IIAR JOURNALS

Innovating Knowledge. Advancing Research.

IIAR Journal of Student Research

Vol 1, No 1, 2026

Fintech, Remittances and Development: A Theoretical Account of How Digital Transfer Infrastructures Reshape the Cost, Direction and Developmental Use of Migrant Money

Nwogboji Emmanuel Usulor[1], Paul Idowu Bamigbola[2]

[1,2] Veristzon Global Research Lab

ABSTRACT

Remittances are among the largest and most stable external financial flows reaching Sub-Saharan Africa, and the infrastructure that carries them is being rebuilt. Mobile money operators, digital money transfer firms and neo-banks now compete with banks and informal agents, while cryptocurrency and stablecoin rails offer routes that bypass both banks and regulators. Research has measured the effects of these changes on prices, volumes and household welfare, but it has not explained in a unified way how the properties of a transfer channel shape what migrant money does. This conceptual, non-empirical paper addresses that gap. It integrates four bodies of peer-reviewed scholarship published between 2023 and 2026: migration-and-development research on remittance use; the economics of remittance costs and channel choice; fintech and mobile-money studies; and emerging work on cryptocurrency, stablecoin and central bank digital currency infrastructures. Every source was checked against its Crossref record and screened for retractions, corrections and editorial notices. From this synthesis the paper builds a cost–traceability–programmability framework. It argues that digital infrastructures lower the cost of sending money, alter traceability in both directions by making formal flows more visible and crypto-based flows less so, and introduce programmability for the first time, allowing remittances to be earmarked, conditioned or pooled. Five propositions follow, concerning the effects of cost on the volume, frequency and use of transfers; the regulatory dilemma between formalisation and exclusion; the distributional consequences when the cheapest channels are the least regulated; the shift of control over migrant money that programmability makes possible; and the dependence of developmental impact on complementary institutions. Nigeria, one of Africa's largest remittance recipients and a prominent site of cryptocurrency use, is the anchoring case. The paper recommends proportionate, risk-based regulation, protection of senders and recipients across all channels, and caution about programmable features that move control over migrant money away from migrants and their families.

Keywords: remittances; fintech; mobile money; digital payments; migration and development

Fintech, Remittances and Development: A Theoretical Account of How Digital Transfer Infrastructures Reshape the Cost, Direction and Developmental Use of Migrant Money

1. INTRODUCTION

A Nigerian nurse in Leeds who wants to send money to her mother in Owerri now has more choices than ever. She can use a bank, a global money transfer operator, a digital-only remittance app, a neo-bank account, an informal agent who settles accounts through trade, or a cryptocurrency exchange that converts pounds into stablecoins and then into naira through a peer-to-peer market. Each option has a different price, a different exchange rate, a different speed, and a different visibility to regulators. Increasingly, some of them also offer ways to decide in advance how the money will be used. The question this paper asks is whether these differences matter only for the sender's wallet, or whether they also change what remittances do in the economy and society that receives them.

The migration-and-development literature has long debated the developmental effects of remittances. Recent studies continue to find effects on household consumption and diet (Sangwan & Tasciotti, 2023), on labour supply in Nigeria (Alhassan et al., 2024), on poverty in combination with digital financial inclusion (Inoue, 2024), and on growth, with attention to the role of institutional quality (Delessa et al., 2024). A separate literature examines the channel itself. It shows that remittances respond strongly to cost (Okello, 2025), examines the effects of cost transparency tools on flows (Gurira, 2024) and of anti-money laundering rules on costs (Thakur et al., 2025), and finds that migrants choose between formal and informal modes for reasons that go beyond price (MacIsaac, 2024). A third body of work studies mobile money as an infrastructure of resilience and risk-sharing (Egami et al., 2025; Yao et al., 2023). A fourth, still small, examines cryptocurrency and stablecoin remittances (Ante, 2025; Robins, 2025) and central bank digital currencies such as Nigeria's eNaira (Dafe, 2026; Ozili, 2023).

These literatures rarely meet. The development literature tends to treat the channel as given, while the channel literature tends to stop at price and volume. The result is a gap in theory. There is no framework that explains how particular properties of a transfer infrastructure shape the volume, direction and use of migrant money, or why the same innovation can widen inclusion in one setting and deepen exclusion in another. The paper fills this gap with three objectives: to identify the properties of a remittance channel that matter for development; to state their consequences as testable propositions; and to draw implications for African remittance-receiving states, with Nigeria as the anchoring case.

2. LITERATURE REVIEW

2.1 CONCEPTUAL REVIEW

Remittances. Remittances are transfers of money and goods by migrants to individuals and communities in their places of origin. Pinkow-Läpple and Möllers (2025) argue for a wider framework that also includes social and intangible remittances, such as ideas, skills and norms. This paper focuses on financial remittances but recognises that money travels with expectations attached.

