attributed to the measured characteristics of adults; and which Nigerians are left without mobile money, with particular attention to women and to adults who have no bank account.

The paper adds three findings. Measured against Côte d'Ivoire and Togo, Nigeria's lower use of mobile money is not matched by lower use of digital accounts overall, because Nigerian adults reach digital finance mostly through banks. Decompositions attribute only a small share of the mobile money shortfall to differences in adult characteristics. And in Nigeria mobile money seldom reaches people without a bank account, while women are clearly less likely than men to use it. Two companion studies analyse the same Findex round for other questions, business borrowing by women (Apeh, 2026) and recovery after natural disasters (Apeh & Sani, 2026); none of their tables or text is repeated here. All results are associations.

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II. BACKGROUND AND RELATED LITERATURE

The five countries regulate mobile money differently. Nigeria's framework placed mobile money under bank-led arrangements supervised by the Central Bank of Nigeria (CBN), in which telecom operators could not offer the service in their own right. The CBN created a payment service bank licence in 2018, and the first telecom-owned payment service banks opened in 2022. Ghana's 2015 guidelines let non-bank entities, telecom operators among them, issue electronic money through dedicated subsidiaries (Bank of Ghana, 2015). Côte d'Ivoire, Togo and Niger share the regional framework of the Central Bank of West African States, under which operator-led mobile money has expanded quickly in the coastal member states.

At the level of individuals, the main obstacles to account ownership identified in earlier Findex rounds include not owning a phone, lacking identity documents, low income, little education and distance from financial access points (Demirgüç-Kunt, Klapper, Singer, & Ansar, 2022). These characteristics give a natural benchmark. If Nigeria's shortfall reflects differences in such characteristics, a decomposition will attribute it to endowments. If Nigerians with the same characteristics as their neighbours still adopt less, the shortfall will appear in the part that the characteristics do not account for (Oaxaca, 1973; Blinder, 1973; Fairlie, 2005).

III. DATA AND METHODS

The Global Findex 2025 (World Bank, 2025) interviews a nationally representative sample of roughly 1,000 people aged 15 or older in each economy. We use the files for Nigeria, Ghana, Côte d'Ivoire, Togo and Niger and rescale the survey weights to a mean of one in each country. Four outcomes are studied: owning a mobile money account; owning a digitally enabled account, which Findex defines as a financial-institution account used for a digital payment or a mobile money account; owning any account; and having made or received any digital payment, a measure that does not depend on the type of account a respondent reports. The account indicators are taken as constructed and defined by Findex (World Bank, 2025; Demirgüç-Kunt et al., 2022). Covariates are gender, age and age squared, secondary and tertiary education, within-economy income quintile, labour-force participation, urban residence, and ownership of a mobile phone, a smartphone and a foundational identity document.

How accounts are classified. Findex assigns respondents to account types from their answers about the services they use, and the public files do not name the provider. In Nigeria, several popular digital wallets are run by licensed commercial or microfinance banks rather than by mobile money operators, so a respondent may report such a wallet as a bank account or as mobile money depending on how the question was understood. If many respondents report bank-run wallets as bank accounts, Nigeria's mobile money rate will look lower, and its bank account rate higher, than a provider-based classification would show. The digitally enabled account counts both types together and the digital payment outcome does not depend on account type at all, so both are much less exposed to this problem, although both still rely on respondents reporting digital use correctly. We were unable to check whether the classification issue changed over time, because harmonised microdata for the 2021 round are not among the files used here; a comparison of the 2021 and 2025 rounds for Nigeria would be a useful extension.

For every pairing of Nigeria with a neighbour we estimate a weighted twofold Oaxaca-Blinder decomposition (Oaxaca, 1973; Blinder, 1973; Jann, 2008) with linear probability models. Following Neumark (1988), the reference coefficients come from a pooled model that also contains a country indicator. The explained component values the difference in average characteristics at these reference coefficients; the unexplained component collects differences in how the same characteristics relate to adoption, together with everything the model omits. The decomposition is descriptive and its division depends on the specification and on the reference coefficients chosen. It does not show that changing a characteristic, such as phone or identity document ownership, would reduce the gap by the amount attributed to it, and the unexplained component is not an estimate of the causal effect of regulation. To show how much the choice of reference matters, Table 3 reports the explained component when Nigeria's or the neighbour's own coefficients are used instead, and when it is computed from a pooled logit model following Fairlie (2005). Standard errors are obtained from 300 bootstrap replications that resample respondents within each country.

