

Driving Scale and Density of Agent Networks in Perú

Different agent networks offer payments and banking services in Perú. Their size and coverage varies, but different design choices have influenced their ability to operate viably in more remote areas of the country. These choices involve the range of services offered, the complexity of agent operations, and the overall network operating model. This Brief describes the relationship among these factors and their impact on the potential for rural outreach. It also extracts high-level insights for providers and regulators in markets beyond Perú.

Agent networks in Perú

Agent networks allow financial service providers to leverage existing retail infrastructure to expand rapidly into areas where the traditional branch model would not be viable or would be expensive to build. For many low-income customers, agents bring access to a potentially rich portfolio of financial services. Beyond banking, mobile networks also use agents to sell airtime and offer other payments services. In 2005 Perú enacted agent banking rules, and since then a number of players and models have emerged.¹

Based on the concept of agent as an access point for cash-in/cash-out services (be it banking or payments in general), CGAP conducted a study of five agent networks comprising more than 26,000 agents and 24 million monthly transactions to identify key success factors in reaching poor and rural areas. Taking the network as the unit of analysis, the study looks at how design decisions at the network level impact the overall capacity to reach poor and sparsely populated areas.

Aspects of network design that impact reach and density

The study identified three network design choices where agent managers in Perú used different approaches. Decisions around one aspect imply tradeoffs across the others. These three nonmutually exclusive choices are

1. Aggregation of services, especially those involving transactions that are cash-based (*cashy*)
2. Simplicity of transactions
3. Lightweight network operating model

Aggregation of services drives agent revenue

Aggregation is a predominant strategy across all networks analyzed. Agent network managers have strong incentives to aggregate multiple service providers in their platforms at marginal costs since that expands the potential transactional pool they can tap into, enabling more agents to reach their breakeven point (BEP). The typical portfolio of services aggregated through the network includes deposits and withdrawals for banks; cash-in and -out for mobile wallets; bill payments; airtime sales; and domestic remittances.

Sometimes the need for competitive differentiation drives agent networks to offer certain services that are exclusive to their network. For example, a bank-centric network typically is exclusive to one bank and aggregates services such as bill payments and airtime for other providers.

Cashy over-the-counter transactions represent 40 percent to 90 percent of overall network revenue. Although these transactions may have a lower financial inclusion potential (compared to account-based transactions), the revenue they generate is

¹ <https://intranet1.sbs.gob.pe/estadistica/financiera/2013/Junio/CIIF-0001-jn2013.PDF>

essential to sustain agent viability and ultimately network density and scale.

Simplicity of transactions means many more and smaller shops can become suitable agents

Transactions that involve more elaborate procedures and/or a more complex infrastructure, set a higher bar for the kind of shops that can suitably act as agents (i.e., shops that can reliably operate front-end technology and follow procedures). Also, more complex transactions (such as those involving a long series of steps, printing paper receipts, or recording information by hand) require additional time and sometimes infrastructure to accommodate the agent service model.

There are important tradeoffs to be made. Transaction complexity reduces the market of potential agents and increases operating cost, driving up the number of transactions needed to reach BEP. In contrast, simpler transactions (with lower BEP) enable higher density, but lead to more limited financial inclusion potential.

Lightweight operating model means a lower BEP for agents

Some aspects of a network's operating model, such as liquidity management duties, affect the overall operational cost of the network. A higher network operating cost increases all agents' BEP, since more transactions will be required for network viability. Networks that achieve an overall low-cost structure are able to recruit agents handling low transaction

volumes, which are more abundant and can be viable in more sparsely populated areas.

The network cost structure is determined chiefly by how each network's business model manages five core operation components: working capital, front-end hardware and connectivity, liquidity management, labor and space, and fraud liability.

Network managers improve profits by achieving efficiencies in these components. One way in which they can do this is by discharging some of the key cost components downstream (to the agent) or upstream (to the service providers), either of which may have synergies with their core business to absorb cost more efficiently. In Perú, we observed that networks with an overall lower cost structure achieve higher agent density (number of viable agents per locality inhabitant), enabling in turn higher proximity to customers both in rural and urban settings. Business models studied range from 150 to 3,500 monthly transactions per agent for BEP.

Four network models

In our study in Perú, providers made different design decisions along the aspects described above, leading to four different network models:

- Bank-Centric, a network exclusive to one bank with high aggregation of other services.
- MNO-Centric, a network that is exclusive to an MNO, with low service aggregation.
- Transactional-Shop, a payments business with high aggregation of services, where transactional revenue is the sole source of income for the agent.

Table 1. Examples of transactions with different degrees of operational complexity

Complex	Balanced	Simple
<ul style="list-style-type: none"> • Identification of customers • Transactions involving large amounts of money • Printing transaction receipts • Requiring agent's tax ID 	<ul style="list-style-type: none"> • Transactions similar to selling goods: <ul style="list-style-type: none"> – Customer identification through personal identification numbers – Straightforward cash-in (confirmation direct to customer via SMS) – No cash-out transactions 	<ul style="list-style-type: none"> • Only cash-based transactions

- Provider-Agnostic, a network with high aggregation of services and a lightweight operating model.

The Provider-Agnostic model had two variations, depending on the network genesis. The suffix “-B” refers to a case where the network focused originally on banking or bill payment transactions; the “-M” suffix refers to a case where the initial core business was focused on mobile transactions.