Remittance channel. A channel is the combination of institutions, technologies and rules through which value moves from sender to recipient. It includes formal channels (banks, money transfer operators, mobile money and neo-banks), informal channels (agents, couriers and trade-based settlement) and emerging crypto-based channels. MacIsaac (2024) shows that migrants' choice of channel, which he terms remittance modality, depends on access, trust, networks and purpose as well as on price.

Fintech and digital transfer infrastructure. Fintech refers to the use of digital technology to deliver financial services. In the remittance market it includes digital money transfer platforms, mobile money, neo-banks, cryptocurrency and stablecoin services, and central bank digital currencies. Seck-Sarr (2024) shows that "mobile money" itself covers a varied set of initiatives, actors and strategies.

© IIARJournal. All rights reserved.

Cost, traceability and programmability. Cost is the full price of a transfer, including fees, exchange-rate margins, taxes and the time and effort of sending and collecting. Traceability is the extent to which a transfer can be observed and linked to identified parties by providers, regulators and others. Programmability is the extent to which rules about the timing, recipient or use of money can be built into the transfer itself.

2.2 THEORETICAL REVIEW

Three theoretical traditions underpin the framework.

The first is the migration-and-development tradition, including the household-strategy view of remittances. It treats remittances as part of a family's strategy to manage risk and invest across locations. Egami et al. (2025) show this logic at work in internal mobile money remittances during a COVID-19 lockdown, when urban migrants and rural families shared resources to cope with an aggregate shock. Yet remittances are not purely economic. Son and Yun (2025) show how affective and moral pressures shape remitting even where migrants are cut off from home. This tradition explains why remittances matter. It is less precise about how the infrastructure shapes them.

The second tradition is transaction-cost and financial-inclusion economics. It predicts that lower costs raise the volume and frequency of transfers and draw senders from informal to formal channels, and that formal channels in turn connect recipients to savings, credit and insurance. Okello (2025) finds that remittances are highly elastic to cost, and Inoue (2024) examines how digital financial inclusion and international remittances together relate to poverty reduction. Gurira (2024, 2026) studies the effect of the World Bank's Remittance Prices Worldwide comparison tool on remittance flows and on the market value of dominant transfer providers. This tradition explains the cost dimension well but treats traceability mainly as a cost of compliance.

The third tradition is the political economy of money and financial infrastructure. It treats payment systems as sites of power. Dafe (2026) argues that central banks in lower-income countries invest in central bank digital currencies partly to reduce their dependence on infrastructures they do not control, using the introduction of Nigeria's eNaira as a case. Ozili (2026) shows how de-risking by banks pushes people out of the formal financial system against their will. Historical work reminds us that states have long sought to direct migrant money. Daimon (2024) examines the politics of the migrant labour remittance system in British Central Africa between the 1930s and the 1960s, at the interface between imperial social engineering and African workers' consciousness. This tradition explains why traceability and programmability are political questions, not only technical ones.

2.3 EMPIRICAL REVIEW

Cost. Okello (2025) studies how mobile money affects remittance costs, flows and monetary policy in Uganda, and finds that remittances are highly elastic to cost. Thakur et al. (2025) examine how anti-money laundering measures affect remittance costs and whether frontier technologies such as distributed ledgers and central bank digital currencies moderate that relationship. Badre (2024) examines neo-banks as a cheaper option for North African migrants in Europe. Taxes are part of cost. Takyi (2025) shows that Ghana's electronic transaction levy reduced mobile money transaction values, and Yeandle and Doyle (2026) find experimental evidence that priming the levy lowered tax morale.

Channel choice and traceability. MacIsaac (2024) shows that informal remittances persist among some groups despite formalisation policies. Crush and Tawodzera (2023) examine the South Africa–Zimbabwe corridor during COVID-19 and test narratives of remittance pessimism, resilience and rerouting, including a shift from informal to formal digital remitting. Sunu and Ramachandran (2026) find, for the Ghana–Canada corridor, that fragmented infrastructure and regulation keep costs high and sustain cheaper but less secure informal forms. Makmur (2024) asks why anti-money laundering scrutiny focuses on formal finance while informal remittance networks receive less regulatory attention. At the other end of the spectrum, Robins (2025) shows that cryptocurrency remittances to Latin America and the Caribbean, and to Venezuela in particular, overcome many regulatory and practical barriers, and maps their geographies.

Crypto, stablecoins and CBDCs. Ante (2025) finds that digital and financial literacy drive the adoption of

© IIARJournal. All rights reserved.

stablecoins for cross-border remittances, with younger and more educated users leading. In Nigeria, Abdurrahaman et al. (2026) examine how perceived emotional and financial value and trust affect cryptocurrency adoption, while Olatunji (2024) critically assesses the country's regulation of cryptocurrency. Ozili (2023) studies public interest in the eNaira and its link to interest in fintech and cryptocurrency, and Dafe (2026) explains the eNaira as a bid for infrastructural autonomy.