Survey design. The public Findex files contain only the survey weight, the region, the adult population and a respondent identifier. No primary sampling unit or stratum variable is provided, so design-based standard errors cannot be calculated, and our standard errors treat respondents within a country as independent. Because Findex samples are clustered, the true standard errors are probably larger. We therefore repeat every inference with all standard errors multiplied by 1.5, which corresponds to a design effect of 2.25 on the variance. We chose this factor as a conservative value within the range typical of clustered national household surveys, not as an estimate for Findex, and we report which conclusions do not survive it.

$$\bar{Y}_{NG} - \bar{Y}_{C} = (\bar{X}_{NG} - \bar{X}_{C})'\beta^{*} + [\bar{X}_{NG}'(\beta_{NG} - \beta^{*}) - \bar{X}_{C}'(\beta_{C} - \beta^{*})]$$

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IV. RESULTS

4.1 Account ownership in regional context

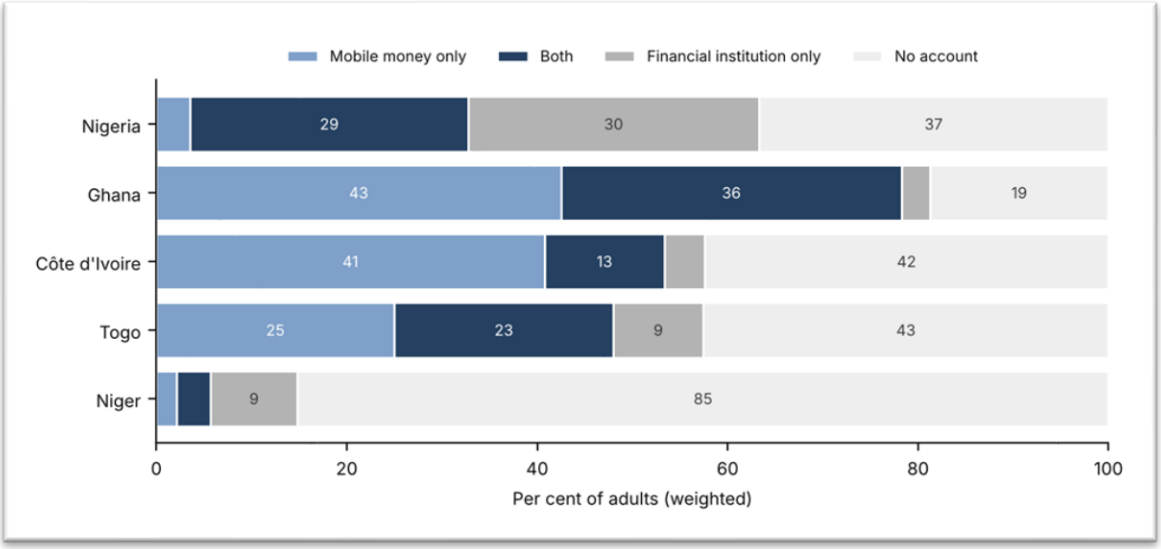
Table 1. Account ownership, digital use and characteristics of adults, 2025 (weighted per cent)

