

Market Development and Incentives: What Turns Expansion into Performance?

Background

Mobile money and agent banking networks are now the primary channel through which low- and middle-income countries extend financial services to excluded populations.

Whether expansion translates into services people actually trust and use depends on how the surrounding market is developed and incentivised: how agents are trained and paid, how liquidity is managed, how fees and exemptions are designed, and how regulators respond to a fast-moving industry.

This brief examines the relationship between market development and incentive design and four outcomes: system performance and reliability, service efficiency, customer experience and satisfaction, and trust and perceived safety.

Scope of the Synthesis

This brief synthesises findings from studies examining agent liquidity support, commission and contract design, tax-exemption policy, and account-opening incentives. The synthesis covers studies from Kenya, Ghana, Tanzania, Indonesia, Senegal, Madagascar, Thailand, South Africa, Sri Lanka, Maldives and the Philippines, spanning 2007 to 2025. The evidence includes randomised controlled trials, structural equation modelling, mixed-methods agent and merchant surveys, institutional case histories, and a systematic literature review of 37 studies (2016–2025). Interventions examined are agent liquidity-management training, commission and contract transparency, tax-exemption policy, account-opening fee removal, and agent network scaling strategies.

1. Synthesis of Findings

Table 1. Evidence base for this cell

Source	Design and coverage
Acimovic et al. (2019)	Field experiment with mobile money agents; Tanzania
Bawuah (2024)	Agent survey on commission comprehension and tariff posting; Ghana
Buku & Meredith (2013)	Institutional case history of M-PESA regulation; Kenya
Buri & Reitzug (2019)	Agent-network and deposit-mobilisation analysis; Senegal, Madagascar
Davidson & Leishman (2011)	Operator handbook on agent network incentives; multi-country
Dupas et al. (2016)	Randomised account-opening incentives and household survey; Kenya

Source	Design and coverage
Kulathunga et al. (2016)	Comparative case study of e-money infrastructure; multi-country
Palaon et al. (2020)	Agent survey on satisfaction, continuity and viability; Indonesia
Scarpini et al. (2024)	Merchant survey on e-levy exemption awareness; Ghana
Shahen & Sharaf (2025)	Systematic review of 37 studies, 2016–2025; global

Studies are listed as cited in the synthesis below; designs are as reported by the authors.

1.1 System Performance and Reliability

Reliability depends heavily on liquidity. Tanzanian agents faced a 49% daily stockout probability against a 7% profit-maximising benchmark, because agents rather than operators absorb the cost of holding float (Acimovic et al., 2019). Training paired with a daily liquidity recommendation reduced stockouts by 2.1–3.9 percentage points and lifted rebalancing by 2.5–4.7 points,

although the effects closed only 18–33% of the theoretical gap and concentrated among agents lacking bank access.

Contract clarity matters alongside capital. In Ghana, only 5% of agents could correctly explain their own commission formula and 91% reported payments below expectation, undermining continuity of service (Bawuah, 2024). On the supply side, bank-based superagent channels cut float replenishment from multi-day delays to same-day turnaround, easing scale-up in Kenya (Davidson & Leishman, 2011).

Taken together, these findings locate reliability in the incentive structure rather than in the technology. Where the party who bears the cost of holding float is not the party who captures the value of a completed transaction, stockouts persist even when agents know the optimal rebalancing rule; and where agents cannot verify what they are owed, the commercial signal that should sustain service quality is absent.

The evidence is also asymmetric in strength. The liquidity finding rests on a field experiment with a measured counterfactual, while the commission finding rests on a single-country agent survey and the superagent finding on operator documentation. Reliability is therefore best evidenced where it has been experimentally manipulated, and weakest where it depends on provider practice reported by providers themselves.

1.2 Service Efficiency

Fiscal and infrastructure design shape efficiency more than proximity alone. Exemption awareness was the strongest predictor (+18 percentage points) of Ghanaian merchant mobile-money adoption, though cash still dominated regardless, and registration was bottlenecked by identity-card coverage of only about half the population (Santoro et al., 2024).

Unit costs favour agents decisively: roughly US\$250,000 per bank branch against about US\$2,000 per point-of-sale agent, while Thailand’s interoperable ATM network cut rural travel time to a payment point from approximately 35 to 7 minutes (Kulathunga et al., 2016). Agent adoption raised transaction frequency by 32–59% in Senegal and Madagascar, but a 2016 Senegalese deposit fee caused an immediate and sustained fall in volume (Buri & Reitzug, 2019). In Kenya, fee removal raised account take-up to 62%, yet only about 18% of the offered population made even two deposits (Dupas et al., 2016).

The pattern across these studies is that efficiency gains accrue where a specific friction is removed and communicated — travel time, transaction cost, tax liability — and dissipate where an incentive lowers a nominal barrier without addressing the reason the service is not used. Registration is consequently a weak proxy for efficiency; completed transactions per user is a stronger one.

The cost comparison also reframes what efficiency means in this cell. If an agent point costs roughly one per cent of a branch, the binding question is not whether to use agents but how many transactions each point must carry to remain viable — which returns the analysis to liquidity, commissions and demand rather than to network size.