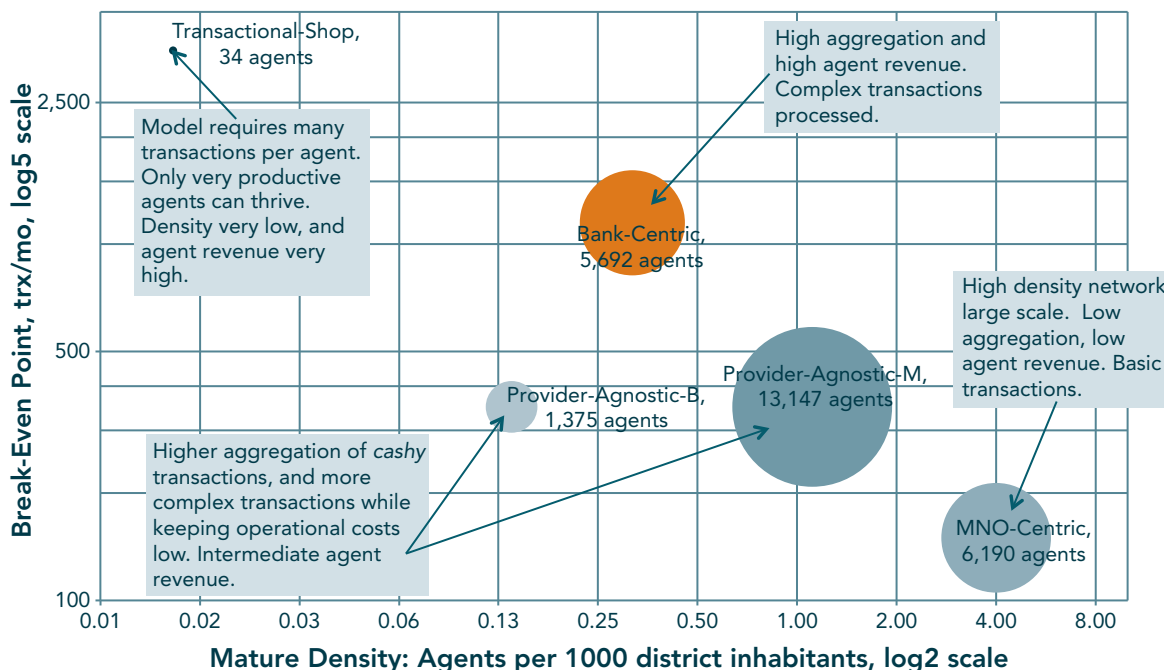
Figure 1 shows how agent BEP is correlated to network density. Networks with lower agent BEP (e.g., the MNO-Centric model) are able to operate more points in a given district (higher density of points) and will offer a larger number of access points to customers. The fact that this network has a low level of service aggregation limits its scale and its potential for financial inclusion. Models at the center of the chart are more relevant for financial inclusion. They strike a good balance between a simple and lightweight operational model and a highly aggregated service portfolio. While they bring a higher aggregation of services that are relevant for poor people (banking services and cash-based transactions), this comes at the cost of higher agent BEP and reduced network density. This may well be the sweet spot for financial inclusion in the Peruvian context.

Looking forward, as the market evolves, more providers are likely to offer electronic services, and the demand for a broader range of transactions is likely to increase. As a result, it would be expected that agent networks mature and competition increases. This would push providers to more actively explore the links and tradeoffs across the three drivers described here. So far, agent network managers in Perú seem to be converging in their attempt to reach this sweet spot, where the synergies across the three key aspects of network operations are maximized. The challenge they face is how to increase service portfolio and transactional volume while keeping operational costs low to maximize profits. Technology-based innovation, which enabled out-of-branch banking transactions in the first place, is a central player in this stage of market evolution. It would be expected that geographical information and business intelligence can help managers better predict liquidity needs and improve user experience.

Insights on how to improve reach and density

Some broader insights can be derived from the evidence found in Perú that might be useful for the financial inclusion debate in other parts of the world.

Figure 1. Model Mapping: Network Density, Scale, and Simplicity



- **Regulatory compliance costs can reduce agent network density.** Some regulations define requirements that impact the cost of operating a network. Rules that determine the kind of establishment that can act as an agent (e.g., having a tax ID); requirements that lead to lengthy transactions (such as an agent needing to capture detailed information in a system); and/or those involving additional infrastructure at the point of service (e.g., printing a receipt for every transaction) increase an agent's operating cost and thus the number of transactions needed to make an agent viable. This reduces the network's ability to operate agents in areas with a more dispersed population. A balanced regulatory approach can help expand access in rural areas.
- **Tiered agent networks.** Defining different service levels across tiers within a network can help operators address specific local needs and can help regulators identify areas where differentiated requirements may make agents viable. For example, a network operator can limit a certain group of agents to perform only transactions of less than US\$20 each and certain regulatory requirements (e.g., printing a receipt for every transaction) could be made optional for this kind of agents. The result could bring direct costs down and facilitate viability of agents in rural areas.
- **Cashy transactions increase viability of rural agents.** *Cashy* transactions enable rural agents to increase the potential transactional pool in areas with low traffic. Aggregating both account-based and *cashy* transactions is especially relevant for increasing access points in rural areas.
- **Agent exclusivity can have a negative impact on potential for growth.** Agent networks that establish

exclusive relationships with service providers sometimes achieve a powerful competitive differentiator; however, exclusivity narrows down the number of transactions that can be offered and reduces the number of access points that can viably operate. This ultimately lowers accessibility and value to customers. Conversely, shared agents boost these qualities and thus potential for growth.

- **Shared agents can bring effective interoperability at the agent level.** Third-party agent networks that aggregate similar mobile money services offer an alternative solution to noninteroperable services. By establishing accounts with multiple providers, they can offer "interoperable" transfers acting as recipient on one platform and as sender on another one. While effectively interoperable, it promotes transactions "over the counter," which are less efficient for both customers and providers.

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