	Nigeria	Ghana	Côte d'Ivoire	Togo	Niger
Any account	63.3	81.2	57.6	57.4	14.8
Financial-institution account	59.7	38.7	16.8	32.4	12.7
Mobile money account	32.8	78.3	53.4	48.0	5.7
Digitally enabled account	53.1	79.3	53.9	51.3	7.4
Made or received a digital payment	54.5	80.4	56.5	53.1	12.3
Applied for a loan using a mobile phone	7.1	24.9	6.7	11.2	8.7
Owns a mobile phone	83.8	87.7	89.2	82.5	53.7
Owns a smartphone	33.7	53.5	45.7	45.1	18.2
Used the internet (past 3 months)	37.7	54.8	47.2	43.7	15.6
Owns a foundational ID	79.1	87.9	78.4	62.0	53.1
Secondary education	54.5	55.3	29.6	32.3	5.7
Urban	47.3	45.6	34.0	35.5	16.5
Mobile money among adults with a financial-institution account	49.0	92.4	75.1	70.9	28.0
Mobile money among adults without a financial-institution account	8.8	69.4	49.0	37.0	2.5

Note: Global Findex 2025 microdata, adults aged 15 and over, about 1,000 respondents per country; weighted shares. Account definitions follow the Findex database (World Bank, 2025*)*.

How Nigeria compares depends on which account is counted. A mobile money account is held by 32.8 per cent of Nigerian adults, compared with 78.3 per cent in Ghana, 53.4 per cent in Côte d'Ivoire and 48.0 per cent in Togo. A financial-institution account, by contrast, is held by 59.7 per cent of Nigerians, more than in any of the other four countries. Taking the two together, Nigeria's digitally enabled account rate of 53.1 per cent is close to those of Côte d'Ivoire (53.9) and Togo (51.3); only Ghana (79.3) is clearly higher, while Niger trails on every indicator.

Figure 1. Types of account held by adults, 2025 (weighted per cent)



Source: authors' calculations from Global Findex 2025 microdata.

Figure 1 breaks account holders down by type. A mobile money account is the only account for 42.5 per cent of Ghanaian adults but for just 3.5 per cent of Nigerian adults, whereas 30.5 per cent of Nigerians hold only a financial-institution account. Among adults with no financial-institution account, mobile money is used by 69.4 per cent in Ghana, 49.0 per cent in Côte d'Ivoire and 37.0 per cent in Togo, but by 8.8 per cent in Nigeria. In Nigeria, then, mobile money is mostly an additional account for people who already bank rather than a first account for those who do not.

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4.2.Decomposition of the cross-country gaps

Table 2. Decomposition of the gap between Nigeria and each neighbour (percentage points, Nigeria minus neighbour)

Comparison and outcome	Gap	Explained	Unexplained	Of which explained by phone, smartphone and ID
Ghana: Mobile money	-45.5*** (2.4)	-6.8*** (1.5)	-38.7*** (2.3)	-6.6***
Ghana: Digitally enabled account	-26.1*** (2.6)	-7.6*** (1.8)	-18.5*** (2.3)	-7.3***
Ghana: Any account	-18.0*** (2.6)	-6.8*** (1.8)	-11.1*** (2.2)	-6.3***
Ghana: Any digital payment	-25.9*** (2.5)	-7.1*** (1.7)	-18.8*** (2.2)	-6.9***
Côte d'Ivoire: Mobile money	-20.6*** (2.6)	-1.5 (1.8)	-19.1*** (2.6)	-4.1***
Côte d'Ivoire: Digitally enabled account	-0.8 (2.7)	-0.7 (2.1)	-0.1 (2.6)	-4.4***
Côte d'Ivoire: Any account	+5.7** (2.8)	-0.7 (2.0)	+6.4** (2.6)	-4.0***
Côte d'Ivoire: Any digital payment	-2.0 (2.7)	-2.1 (2.0)	+0.1 (2.7)	-4.4***
Togo: Mobile money	-15.2*** (3.1)	-2.2 (1.8)	-13.0*** (2.9)	-3.3***
Togo: Digitally enabled account	+1.8 (3.2)	+0.1 (1.9)	+1.7 (3.0)	-1.9
Togo: Any account	+5.8* (3.1)	+0.8 (2.0)	+5.0* (2.9)	-1.0
Togo: Any digital payment	+1.4 (3.1)	-0.9 (2.0)	+2.3 (2.9)	-1.9

Note: weighted twofold Oaxaca-Blinder decomposition with pooled reference coefficients (Neumark, 1988); bootstrap standard errors (300 replications) in parentheses. Covariates: gender, age, age squared, education, income quintile, labour-force participation, urban residence, phone, smartphone and ID ownership. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$, before inflating standard errors.