1.3 Customer Experience and Satisfaction

Stated commitments and observed conduct diverge sharply at the counter. In Ghana, 75% of agents endorsed tariff-posting in principle, yet only 9% actually posted tariffs and 35% admitted overcharging (Bawuah, 2024).

Exposure does not settle scepticism on its own. In Kenya, active bank users were more concerned about reliability (43%) than

non-adopters, suggesting that use hardened rather than resolved doubt, and only 13% of households could draw on savings for a modest emergency (Dupas et al., 2016). Indonesian agents cited “helping the community” (28%) almost as often as profit (30%) as their motivation to continue, and satisfaction fell with network and system errors (Palaon et al., 2020).

Agent motivation is therefore mixed rather than purely commercial, which matters for incentive design: schemes that assume a single financial objective may under-use the community and reputational motives agents themselves report, while system errors that agents cannot control erode satisfaction on both sides of the counter at once.

Customer experience in this cell is consequently a joint product of price transparency, system uptime and agent conduct, none of which is captured by satisfaction scores alone. The Ghanaian gap between endorsing tariff posting and actually posting tariffs is the clearest illustration: stated norms and observed practice diverged by 66 percentage points among the same respondents.

1.4 Trust and Perceived Safety

Regulatory posture and institutional history both register in trust outcomes. Kenya’s Central Bank issued M-PESA a “letter of no objection” ahead of formal legislation, a judgement later vindicated by a 2008 audit (Buku & Meredith, 2013).

Awareness and reputation remain binding constraints elsewhere: only 60% of Kenyan household heads had heard of their local village bank, and just 49% of those aware expressed trust, with the branch affected by an embezzlement scandal showing measurably worse outcomes (Dupas et al., 2016). Across the wider literature, 68% of 37 reviewed studies report a positive digital-payment and inclusion relationship, but most of that evidence remains correlational rather than causal (Shahen & Sharaf, 2025).

Two implications follow. First, trust is institution-specific rather than sector-wide: a single failure attached to one provider depressed outcomes locally without preventing adoption elsewhere. Second, because the reviewed literature measures adoption far more often than perceived safety, the direction of evidence on trust rests largely on cross-sectional association and should be read as indicative.

What the evidence does establish is that trust is earned through verifiable arrangements rather than assurances: pooled trust accounts held at a regulated bank, an independent audit, and published tariffs are the mechanisms that appear in the positive cases, while opacity about fees, commissions and record-keeping appears in the negative ones.

Table 2. Direction of evidence in this cell

Pathway	Direction of evidence
Liquidity training with an actionable recommendation	Positive (experimental)
Tax exemptions paired with awareness	Positive (survey)
Interoperable shared infrastructure	Positive (descriptive)
Fee introduction without communication	Negative
Entry-cost removal alone	No effect on active use

Pathway	Direction of evidence
Commission transparency and agent pay	Negative on current practice

Directions summarise the included studies only; they are not pooled effect sizes.

2. Cross-Cutting Trends and Insights

Key cross-cutting trends and insights include:

- Information gaps outweigh access gaps: awareness, not proximity or cost, is the stronger predictor of adoption and reliability (Dupas et al., 2016; Santoro et al., 2024).
- Liquidity is the binding constraint on reliability: agents bear float costs that operators do not share, driving stockout rates far above the optimal benchmark (Acimovic et al., 2019; Bawuah, 2024).
- Contract opacity erodes trust on both sides of the counter: agents unable to explain their own pay were less likely to post tariffs honestly (Bawuah, 2024).
- Exposure does not automatically resolve scepticism: active users reported higher reliability concerns than non-adopters (Dupas et al., 2016).
- Regulatory tolerance for early ambiguity can enable scale: Kenya allowed launch ahead of legislation and the decision was later validated by audit (Buku & Meredith, 2013).
- Agent economics sits upstream of every other outcome in this cell: float, commissions and transaction demand determine whether a service point is reliable, efficient and trusted at all (Acimovic et al., 2019; Palaon et al., 2020).

3. What Works

- Training paired with an actionable recommendation: information alone did not shift behaviour, while training plus a daily recommendation reduced stockouts (Acimovic et al., 2019).
- Bank-based superagent liquidity channels: same-day float replenishment relieved multi-day delays during scale-up (Davidson & Leishman, 2011; Kulathunga et al., 2016).
- Tax exemptions paired with awareness efforts: exemption knowledge was the strongest single predictor of merchant adoption (Santoro et al., 2024).
- Interoperable, shared infrastructure: a national ATM network cut rural travel time to a payment point substantially (Kulathunga et al., 2016).
- Regulatory tolerance during early rollout: pooled trust accounts at a regulated bank converted later scrutiny into trust-building (Buku & Meredith, 2013).

4. What Doesn't Work

- Fee introduction without communication: a Senegalese deposit fee caused an immediate and durable fall in transaction volume (Buri & Reitzug, 2019).
- Awareness campaigns without contractual clarity: broader policy awareness did not translate into commission comprehension (Bawuah, 2024).

