The Agent in a Transformational M-Banking Ecosystem – Interface or Intermediary?

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ABSTRACT
The bank-led branchless banking model in India was born out of a national financial inclusion mandate that seeks to connect unbanked populations to formal financial services. This is implemented through a transformational, hybrid infrastructure that extends outreach via low-scale banking structures. These low-scale banking structures take banking services out of the brick-and-mortar bank branches and into the hands of non-bank agents (or business correspondents) that can now drive uptake in unserved regions on the branchless banking platform. This note demonstrates the results of a study that looked at Eko, one of the prominent mobile banking business correspondents in India, in its collaboration with the largest public sector bank in the country. In particular, this note will focus on the role of their retail agent network and how certain informal, frequently unstipulated, practices on their part may help in acquiring and retaining customers on the platform. In this way, the retail agent network may indeed help in sustaining the transformational mobile banking ecosystem.

Categories and Subject Descriptors
K4.4 [Computers and Society]: Electronic Commerce – *payment schemes*

Keywords
Mobile Banking, Financial Inclusion, Agents

1 INTRODUCTION

1.1 Mobile Banking in the Developing World
Certain regions, typically rural, and certain populations, typically low-income, frequently find themselves excluded from the formal financial landscape. Financial institutions may often find it expensive to maintain physical bank branches in areas where footfalls might be limited and transactions are of small value. Therefore, banking services are often taken out of the brick-and-mortar, physical bank branches and into different points of service (POS) terminals. These terminals facilitate branchless banking and connect unserved areas and unbanked populations to formal financial services. These POS terminals could be ATMs, for instance, or the post office, or the local neighborhood shop that sells odds and ends. When the mobile backbone is utilized as the technology platform that uniquely identifies customers and completes all transactions electronically, then branchless banking is now known as mobile banking [1].

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While examining mobile banking, a critical conceptual resource is Porteous'[2] division of *additive* and *transformational* mobile banking models, which appreciates the fundamental differences in implementation in the developed and developing world. While in additive mobile banking models the mobile phone is one of multiple ways to access your bank account, in transformational mobile banking models the mobile phone serves as a unique channel to connect unserved populations to financial services. Mobile banking as an additive model is largely prevalent in the developed world where users may now be able to access their bank accounts on their mobile phones, through the bank's mobile banking application. Additive mobile banking platforms are certainly in use in developing countries as well, but they are primarily confined to urban areas where the more affluent population may be able to afford mobile phones that can connect to the internet, and therefore to the mobile banking application. In keeping with the larger technology and development agenda, this note will be concerned with mobile banking as a transformational channel in the developing world.

1.2 Bank-led Mobile Banking in India
More specifically, in a transformational branchless banking model larger financial institutions may join forces with local organizations and leverage their infrastructure on the ground to extend services to unbanked populations in a bid to fulfill financial inclusion objectives [3]. This can help financial institutions manage risks at the larger and more strictly regulated provider end, expand outreach within unserved regions through the local resources, and thereby achieve financial inclusion targets. The bank-led branchless banking model in India, known as the Business Correspondent model, serves as an exemplar of such a model. Essentially, the Reserve Bank of India enables certain entities such as NGOs, self-help groups, civil society organizations, and microfinance institutions to act as an interface between a bank and customers in unserved regions, thereby allowing them to conduct and complete financial transactions on the bank's behalf. Technology Service Providers that furnish both, the technology platform over which branchless transactions may be completed, as well as the agent network to enable these transactions, have proven to be one of the more successful type of business correspondents [4].

Eko is a prominent Technology Service Provider that functions as a business correspondent for the largest public-sector bank in India (henceforth known as Indian Bank), and is one of the few that uses mobile technology. Eko started out by connecting users to Indian Bank's rudimentary, no-frills savings account in 2009. A year later, Eko launched Indian Bank's remittance facility. Until recently, telecom operators were blocked from providing branchless banking services in India. In the meantime, Eko was able to reproduce the mobile technology and the retail agent network, that telecom operators typically furnish in telecom-led mobile banking environments, to facilitate branchless banking for its partner banks. In its role as a business correspondent, Eko manages the technology platform entirely, identifies, trains, and supervises the agent network, conducts all marketing exercises, and devises the customer strategies [5]. This note will look at the agent network that is identified and sustained by Eko in different cities across India.