Table 3. Sensitivity of the explained component to the reference coefficients (percentage points)

Comparison and outcome	Gap	Explained: pooled reference (Table 2)	Explained: Nigeria coefficients	Explained: neighbour coefficients	Explained: pooled logit
Ghana: Mobile money	-45.5	-6.8	-9.1	-5.4	-9.4
Ghana: Digitally enabled account	-26.1	-7.6	-10.0	-5.7	-8.7
Côte d'Ivoire: Mobile money	-20.6	-1.5	-3.6	+0.8	-3.4
Côte d'Ivoire: Digitally enabled account	-0.8	-0.7	-2.7	+0.8	-0.1
Togo: Mobile money	-15.2	-2.2	-2.8	-1.6	-4.1
Togo: Digitally enabled account	+1.8	+0.1	+1.3	-1.5	+0.5

Note: the explained component is the difference in mean characteristics valued at the stated coefficients. The pooled logit version is the difference in mean predicted probabilities from a pooled logit model (Fairlie, 2005).

Measured characteristics account for only a small part of Nigeria's mobile money gap. With pooled reference coefficients, 6.8 of the 45.5 points separating Nigeria from Ghana (15 per cent) are attributed to characteristics, 6.6 points of them to Ghana's higher ownership of smartphones, phones and identity documents. Table 3 shows that this figure varies with the reference: 5.4 points with Ghana's coefficients, 9.1 points with Nigeria's and 9.4 points in the logit version. Whichever reference is used, at least about three quarters of the gap is left unattributed. Against Côte d'Ivoire (-20.6 points) and Togo (-15.2 points), little of the gap is attributed to characteristics, and differences in education and income, if anything, favour Nigeria. All three mobile money gaps remain highly significant when standard errors are multiplied by 1.5.

Digitally enabled accounts tell a different story. Nigeria's gap is close to zero against Côte d'Ivoire (-0.8 points) and Togo (+1.8), and against Ghana it is 26.1 points, of which about 29 per cent is attributed to characteristics, again mostly devices and identity documents. Nigerians who resemble their neighbours are therefore much less likely to use mobile money but not much less likely to be digitally included. The digital payment outcome, which does not depend on account type, gives gaps of -25.9 points with Ghana, -2.0 with Côte d'Ivoire and +1.4 with Togo, so the contrast between mobile money and digital inclusion does not appear to be produced by how accounts are classified.

4.3 Mobile money and bank accounts

A bank account could in principle make mobile money unnecessary, but the data do not show simple substitution. Within every country, holding a financial-institution account is positively associated with having mobile money after controls (Nigeria +16.8 points, $p < 0.001$; Ghana +4.2 points), and in a pooled model the association in Nigeria does not differ significantly from that elsewhere (+3.3 points, $p = 0.407$). The difference lies in adults who have no bank account: mobile money reached many of them in Ghana and the coastal UEMOA countries, and few of them in Nigeria.

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4.4 Who is left out in Nigeria

Table 4. Correlates of account ownership in Nigeria (average marginal effects, percentage points)

	Mobile money	Digitally enabled account	Financial-institution account
Female	-8.0** (3.1)	-7.8** (3.6)	-10.1*** (3.7)
Secondary education	+6.1 (4.1)	+9.5** (4.1)	+14.2*** (4.6)
Tertiary education	+24.2** (11.2)	+17.3** (8.7)	+8.7 (8.8)
Richest income quintile	+9.9* (5.7)	+8.6* (5.1)	+17.0*** (5.9)
Urban	-2.6 (3.2)	-3.6 (3.3)	+1.4 (3.8)
Owns a mobile phone	+15.7* (8.3)	+22.6*** (7.7)	+15.0** (6.6)
Owns a smartphone	+29.1*** (4.1)	+30.8*** (4.1)	+26.3*** (3.9)
Owns a foundational ID	+10.5* (6.2)	+18.9*** (6.7)	+14.0** (6.2)
Weighted mean of outcome	32.8	53.1	59.7
Observations	1000	1000	1000

Note: weighted logit models with all covariates of Table 2; robust standard errors in parentheses. Income quintiles below the richest, age and labour-force participation are included but not shown. *** p < 0.01, ** p < 0.05, * p < 0.10.