- Removing entry costs alone: free vouchers raised take-up to 62%, but only about 18% used the account actively (Dupas et al., 2016).
- Agent recruitment that outpaces demand: oversaturation relative to transaction volume triggered rapid defection (Davidson & Leishman, 2011).

5. Challenges

- Liquidity management: agents absorb float costs, leaving stockouts far above the optimal rate (Acimovic et al., 2019).
- Commission and contract opacity: most Ghanaian agents could not explain their own pay (Bawuah, 2024).
- Identity infrastructure gaps: roughly half of Ghana's population lacked the identity card needed for exemption-linked registration (Santoro et al., 2024).
- Historical institutional scandal: a single embezzlement event worsened trust even among continuing customers (Dupas et al., 2016).
- Measurement asymmetry: registration and account counts are collected routinely while active use, tariff compliance and agent profitability are not, so incentives are often judged on the indicator that is easiest to obtain.
- Weak causal evidence base: most of the literature remains descriptive or survey-based (Shahen & Sharaf, 2025).
- Contextual concentration: the strongest evidence comes from Kenya, Ghana and Tanzania, so external validity to South Asian and South-East Asian markets is untested.

6. Areas for Further Research

- Incentive-alignment mechanisms for liquidity: addressing capital-cost asymmetry directly rather than only through information (Acimovic et al., 2019).
- Replication beyond narrow samples: commission-comprehension findings need testing across broader agent populations (Bawuah, 2024).
- Longer time horizons for trust formation: whether extended exposure narrows documented trust gaps remains untested (Dupas et al., 2016).
- Rigorous econometric and macro-level evidence: moving beyond correlational, survey-based findings (Shahen & Sharaf, 2025).
- Duration and withdrawal effects: whether liquidity support, exemptions or fee waivers hold their gains once the subsidy ends is not addressed by any included study.
- Disaggregated incentive effects: whether the same incentive performs differently for female agents, rural agents and small merchants, which the included studies do not report.

7. Conclusion

Market development and incentive design shape inclusion outcomes well beyond simple access. Reliability, efficiency, experience and trust are not automatic by-products of expanding networks; each depends on closing a specific comprehension or capital gap for the actor who bears its cost — the agent facing a stockout, the merchant unaware of a tax exemption, the household unable to parse a fee schedule.

For policymakers, the implication is to pair information with concrete support, address agents' liquidity burden directly, communicate fee changes transparently, and treat early regulatory flexibility as an asset rather than a risk to be eliminated. On the evidence side, the weakest link is causal: incentive design is widely described but rarely evaluated against measured reliability, efficiency or trust outcomes.

The practical test for any market-development measure in this cell is therefore whether it can be traced to a named actor, a named cost and an observable transaction record. Measures that satisfy those three conditions — liquidity support with a delivery mechanism, exemptions with an awareness channel, fee changes with prior communication — are the ones the evidence supports; measures judged by counts of agents, accounts or registrations are not.

About this Evidence Brief

This evidence brief is a cell-wise summary of studies examining market development and incentives against system performance and reliability, service efficiency, customer experience and satisfaction, and trust and perceived safety in digital financial services, from ICED's Evidence and Gap Map of the Retail Finance Distribution Initiative.

For the full map, visit www.iced-eval.org/evidence-and-gap-maps

References

- Acimovic, J., Parker, C., Drake, D., & Balasubramanian, K. (2019). Show or tell? Improving agent decision making in a Tanzanian mobile money field experiment. Smeal College of Business, Pennsylvania State University.
- Bawuah, I. (2024). When agents do not understand their commissions: Why contract clarity matters in Ghana's mobile money market [Working paper].
- Buku, M. W., & Meredith, M. W. (2013). Safaricom and M-PESA in Kenya: Financial inclusion and financial integrity. *Washington Journal of Law, Technology & Arts*, 8(3), 375–400.
- Buri, S., & Reitzug, F. (2019). Do agent networks help to boost savings? Effects on institutional deposit mobilization and customer saving behaviour. International Finance Corporation.
- Davidson, N., & Leishman, P. (2011). Building, incentivising and managing a network of mobile money agents: A handbook for mobile network operators. GSMA.
- Dupas, P., Green, S., Keats, A., & Robinson, J. (2016). Challenges in banking the rural poor: Evidence from Kenya's Western Province. In S. Edwards, S. Johnson, & D. N. Weil (Eds.), *African successes, volume III: Modernization and development* (pp. 63–101). University of Chicago Press.
- Kulathunga, A., et al. (2016). Bringing e-money to the poor: Successes, failures, and future potential. World Bank.
- Palaon, H., Wiryono, S. K., & Faturohman, T. (2020). Branchless banking agents: Business satisfaction, continuity, and viability. *Cogent Business & Management*, 7(1), Article 1823585.
- Scarpini, C., Santoro, F., Abounabhan, M., & Diouf, A. (2024). The E-levy and merchant payment exemption in Ghana. The Institute of Development Studies and Partner Organisations.
- Shahen, A. M., & Sharaf, M. F. (2025). The role of digital payment technologies in promoting financial inclusion: A systematic literature review. *FinTech*, 4(4), Article 59.