1.3 The Agent Network

The retail agent network constitutes a critical part of the mobile banking ecosystem and providers must develop a reasonable set of selection criteria that can achieve scale yet exclude potentially fraudulent agents. Mas & Siedek [6] identify general criteria categories that service providers may take into account before selecting agents. Most importantly, perhaps, the agents need to be trusted by both, the clients as well as the service provider(s). This trust typically stems from the historical trajectory and relative success of their main business, their ability to manage cash operations, their personal reputation, and the safety of the location where their shop is located. Medhi et al [7] find that mobile banking agents in India, Kenya, South Africa and the Philippines often provide services that go beyond the interfacing capabilities of cash-in/cash-out and the completion of transactions. They contend that the degree of mediation provided by the retail agents determines the adoption and uptake of mobile banking services, especially among less-literate populations. Troubleshooting was one function that was performed by agents despite, and perhaps because of, the provision of text-heavy instruction manuals to users. More interestingly, users sometimes expected the agents to complete transactions for them, parting with, if even temporarily, their personal mobile device and details. Finally, the paper finds that low levels of literacy (often confined by numerical literacy), the unavailability of options in local languages, a lack of familiarity with banking jargon, and application complexity all contributed to the expectation of agent-mediated transaction fulfillment, thereby rendering them as indispensable actors in the mobile banking network [7].

As far as the trust relations between retail agents and customers is concerned, a study by Morawczynski & Miscione [8] found that this interpersonal trust was weak. The study presented specific examples that revealed that any problem with the remittance service (incomplete transactions, failed SMS receipts, lack of liquidity) led customers to conclude that the agents had stolen their money. On the other hand, Mas and Morawczynski [9] reason that customers may be unable to determine if an agent's lack of liquidity is a specific constraint on the agent's end or part of a larger technical breakdown on the provider's end. Indeed, they claim that helping agents maintain liquidity is critical in preserving consumer trust in the mobile money system as a whole. Lyman et al [10] corroborate this by stating that any liquidity deficit on the agent's end can cause "reputational risk" to the financial service provider.

On their part, Eko tends to scope out agents based on their ownership of a business space, the success of their primary business, the longevity of their business, and their reputation within their immediate communities[1]. However, as an Eko agent in Patna pointed out, Eko typically does not take into account the liquidity of agents while selecting them, especially in sites where their savings accounts are more popular and customers may require more withdrawal servicing (such as Patna itself). The richer, more liquid agents were encapsulated as "big parties" by the Patna agent, implicating their ability to cash-in/cash-out without any impediment. As we will see later on, agent-customer relationships can help mitigate the liquidity challenge, thereby preventing any reputational risk to the agent or to Eko directly.

2 METHOD

Active fieldwork was conducted for 45 days spread over two and a half months between June and August 2012 in the cities of New Delhi (in the state of Delhi), Patna (in the state of Bihar), and Lucknow (in the state of Uttar Pradesh).We utilized a multipronged data collection strategy, so as to include the views of multiple actors in the mobile banking ecosystem and to focus on their diverse practices. More specifically, we conducted 53 interviews in total, in Hindi and English, which included 30 semi-structured interviews with Eko customers at various points of service, 12 in-depth interviews with CSP agents, 5 in-depth interviews with Eko representatives, and 6 in-depth interviews with Bank/MFI representatives. We also collected observational data which focused on the functioning of agent outlets and agent-customer interactions. The *in-situ* interviews with the customers were conducted around active transactions that inherently prohibited any audio-recording attempts. Instead these interviews were transcribed by hand, as and when they were happening, by a research assistant, and were read together with the field notes (any direct customer quotes were only used in this paper when we had been able to write it down verbatim). Audio recordings of in-depth interviews were later transcribed, and subsequently, all transcripts, field-notes, and observational data were subjected to thematic coding. The coding process was based primarily on a set of deductive codes derived from our research questions. In addition, we ran iterations of inductive coding during our analysis to include emergent themes from our data corpus.

We provide the details of our agent and customer respondents in the Tables 1 and 2 to give a sense of the distribution of our data collection. Due to the low volume of active business in Patna, a lower number of customer and agent interviews were recorded. New Delhi has the largest share of both agent and customer respondents in our dataset, which is in accordance with it being the most profitable and active center for Eko's business. Lucknow also has a fair share of agent respondents, as we wanted to draw out the initial rollout of the agent network. Finally, only a few customers were comfortable with sharing their income specifics, as evident in Table 1.

Table 1. Customer Respondent Demographics

City	Total Cases	Avg. Revenue per month (cases)	Avg. Trans-action per day (cases)	Main Business	Profit
Patna	5	1250 (4)	4.1 (4)	Medical Shop, Jewelry Shop, Grocery Store, Financial Products, Travel Agent	Low/ Loss
Delhi	3	9000 (2)	53.3 (3)	Taxi Business, Computer/Phone products, Tele-Communications	Break Even/ Profit
Lucknow	4	6250 (4)	35 (4)	Stationary shop, Eko-Standalone, Grocery Store, Tile shop	Break Even/ Profit

[1] This is an exercise in weeding out any potentially unscrupulous agents, although fraud remains a very real, if somewhat intermittent, issue and is dealt with directly by Eko representatives at their discretion.