Development use. Yao et al. (2023) study the role of mobile money in household resilience in Kenya, and Johnen et al. (2023) highlight the role of mobile money agents in adoption. Lower friction is not always benign. Nan and Li (2024) examine the effect of mobile money on gambling in Kenya. Abdul Mannan and Farhana (2023) study digital financial inclusion and remittances among Bangladeshi migrant households. In Nigeria, Alhassan et al. (2024) examine whether education and household income shape how remittances affect recipients' labour supply. Delessa et al. (2024) examine whether institutional quality and macroeconomic stability condition the growth effects of remittances in Sub-Saharan Africa. García (2024) documents remittance-financed social protection programmes for migrant workers in Latin America, an example of pooled remittances serving a collective purpose. Anaman et al. (2023) examine whether international remittances affect political participation in Ghana.

2.4 GAPS IN THE LITERATURE

The review reveals three gaps. First, studies of cost, regulation and development use are rarely connected, so the pathways from channel features to developmental outcomes remain implicit. Second, traceability is usually treated as a compliance burden, although it also shapes access to credit, exposure to surveillance and the choice between formal and informal channels. Third, programmability is almost absent from remittance theory, although stablecoins, central bank digital currencies and platform features now make it technically feasible. The framework proposed here responds to all three.

3. MATERIALS AND METHODS

Research design. This is a theoretical, non-empirical article. It uses integrative conceptual synthesis to build a framework and derive propositions that later empirical work can test. No human participants were involved and no primary data were collected, so population, sampling and instrument validation in the empirical sense do not apply.

Source identification. Literature was identified through structured searches of the Crossref metadata service and the OpenAlex scholarly index, using combinations of terms such as "remittances", "mobile money", "remittance costs", "fintech", "digital financial inclusion", "cryptocurrency remittances", "stablecoins", "eNaira", "central bank digital currency", "anti-money laundering", "de-risking", "informal remittances" and "Nigeria". Searches were run in October 2026.

Inclusion and exclusion criteria. Sources were included if they were peer-reviewed journal articles published between 2023 and 2026 and addressed remittance costs, channels, regulation, digital infrastructures or developmental use. Preprints, working papers, conference papers, practitioner notes, news items, grey literature and items without a resolvable digital object identifier (DOI) were excluded. Articles in outlets whose peer-review practices could not be confirmed, and articles carrying a correction or retraction notice, were also excluded.

Verification. Each candidate was checked against its Crossref record for DOI, authors, title, journal, volume, issue and pagination, and was screened for retractions, corrections and expressions of concern through Crossref update metadata and the OpenAlex retraction flag. Publication year follows the issue year where one exists. Thirty-seven articles met all criteria and are cited.

Analytic procedure. Sources were coded for the channel property they addressed (cost, traceability or programmability), the actors involved (migrants, recipients, providers, regulators and states), and the outcomes reported (volume, frequency, channel choice, household use, inclusion and exclusion). Coded material was compared across corridors and countries to identify recurring mechanisms, which were then stated as propositions. Nigerian, Ghanaian, Kenyan, Ugandan and Zimbabwean evidence was used to test the fit of each proposition.

Bases of judgement and trustworthiness. Conceptual work is judged by clarity, parsimony,

© IIARJournal. All rights reserved.

explanatory reach and falsifiability. Each proposition is stated so that it could prove wrong, and the discussion identifies evidence that would weaken it.

AI usage disclosure. Generative AI tools were used to assist with literature retrieval, metadata checking and language editing. The arguments, interpretations and conclusions were developed and reviewed by the author(s), who take full responsibility for the content. No AI tool is listed as an author, and no source was cited without verification against its publisher record.

Limitations. The synthesis is restricted to English-language journal articles from a four-year window. Peer-reviewed research on crypto-based remittances to Africa is still thin, so some arguments draw on evidence from other regions. The paper does not estimate magnitudes. It specifies mechanisms.

4. RESULTS AND DISCUSSION

4.1 RESULTS: THE COST–TRACEABILITY–PROGRAMMABILITY FRAMEWORK

The synthesis shows that three properties of a remittance channel matter for what migrant money does: cost, traceability and programmability. Digital infrastructures change each property in a different way. Table 1 summarises the framework across the main channel types.

Table. 1. The cost–traceability–programmability framework across remittance channels

Channel	Cost	Traceability	Programmability	Main risks for African senders and recipients
Bank and traditional money transfer operator	Highest in many African corridors; fees plus exchange-rate margins	High: identified accounts, reporting to regulators	None	Exclusion through de-risking; costs that push users to informal routes
Digital transfer firm, neo-bank and mobile money	Lower; competition and comparison tools add pressure on price	High: account-based and recorded	Limited: bill payment and earmarked products	Transaction levies; platform data capture; uneven agent networks
Informal agent and trade-based settlement	Often low, especially when official and parallel exchange rates diverge	Low	None	No consumer protection; exposure to fraud and enforcement
Cryptocurrency and stablecoin rails	Potentially low; depends on peer-to-peer spreads and volatility	Mixed: pseudonymous on-chain, identified at regulated exchanges	Possible through smart contracts	Volatility, fraud and scams; regulatory uncertainty; literacy barriers
Central bank digital currency (e.g., eNaira)	Potentially low for domestic legs	High: designed and overseen by the central bank	Technically possible; governed by the state	Surveillance and state conditioning of private transfers

Note. Compiled by the author(s) from the synthesis in Sections 2 and 4.1.