Inside Nigeria, owning a smartphone is the characteristic most strongly associated with every type of account (+29.1 points for mobile money). Compared with men who are otherwise similar, women are 8.0 points less likely to have mobile money (p = 0.010) and 7.8 points less likely to have a digitally enabled account. Before controls, the gender gap in mobile money is 15.5 points in Nigeria (standard error 3.7), 5.3 points in Ghana (standard error 3.2) and 26.3 points in Togo. The Nigerian gap is significant with and without the 1.5 adjustment. The 10.2-point difference between the Nigerian and Ghanaian gaps (standard error 4.9) is significant at 5 per cent only with the unadjusted standard errors, so we do not conclude that the gender gap is larger in Nigeria than in Ghana. Togo's even larger gap also indicates that a wide gender gap is not specific to Nigeria's regulatory model.

Table 5. Reasons given for not having a mobile money account (weighted per cent of adults without one)

	Nigeria	Ghana	Côte d'Ivoire	Togo	Niger
Lack of money	47.4	48.3	66.0	68.7	73.6
Worried about security	30.5	19.7	28.4	22.8	20.3
Lack of documentation	26.8	23.9	32.7	25.7	38.3
Agents too far away	26.2	34.4	33.8	47.6	41.8
Too expensive	15.3	20.8	20.1	24.6	34.2

Note: respondents could give more than one reason. Asked of adults without a mobile money account.

Nigerians without mobile money most often say they lack money (47.4 per cent) or worry about security (30.5 per cent); the security share is higher than in any of the other four countries. Cost is the least common reason (15.3 per cent), suggesting that fees are not the main obstacle.

4.5 Decomposing the gender gap within Nigeria

Table 6. Decomposition of the gender gap within Nigeria (percentage points, men minus women)

Outcome	Gap	Explained	Unexplained	Of which: phone	Smartphone	ID	Income	Education
Mobile money	+15.5*** (3.3)	+8.0*** (2.4)	+7.6** (3.1)	+0.3	+3.2	+0.3	+1.8	+1.1
Digitally enabled account	+17.5*** (4.2)	+9.4*** (3.1)	+8.1** (3.5)	+0.8	+3.0	+1.0	+2.2	+1.8
Financial-institution account	+20.8*** (4.5)	+10.5*** (3.0)	+10.3*** (3.8)	+0.7	+2.2	+0.9	+2.9	+2.4

Note: weighted twofold Oaxaca-Blinder decomposition with pooled reference coefficients and the covariates of Table 2 except gender; bootstrap standard errors (300 replications) in parentheses. *** p < 0.01, ** p < 0.05, * p < 0.10, before inflating standard errors.

Of the 15.5-point gender gap in mobile money, 8.0 points, about half, are attributed to measured characteristics, and devices and identity documents together contribute 3.8 points. Smartphones account for nearly all of this (3.2 points): 29.1 per cent of women own one, compared with 38.2 per cent of men. Basic phones (81.7 against 85.8 per cent) and identity documents (76.4 against 81.7 per cent) add 0.3 and 0.3 points, and income and education contribute less. The other two outcomes show the same pattern.

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The unattributed half is significant with unadjusted standard errors but not after the 1.5 adjustment, so we do not treat it as distinguishable from zero.

Among rural adults, 17.3 per cent of women and 40.1 per cent of men have mobile money, a gap of 22.8 points (standard error 5.0); among urban adults the gap is 7.1 points (standard error 5.4). The gap is also present among phone owners (16.1 points), so owning a phone does not by itself remove it. The 15.6-point rural-urban difference is significant with unadjusted standard errors ($p = 0.033$) but not after the adjustment ($p = 0.156$). We therefore say only that the rural gap is larger in this sample, not that the gender gap is concentrated in rural areas. Each subgroup estimate rests on roughly 200 to 500 respondents.