Table 2. Agent Respondent Demographics

City	Male	Female	Income Per Month (0-5000 INR)	(5000-10,000 INR)	(10,000-25,000 INR)
Delhi	17	2	2	7	4
Patna	4	1	0	0	1
Lucknow	5	1	1	1	4
Total	26	4	3	8	9
Average Age	33.94	37.7			

3 THE AGENT NETWORK: INTERFACE OR INTERMEDIARY?

> *"One of the key things which Eko dealt with from the very beginning was we realized that P2P[2] is not going to work, at least not right now…it's now going to be five years. And the thing which we looked at was very similar to what happened in the PCO[3] case…I do remember that when people used to go to domestic PCO shops, they would say please dial for me. They would never want to dial the number. Even, even people would not dial it themselves, although they could. The idea was that if something goes wrong it's his responsibility, if you dial the wrong number, I don't have to pay."*
>
> *- Head of Operations, Eko*

This quote reveals how "assisted banking" may still be necessary when consumers are expected to use an atypical banking platform, if only to mitigate any indefinite risks. As we observed over time, this assistance on the agents' part was not merely restricted to the actual transactions. For instance, it was not uncommon for customers to directly call the agents on their personal mobile numbers to confirm if they would be in or had enough cash at hand to service a withdrawal. This was especially common in Patna, where Eko's savings services were more poplar, and thus customer withdrawals were more frequent. Interestingly enough, Eko does provide a facility for customers to register for their own Eko accounts to enable P2P transactions, thus rendering the agent as a cash-in/cash-out point. However, we did not find a single customer across the sites who had heard about this option, let alone used it, even though it would halve the service fees that they ordinarily paid to the agents. On its part, Eko did not make any effort to advertise it either. The general consensus was that customers would in fact be more comfortable having the agents conduct the transactions.

Essentially, in the given ecosystem, users may trust Indian Bank, Eko, the agent, or a combination of the three actors. In general, the Indian Bank is a well-respected bank that has extensive reach both, among low-income populations as well as rural parts of the country. In Delhi most of the customers we met were outsourced to Eko by their respective Indian Bank branches. This direct referral by the bank persuaded the customers to remit over Eko's platform, especially, as an agent pointed out, when the customers have little or no understanding about how mobile money works. On their part, agents across all the sites made sure to prominently display Indian Bank's logos, both within and outside their outlets, to signal an affiliation that may encourage and attract new customers, especially to those who were not directly referred by the bank. Still, customers harbored similar expectations from an agent point as they would from a bank. In our observations we saw that agents would try to accommodate these in order to conciliate any skeptical customers. For instance, one agent in Delhi wrote down the name of the account holder, account number, the amount remitted, the fee charged, the transaction ID number, and the agent's direct number in case the transaction failed to complete, on a piece of paper with no official logos or stamps. This served as a paper receipt, in addition to the formal SMS receipts that customers received on their mobile phones. The agent realized that customers trusted a paper receipt (even if it was just an improvised paper receipt) that the agent handed over to the customer in person, over an SMS that seemingly originated from the provider and could get delayed or remain undelivered due to network problems, a full inbox, or other logistical snags.

This lack of official paper receipts was felt especially in Lucknow where the remittance product had been launched only recently and Eko was in the customer acquisition phase. One agent expected Eko to supply official receipts as he felt this would reassure new customers. Interestingly, as a makeshift solution, all the four agents we spoke with in Lucknow were "borrowing" official deposit slips from the Indian Bank branches. The agents had their customers fill these deposit slips out, which the agent would then sign and stamp with his seal, in effect mimicking a very familiar banking process that may have bolstered their customers' confidence. The signed and stamped deposit slip had no real value as far as Indian Bank was directly concerned (they were likely not even aware of this practice); its actual legitimacy rested upon recreating the formal culture of a bank, recording the completion of a transaction on an endorsed receipt of sorts, and thereby mitigating any reservations on the part of new customers who were handing money over to an unfamiliar person outside of a bank's premises.

Essentially, the agent network forms the interface between the customer and the bank. More often this boundary is tenuous, as agents become the face of the financial service and are held directly accountable by their customers. For instance, an agent told us that during a temporary breakdown in the savings service in Patna, the affected customers blamed the agent, without realizing that this was a lapse at the Eko-Indian Bank backend. Moreover, as the previous examples demonstrate, agents often go above and beyond their prescribed obligations, acting more as intermediaries in facilitating the seamless provision of services. An agent in Lucknow encapsulated the responsibilities of a typical Eko agent, while lamenting the inadequate commissions,

> *"See, a CSP assumes complete responsibility. He takes responsibility for all the cash that is deposited, he takes the responsibility for forged notes, he takes the responsibility for the customers, and he takes the responsibility for the money to reach its account holder. Almost everywhere, the agent's role is central. Yet the commission structure is nothing, and that is why it is useless. Commissions should be good so that there is coverage, in case there is any loss."*