Cost falls, but not evenly. Digital channels lower fees and, in many corridors, narrow exchange-rate margins. Okello (2025) shows that remittances are highly elastic to cost, so cheaper mobile channels can raise flows substantially. Neo-banks and digital transfer firms add competition (Badre, 2024), and price-comparison tools have changed the information available to senders (Gurira, 2024, 2026). Two forces push costs back up. Compliance requirements add to the cost of formal channels (Thakur et al., 2025), and de-risking removes some customers and corridors altogether (Ozili, 2026). States also discover digital channels as a tax base. Ghana's electronic levy reduced mobile money transaction values (Takyi, 2025) and appears to have weakened tax morale (Yeandle & Doyle, 2026). Cost reduction is therefore real, but it is uneven and politically contested.

Traceability moves in both directions. Formal digital channels make transfers more visible than cash or informal agents ever were. Every transfer is linked to identified accounts and recorded by providers who report to regulators. This visibility supports anti-money laundering goals and can give recipients a transaction history that helps them access credit. It also extends state and corporate surveillance into family finance. Singler and Babalola (2025)

© IIARJournal. All rights reserved.

argue that Nigeria's emerging privacy legislation has developed alongside border and identity surveillance practices. Crypto-based channels move the other way. Robins (2025) shows how cryptocurrency remittances to Venezuela work around regulatory and practical barriers. In Nigeria, cryptocurrency use continued through peer-to-peer markets after restrictions on banks' involvement, and Olatunji (2024) critically assesses the regulatory framework. Informal channels persist between these poles (MacIsaac, 2024; Sunu & Ramachandran, 2026). The digital transformation therefore polarises traceability. It makes some flows more visible and others less so.

Programmability appears for the first time. Cash, bank transfers and mobile money move value but do not carry rules about its use. Tokenised money, whether stablecoins or central bank digital currencies, can carry rules about timing, recipient and purpose. Platforms can also offer earmarked products, such as direct payment of school fees or bills, or pooled contributions to community projects. García (2024) shows how remittances can be pooled to finance social protection for migrant workers. The idea of directing migrant money is not new. Daimon (2024) examines the politics of the migrant labour remittance system that colonial authorities operated in British Central Africa. What is new is that programmability can now be built into the money itself, and that control over the rules may sit with senders, platforms or states.