V. DISCUSSION

Nigerian adults who match their Ghanaian, Ivorian or Togolese counterparts in income, education, devices and identity documents are still much less likely to have mobile money, and little of the gap is attributable to those characteristics. The unattributed remainder is consistent with differences on the supply side, Nigeria's bank-led regulatory history among them, but it cannot be read as the effect of regulation: it equally reflects trust, the availability of agents, product design, preferences the survey does not measure and the classification issues described in Section 3. The clearer pattern is that Nigeria has achieved digital inclusion largely through banks, which reach educated, better-off and urban adults, while mobile money has seldom reached the roughly one in three adults without any account.

Four supply-side explanations are plausible, and the survey speaks to each only in part. The first is licensing: telecom operators could not offer mobile money on their own account until the payment service bank licence was introduced in 2018, and the first such banks opened only in 2022, so the 2025 survey observes an early stage of non-bank provision. The second is the agent network, which was central to the spread of mobile money in Kenya (Suri, 2017); yet Nigerians without mobile money rarely mention distance to agents (26.2 per cent), so distance alone seems unlikely to be the main barrier. The third is trust, given that security concerns are mentioned more often in Nigeria than in any of the neighbouring countries. The fourth is substitution by bank products: banking apps and USSD services already give account holders many of the payment functions of mobile money and may reduce their demand for a separate wallet. Separating these explanations would require data on agents, product offers and complaints that Findex does not collect.

How much the gap matters depends on who is affected. For adults who already bank by phone, not having a mobile money account may cost little, because they can obtain many of its documented benefits, such as cheaper transfers and better risk sharing (Jack & Suri, 2014), through their bank. The concern is the one in three adults without any account. Elsewhere in the region mobile money has been their first account, with documented gains in consumption smoothing and poverty reduction, especially for women (Suri & Jack, 2016; Suri, 2017). In Nigeria that route has so far been little used.

Three cautions apply. The unexplained component is not a measure of regulation, since it also absorbs unobserved preferences, trust, agent coverage and measurement error. Bank-run wallets reported as bank accounts would understate mobile money in Nigeria and sharpen the contrast. And samples of about 1,000 adults per country support national comparisons but not analysis by region within Nigeria.

5.1 Policy options to evaluate

The options below follow from the patterns described above. None is an effect shown by this analysis, and each would need evaluation.

- Track reach, not only licences: a key test for payment service banks is whether they open first accounts for adults who have none, particularly women and rural adults, rather than adding wallets for those already banked. Later Findex rounds and administrative data can measure this.

- Pilot combined device and identity interventions: smartphone and identity document ownership are most strongly associated with account ownership, so programmes that link low-cost devices, National Identification Number enrolment and account opening merit evaluated pilots, although the decomposition does not show that they would close the gap by the amount attributed to these characteristics.

- Study consumer protection: in light of the trust concerns discussed above, the effect of fraud redress and agent supervision on adoption deserves direct investigation.

- Report by gender: Nigerian women are clearly less likely than men to have mobile money or a digital account, so evaluations of new channels should report results separately for women.

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VI. CONCLUSION

Nigeria trails its neighbours in mobile money but, except relative to Ghana, not in digital accounts. Most of the mobile money gap is not attributable to the measured characteristics of its adults, and in Nigeria mobile money seldom reaches people without a bank account. As telecom-owned payment service banks grow, future Findex rounds will show whether widening the set of providers reaches those who have been left out. The results are descriptive associations, and the standard errors do not reflect the survey design.

DECLARATIONS

Data availability. The Global Findex 2025 individual-level files are published by the World Bank in its Microdata Library; we do not redistribute them. Our replication material recreates every table, figure and the manuscript itself from those files and documents the construction of each variable.

Funding. This research was not supported by a grant. **Competing interests.** None to declare. **Use of AI tools.** We used an AI assistant to help write code and polish the language; the research design, the interpretation and the verification of all numbers against the code output are our own.

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