This quote reveals the breadth of responsibilities that an agent must undertake, and that frequently exceeds the job description on paper. Understandably, as many agents across the sites pointed out, these responsibilities require attention that takes time away from their primary business. Yet, as a dedicated Eko agent in Lucknow realized, the commission structures are woefully inadequate to facilitate an exclusive investment in this business. We met one agent in Delhi who owned a tourist cab company and had hired a dedicated resource to handle all of Eko's transactions. The agent earned between INR 10-11,000 per month from Eko's commissions, but paid INR 7,000 per month to the resource. This severely diminished his profits

[2] Peerf-to-peer

[3] Public Call Office

from the service, yet he just could not find the time to manage Eko's transactions and responsibilities on his own. Another agent from Delhi, who had a shop that sold various odds and ends, confirmed that Eko's commissions were certainly disproportionate to the amount of work it required, especially when it was expected to be their "secondary job" in addition to their main business.

Still, having an active, functional, and reliable agent network is crucial in attracting new customers and servicing existing ones successfully. For this reason, Eko selects agents who are typically longstanding members of their immediate communities and run a thriving business. We met many customers in Delhi and Patna who knew and trusted theirs agents implicitly, irrespective of whether or not they had even heard of Indian Bank or Eko previously. One particular agent in Delhi was especially well-known in his shop's immediate neighborhood. Many of his customers claimed to have known him for years. Indeed, they held him in such high regard that a temporary downtime in the network failed to deter them. Instead of returning at a later time which might be inconvenient, these customers left their money with the agent so that he could complete the transaction once the network was up and running again. We observed that no receipt or other marker was provided. Customers would wait for the SMS receipt to confirm that the transaction was completed. If they did not receive this, they made a quick call to the agent to clarify its status. In particular, we met a user who had known the agent for 15 years, and who was unaware of the service charges despite remitting up to INR 5000 to his sister-in-law at least a couple of times every month. He said that he completely trusted the agent and paid whatever charges he asked of him without thinking twice. It is worthwhile to understand that when the service charges are a flat rate of INR 25 (for amounts up to INR 1250) and INR 100 (for amounts above INR 5000), a one-time acquaintance with the fees suffices. However, for amounts between INR 1250 and 5000, that a substantial proportion of the observed users (including the aforementioned user) were remitting, a 2% fee is levied that clearly varies with the amount. We observed that this agent in particular was stating the total amount to be paid, which included the amount to be remitted as well as the service charges, to all his customers without breaking it down. This was in stark contrast to the other agent in Delhi who broke the amount down in the provisional paper receipt that he handed over to all his customers, essentially implicating the different types of agent-customer relationships within the same mobile banking ecosystem.

4 DISCUSSION & CONCLUSION

The relationships, both existing as well as new, between the agents and their customers are certainly important in driving the uptake of savings and remittance services, something that the literature notes as well. In general, we found that agents were engaging in different informal practices in order to cultivate a more accessible environment in their shops. The provision of paper receipts, both ad-hoc as well as actual "borrowed" ones, was a common practice that indicates that the unfamiliar, intangible SMS receipts may not be the best way to confirm receipt, at least not on their own, and certainly not for illiterate, semi-literate, or non-English speaking users. Moreover, engaging in the routine "signing and stamping" process on bank slips was expected to generate a formal banking atmosphere within a small, neighborhood shop, something that the agents believed would attract and reassure new customers. This practice, that requires agents to physically go to the closest Indian Bank branch and retrieve their deposit slips, remains a poignant illustration of agents going above and beyond their prescribed duties to build up their customer base. Yet, commission structures remain lucrative for agents, if and only if Eko's responsibilities are pursued in addition to a primary business, something that agents are struggling to balance successfully.

Other informal practices on the part of the agents were centered around the customers' convenience. For instance, agents would readily part with their personal mobile numbers to entertain calls regarding their whereabouts or wherewithal for completing transactions. This practice especially, ensured that customers would not have to return disappointed on making a trip to the agent's shop. In one particular case, the agent kept the customers' money (without providing any receipt, paper or otherwise) during a network downtime and completed the transaction at a later time, thereby saving the customers an additional trip to his shop. As questions and concerns around agent fraud, liabilities, and commensurate commissions continue to emerge, financial service providers must adhere to a minimum selection criteria set that excludes potentially unscrupulous agents, yet includes thriving, reliable and capable agents, for certainly the persistence and evolution of different informal practices on their part will continue to drive the mobile banking ecosystem. Indeed, a successful mobile banking platform will rely increasingly more on an agent network that serves as a financial intermediary, rather than just a cash-in/cash-out point of service.

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