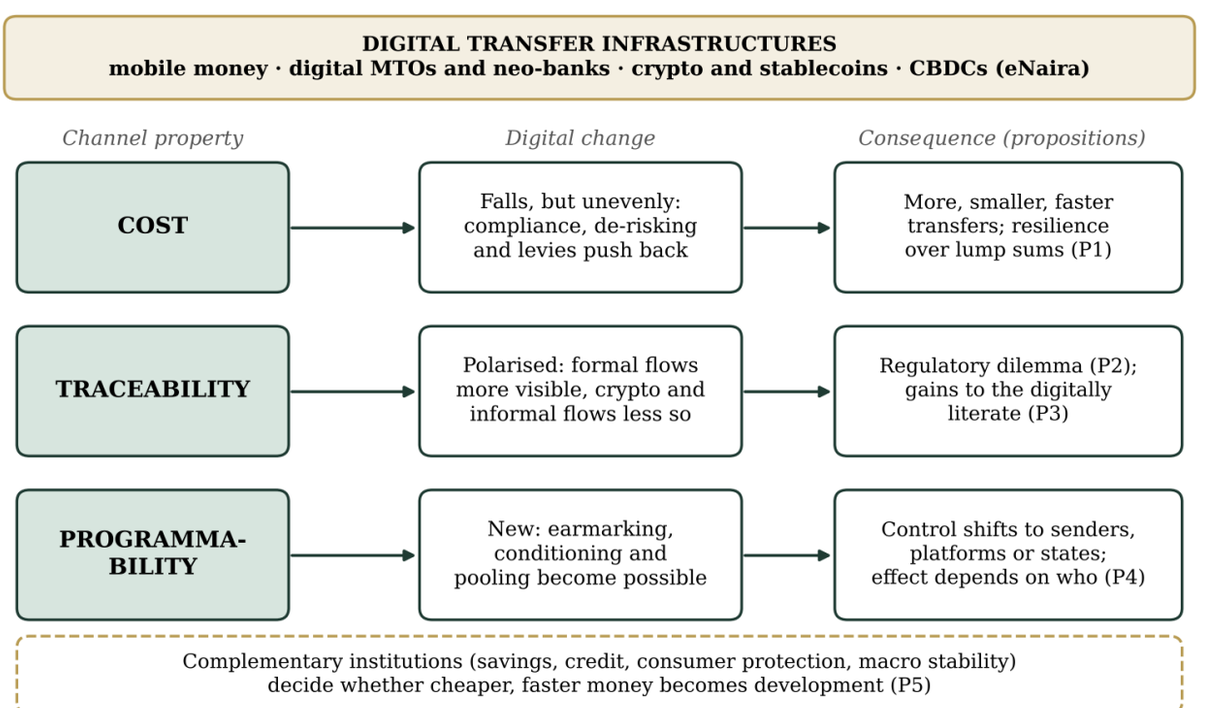


Figure. 1. The cost–traceability–programmability framework: how digital transfer infrastructures change three properties of remittance channels and their consequences. Source: developed by the author(s).

Five propositions follow from the framework.

Proposition 1: Lower costs raise the volume and frequency of remittances, and more frequent, smaller transfers tilt their use towards consumption smoothing and resilience. When sending is cheap and instant, migrants send smaller amounts more often and respond quickly to shocks. Egami et al. (2025) show mobile money remittances helping families cope with an aggregate shock, and Yao et al. (2023) examine the role of mobile money in household resilience in Kenya. This is a developmental gain, because it protects household consumption when shocks hit, and remittances have been linked to consumption and dietary diversity (Sangwan & Tasciotti, 2023). It may also reduce the share of remittances that arrive as lump sums suitable for investment, unless savings tools are attached to the channel. The proposition would be weakened by

© IIARJournal. All rights reserved.

evidence that falling costs raise transfer size without changing frequency, or that frequent small transfers are invested as often as larger ones.

Proposition 2: States face a regulatory dilemma in which tightening control over formal channels pushes some flows into less traceable ones. Formalisation brings protection, data and potential access to credit. Yet each layer of identification, reporting and taxation raises costs or excludes some users. When the formal price rises, or access is withdrawn through de-risking, senders turn to informal agents or crypto-based routes (MacIsaac, 2024; Ozili, 2026; Thakur et al., 2025). Makmur (2024) shows how regulatory attention can fall on formal finance while informal networks remain lightly scrutinised. The Ghanaian levy illustrates a related point, since a tax on digital transactions reduced their use (Takyi, 2025). Nigeria's experience with cryptocurrency points the same way: restrictions on banks' involvement did not end use but shifted it towards peer-to-peer intermediation, a regulatory history that Olatunji (2024) assesses critically. The proposition would be weakened by evidence that stricter formal-channel regulation reduces total informal and crypto-based flows rather than displacing them.

Proposition 3: When the cheapest channels are the least regulated, gains and risks are unevenly distributed. Crypto and peer-to-peer routes may offer better rates, especially when official and parallel exchange rates diverge. But using them requires digital and financial literacy. Ante (2025) finds that younger and more educated users lead stablecoin remittance adoption, and Abdurrahaman et al. (2026) examine the role of trust and perceived value in cryptocurrency adoption in Nigeria. Those who lack these resources either pay more in formal channels or face fraud, volatility and loss in unregulated ones, with little recourse. Taxes on mobile money can also be regressive (Yeandle & Doyle, 2026). The framework therefore predicts that digital innovation widens gaps between digitally literate and other migrant households unless consumer protection covers all channels. The proposition would be weakened by evidence that less-literate and lower-income households gain at least as much from low-cost digital channels as others do.

Proposition 4: Programmability shifts control over migrant money, and its developmental effect depends on who sets the rules. Programmable features can serve migrants' own goals. A sender may earmark funds for school fees, or a diaspora association may pool contributions for a clinic or a social protection scheme (García, 2024). Such uses can ease the moral and affective pressures that surround remitting (Son & Yun, 2025) and reduce disputes over how money was spent. But control can also shift to platforms, which design the rules and capture data, and to states, which may seek to direct remittances into approved uses, as colonial remittance systems once did (Daimon, 2024). Central bank digital currencies give central banks infrastructural options they previously lacked (Dafe, 2026). The proposition predicts that sender-led, voluntary programmability will support development, while state- or platform-led conditioning will reduce migrants' willingness to use the channel. It would be weakened by evidence that migrants are indifferent to who controls the rules attached to their transfers.

Proposition 5: Channel properties condition, but do not determine, developmental impact; complementary institutions decide whether cheaper, faster money becomes development. Research links the poverty effects of remittances to digital financial inclusion (Inoue, 2024) and asks whether their growth effects depend on institutions and macroeconomic conditions (Delessa et al., 2024). At household level, Alhassan et al. (2024) examine how education and income shape Nigerian recipients' labour-market responses. Lower friction can also make harmful uses easier, as research on mobile money and gambling in Kenya suggests (Nan & Li, 2024). Agent networks, savings products, credit, consumer protection and macroeconomic stability therefore determine how far channel improvements translate into development (Johnen et al., 2023). The proposition would be weakened by evidence that improved channels raise developmental outcomes uniformly across institutional settings.

