



OTC: A Digital Stepping Stone, or a Dead End Path?

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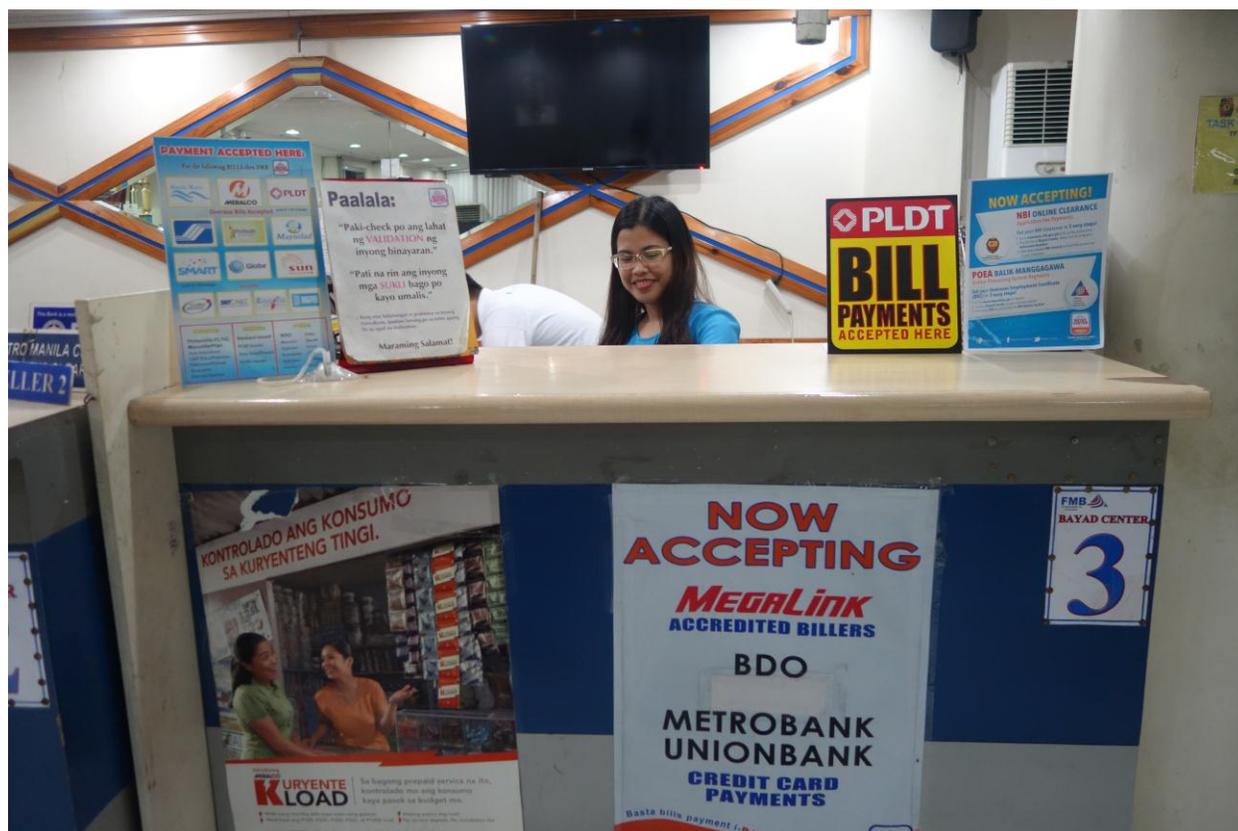
Introduction

The digital finance industry is both young and dynamic, and, as it grows, it is constantly innovating to address the issues it faces. One of the contemporary issues of discussion is over-the-counter (OTC) transactions. The delivery of mobile money over the counter, raises a number of questions around the fact that it can limit product evolution; can decrease provider profitability; and can lead to unregistered transactions, which run the risk of money laundering and terrorism financing.

In this paper, we want to look more closely at these questions and, with the help of data from The *Helix* Institute, InterMedia and the GSMA, provide an analytical perspective on the pros and cons of the OTC model. This will allow us to propose some recommendations on how to manage OTC going forward. We begin by defining a common ground for the discussion by creating a simple typology of different types of OTC. Then we look into the different questions raised by the OTC model. In the third section, we take a stand, arguing that certain types of OTC should be seen as a stepping stone to mobile money account adoption and usage. Lastly, we present our conclusions and recommendations to move the industry forward, given the data presented and some of the new developments in the field.