Table 2 applies the framework to Nigeria.

© IIARJournal. All rights reserved.

Table. 2. Applying the framework to Nigeria: issues and policy responses

Property	Nigerian issue	Risk	Policy response
Cost	Gap between official and market exchange rates; high formal fees in some corridors	Formal channels lose flows to informal and peer-to-peer routes	Narrow exchange-rate gaps; promote competition among licensed providers
Traceability	Strict rules on formal channels alongside continued crypto and informal use	Displacement rather than formalisation; exclusion of low-income users	Proportionate, risk-based due diligence for small transfers; clear rules for virtual asset service providers
Programmability	eNaira and fintech platforms make conditional or earmarked transfers technically possible	State or platform control over private family transfers	Keep programmable features voluntary and sender-controlled; strong data protection
Development use	Large remittance-dependent household economy	Cheaper money without savings, credit or protection	Link channels to savings and pooled diaspora investment vehicles that migrants choose to join

Note. Developed by the author(s) from the propositions in Section 4.1.

4.2 DISCUSSION

The framework's main contribution is to separate three properties that the literature often merges. The question "is fintech good for remittances?" has no single answer, because fintech lowers cost, polarises traceability and introduces programmability, and these changes pull in different directions. The framework is consistent with evidence that remittances respond strongly to cost (Okello, 2025; Gurira, 2024) and with evidence that informal channels persist for reasons other than price (MacIsaac, 2024; Sunu & Ramachandran, 2026). It adds the insight that the distribution of traceability, not just its level, shapes who benefits.

Nigeria illustrates the stakes. Remittances are an important source of foreign exchange and household income, and diaspora engagement policy has focused heavily on mobilising them (Appe & Telch, 2026; Nnabuihe et al., 2024). The country has experimented with a central bank digital currency (Dafe, 2026; Ozili, 2023), restricted and then reconsidered its approach to cryptocurrency (Olatunji, 2024), and maintained a large informal remittance and foreign-exchange market. The framework explains why these choices interact. When the official channel is costly, because of fees or because of the gap between official and parallel exchange rates, traceable formal flows lose ground to less traceable alternatives. Tightening crypto rules does not by itself restore formal flows unless the formal channel becomes competitive. Ghana's mobile money levy offers a neighbouring lesson in how taxing digital channels can push users away (Takyi, 2025; Yeandle & Doyle, 2026).

The discussion also qualifies optimistic accounts of programmable money. Earmarking and pooling have real developmental appeal, and diaspora associations already pool money informally. Yet the history of colonial remittance systems (Daimon, 2024) and current debates about state control over digital money infrastructure (Dafe, 2026) show that programmability can serve control as easily as autonomy. Remittances are private transfers within families and communities. Policies that treat them as public development finance risk undermining the trust and obligations on which they rest (Son & Yun, 2025; Tawodzera, 2025).

The paper has limits. Peer-reviewed evidence on crypto remittances to Africa is still emerging, so Propositions 2 and 3 rely partly on evidence from other regions (Robins, 2025; Ante, 2025). Programmability is so far mostly a technical possibility, and Proposition 4 is therefore forward-looking. Future research could test the propositions using transaction data from mobile money and digital transfer providers, surveys of channel choice among Nigerian migrants in the United Kingdom, United States and Canada, and natural experiments created by changes in regulation and taxation. Research on whether remittances shape political participation (Anaman et al., 2023) could also be extended to ask whether digital channels change the political relationship between diaspora senders and home states.

5. CONCLUSION AND RECOMMENDATIONS

Digital transfer infrastructures do more than make remittances cheaper. They lower cost unevenly, make some flows more visible and others less so,

© IIARJournal. All rights reserved.

and, for the first time, make it possible to attach rules to migrant money. These changes affect how much is sent and how often, which channels are used, who gains, who controls the money and how it is used. The developmental value of remittances therefore depends on the design of the channel and on the institutions around it.

Several recommendations follow for African remittance-receiving states, with Nigeria in view. Regulators should apply proportionate, risk-based customer due diligence to low-value remittances, so that compliance does not push senders into less safe channels. Central banks should narrow the gap between official and market exchange rates and promote competition among formal providers, because no regulation will hold flows in channels that are much more expensive than the alternatives. Consumer protection, dispute resolution and fraud safeguards should cover digital, mobile and crypto-based remittance services, with clear rules for virtual asset service providers. Governments should be cautious about taxing remittance and mobile money transactions, since such taxes can be regressive and can drive users away. Programmable features should remain voluntary and sender-controlled, with strong data protection and no conditioning of private remittances by the state. Diaspora institutions such as the Nigerians in Diaspora Commission should support pooled, transparent investment and social protection vehicles that migrants can choose to join. Finally, data on remittances through all channels should be improved, so that policy can respond to where money actually flows.

6. CONTRIBUTION TO EXISTING KNOWLEDGE

The paper contributes in four ways. Conceptually, it offers the cost–traceability–programmability framework, which separates three channel properties that existing research merges and introduces programmability as a new dimension of remittance theory. Theoretically, it links the economics of remittance channels to the developmental use of remittances through five falsifiable propositions on volume and frequency, the regulatory dilemma, distribution, control and complementary institutions. Contextually, it places African, and particularly Nigerian, remittance infrastructures at the centre of a debate often framed around global averages, taking account of mobile money, eNaira, cryptocurrency regulation and Ghana's mobile money levy. Practically, it gives regulators and diaspora institutions a way to assess fintech innovations by their effects on cost, traceability and control over migrant money, not by their novelty alone.

7. REFERENCES

Abdul Mannan, K., & Farhana, K. M. (2023). Digital financial inclusion and remittances: An empirical study on Bangladeshi migrant households. *FinTech*, *2*(4), 680–697. https://doi.org/10.3390/fintech2040038

Abdurrahaman, D. T., Ayetigbo, O. A., Okunlola, O. C., & Adegbola, A. E. (2026). Revisiting the factors affecting cryptocurrency adoption: Evidence from Nigeria. *Journal of African Business*, *27*(1), 145–172. https://doi.org/10.1080/15228916.2024.2432695

Alhassan, U., Maswana, J., & Inaba, K. (2024). International remittances and labor supply in Nigeria: Do educational attainment and household income matter? *African Development Review*, *36*(3), 471–485. https://doi.org/10.1111/1467-8268.12769

Anaman, G., Allor, P., & Kuffuor, O. (2023). International remittances and political participation in Ghana. *Scientific African*, *22*, e01941. https://doi.org/10.1016/j.sciaf.2023.e01941

Ante, L. (2025). From adoption to continuance: Stablecoins in cross-border remittances and the role of digital and financial literacy. *Telematics and Informatics*, *97*, 102230. https://doi.org/10.1016/j.tele.2024.102230

Appe, S., & Telch, F. (2026). Diaspora engagement strategies for development: A comparative analysis of Egypt, India, Mexico, Nigeria, and the Philippines. *Journal of Comparative Policy Analysis: Research and Practice*, *28*(3), 315–339. https://doi.org/10.1080/13876988.2026.2627300

Badre, A. (2024). Impacts of neo-banks on North African migrants' remittances and financial inclusion. *Scientific African*, *26*, e02384. https://doi.org/10.1016/j.sciaf.2024.e02384

Crush, J., & Tawodzera, G. (2023). Digital disruptions in the South Africa–Zimbabwe remittance corridor during COVID-19. *Migration and Development*,

© IIARJournal. All rights reserved.

12(2), 157–173. https://doi.org/10.1177/21632324231205996

Dafe, F. (2026). Central bank digital currencies, financial subordination and the quest for infrastructural autonomy: The introduction of the eNaira in Nigeria. *New Political Economy*. Advance online publication. https://doi.org/10.1080/13563467.2026.2737141

Daimon, A. (2024). The politics of the migrant labor remittance system in British Central Africa, 1930s–1960s. *African Economic History*, *52*(2), 46–79. https://doi.org/10.3368/aeh.52.2.46

Delessa, K., Alemu, T., & Bane, J. (2024). Remittances inflow and economic growth nexus in Sub-Saharan Africa: Do institutional quality and macroeconomic stability matter? *Heliyon*, *10*(3), e25690. https://doi.org/10.1016/j.heliyon.2024.e25690

Egami, H., Mano, Y., & Matsumoto, T. (2025). Mobile money remittances to cope with aggregate shocks: Urban migrants and rural families under the COVID-19 lockdown in Bangladesh. *World Development Sustainability*, *6*, 100197. https://doi.org/10.1016/j.wds.2024.100197

García, C. L. (2024). Remittance-financed social protection programmes for international migrant workers in Latin America. *International Social Security Review*, *77*(3), 123–141. https://doi.org/10.1111/issr.12369

Gurira, P. (2024). The impact of international money transfer cost transparency on remittance flows to emerging economies. *International Journal of Managerial Finance*, *20*(3), 608–626. https://doi.org/10.1108/IJMF-06-2022-0254

Gurira, P. (2026). The valuation effects of remittance cost transparency on international money transfer providers. *International Journal of Emerging Markets*, *21*(6), 1679–1699. https://doi.org/10.1108/IJOEM-04-2024-0691

Inoue, T. (2024). Digital financial inclusion, international remittances, and poverty reduction. *Journal of Economic Structures*, *13*(1), 8. https://doi.org/10.1186/s40008-024-00328-z

Johnen, C., Parlasca, M., & Mußhoff, O. (2023). Mobile money adoption in Kenya: The role of mobile money agents. *Technological Forecasting and Social Change*, *191*, 122503. https://doi.org/10.1016/j.techfore.2023.122503

MacIsaac, S. (2024). Remittance modality: Unpacking Canadian money transfer mechanism choices. *International Migration Review*, *58*(3), 1250–1276. https://doi.org/10.1177/01979183231181564

Makmur, K. L. (2024). Why only scrutinise formal finance? Money laundering and informal remittance regulations in Indonesia. *Journal of Economic Criminology*, *6*, 100111. https://doi.org/10.1016/j.jeconc.2024.100111

Nan, W., & Li, T. (2024). To gamble or not to gamble? The effect of mobile money on gambling in Kenya. *Economics Letters*, *234*, 111425. https://doi.org/10.1016/j.econlet.2023.111425

Nnabuihe, O. E., Ashindorbe, K., Oni, O., & Kosoko, D. (2024). Exit and voice: Diaspora population and national development in Nigeria. *Cogent Social Sciences*, *10*(1), 2390219. https://doi.org/10.1080/23311886.2024.2390219

Okello, J. A. (2025). Impact of mobile money on remittance costs, flows, and monetary policy in low-income countries: The case of Uganda. *Journal of African Development*, *26*(2), 293–326. https://doi.org/10.5325/jafrideve.26.2.0293

Olatunji, I. A. (2024). A critical assessment of the regulation of cryptocurrency in Nigeria. *South African Mercantile Law Journal*, *36*(3), 457–481. https://doi.org/10.47348/SAMLJ/v36/i3a6

Ozili, P. K. (2023). Determinants of interest in eNaira and financial inclusion information in Nigeria: Role of FinTech, cryptocurrency and central bank digital currency. *Digital Transformation and Society*, *2*(2), 202–214. https://doi.org/10.1108/DTS-08-2022-0040

Ozili, P. K. (2026). De-risking and de-banking: Implications for financial inclusion. *Journal of Alternative Finance*, *3*(3), 245–254. https://doi.org/10.1177/27533743261469582

Pinkow-Läpple, J. I., & Möllers, J. (2025). From social to intangible remittances: Toward a comprehensive framework of remittances. *Comparative Migration Studies*, *13*(1), 70. https://doi.org/10.1186/s40878-025-00484-6

Robins, D. (2025). The medium is the message: The geographies of cryptocurrency remittances to Venezuela. *Transactions of the Institute of British Geographers*, *50*(3), e12734. https://doi.org/10.1111/tran.12734

Sangwan, N., & Tasciotti, L. (2023). Time to remit: The effect of remittances on household consumption and dietary diversity in India. *IZA Journal of Development and Migration*, *14*(1). https://doi.org/10.2478/izajodm-2023-0003

© IIARJournal. All rights reserved.

Seck-Sarr, S. F. (2024). Mobile money in sub-Saharan Africa: Innovation and actors' strategies. *Telematics and Informatics Reports*, *13*, 100114. https://doi.org/10.1016/j.teler.2023.100114

Singler, S., & Babalola, O. (2025). Digital colonialism beyond surveillance capitalism? Coloniality of knowledge in Nigeria's emerging privacy rights legislation and border surveillance practices. *Social & Legal Studies*, *34*(5), 673–694. https://doi.org/10.1177/09646639241287022

Son, M. A., & Yun, J. (2025). Isolated from home, trapped by remittances: How isolation leads to affective and moral pressures on North Korean remittances. *International Migration Review*. Advance online publication. https://doi.org/10.1177/01979183251405861

Sunu, N., & Ramachandran, S. (2026). Remittance transfers, digitalisation and the Ghana–Canada migration corridor. *Migration and Development*. Advance online publication. https://doi.org/10.1177/21632324261457228

Takyi, P. O. (2025). The impact of electronic levy on mobile money transactions: Lessons from Ghana. *Policy Studies*, *46*(2), 271–287. https://doi.org/10.1080/01442872.2024.2303348

Tawodzera, O. (2025). 'Mum added you': Managing transnational aged care arrangements through family WhatsApp groups. *Global Networks*, *25*(1), e12504. https://doi.org/10.1111/glob.12504

Thakur, S. Y., Yadav, P. D., Mankame, Y. S., & Manrai, R. (2025). The impact of anti-money laundering measures on remittance costs: Moderating role of frontier technology. *Humanities and Social Sciences Communications*, *12*(1), 724. https://doi.org/10.1057/s41599-025-05047-9

Yao, B., Shanoyan, A., Schwab, B., & Amanor-Boadu, V. (2023). The role of mobile money in household resilience: Evidence from Kenya. *World Development*, *165*, 106198. https://doi.org/10.1016/j.worlddev.2023.106198

Yeandle, A., & Doyle, D. (2026). Mobile money and the social contract: Experimental evidence from Ghana. *World Development*, *207*, 107497. https://doi.org/10.1016/j.worlddev.2026.107497

© IIARJournal. All rights reserved.