What and Why of OTC?



Background

OTC's relative ease of implementation and practical usefulness to customers has made it attractive for providers trying to build transaction volumes quickly. However, for providers seeking to build an ecosystem of mobile money, the potential limitations of OTC raise questions around its relevance and sustainability, around which the industry has yet to build a clear consensus. OTC transactions are prevalent across deployments in a number of markets, including Bangladesh, Cambodia, Côte d'Ivoire, Ghana, Pakistan, Paraguay, Philippines, Tanzania, Uganda and Zambia. GSMA reported that in June 2015, at least 37.4 million unregistered customers performed an OTC transaction. Further, 29 service providers reported that most of their transactions were OTC—most of these services (45 per cent) are based in South Asia and 28 per cent are based in sub-Saharan Africa.¹ OTC represented 14.4 per cent of the total global value of mobile money transactions in June 2015, and person-to-person (P2P) transfers remained the predominant use case.²

¹ GSMA (2016), "State of the Industry Report on Mobile Money." Available at: <http://www.gsma.com/mobilefordevelopment/programmes/mobile-money/industry-data-and-insights/sotir>

² Ibid.

Defining Over-the-Counter (OTC) Transactions

Unfortunately, as with any new concept, OTC is still poorly defined, and this is causing great confusion and impediments to reaching meaningful conclusions about it. GSMA and [MicroSave](#) have pointed this out in previous blogs and reports.³ To clarify, we have added Table 1 to anchor the discussion and further, expand the definition of OTC.

Table 1: Typologies of OTC Transaction and its prevalence

		LEVEL OF FORMALITY	
		Formal	Informal
USERS' IDENTIFICATION	Identified	OTC services in Pakistan, Paraguay, Guatemala, Honduras Transactions done at the bank branch	Agent-assisted transactions in East Africa
	Not Identified	No known examples	Direct deposits in sub-Saharan Africa, India and Bangladesh

In this report we define an OTC transaction as **“a transaction that the agent conducts on behalf of a customer from either the customer’s or agent’s mobile money account.”** This definition includes both transactions conducted by agents from their own accounts on behalf of customers, as is the case in Pakistan, as well as agent-assisted transactions that are popular in sub-Saharan Africa,⁴ where many users already have mobile money accounts, but are assisted by the agent to make their transactions. These agent-assisted transactions are made from the user’s accounts, and do not involve the agent’s account.

We want to further distinguish between “formal” methods approved by the provider and regulator (as is the case in Pakistan and Zambia), and “informal” methods (prevalent in Bangladesh, India, and elsewhere), which are frowned upon by regulators and disliked by providers to differing degrees. One informal method common in sub-Saharan Africa is **direct deposit**, where the user gives the agent cash, and the agent transfers it directly to a recipient, thus circumventing the P2P transfer that the user would have made. This decreases the revenue the provider would have earned, and is often accompanied by an unauthorised charge levied on the user by the agent. In 2013, the [Agent Network Accelerator \(ANA\)](#) surveys by The *Helix* Institute showed that 23 per cent of agents in [Tanzania](#), 30 per cent in [Uganda](#), [although only 3 per cent in [Kenya](#)] were offering direct deposits. Direct deposits are also prevalent in West Africa.

We add a second dimension to the definition, based on whether users are identified at the point of transaction, either through their mobile money accounts, or an identification card. In [Pakistan](#), users must bring their original identification document with a copy to make a transaction. In East Africa, many users conduct **agent-assisted transactions** where they come to the agent with their mobile phone, they give their mobile phone to the agent, in many cases disclose their PIN, and request the agent to conduct the transaction for them. Such agent-assisted transactions happen usually because either the users do not have the level of comfort or [lack technical literacy to do it themselves](#). The sender can be considered identified, as the

³ Mireya Almazán and Lynn Eisenhart, “OTC & Mobile Money: Making Sense of the Data.” Available at: <http://www.gsma.com/mobilefordevelopment/programme/mobile-money/otc-mobile-money-making-sense-of-the-data/>

⁴ The *Helix* Institute Tanzania and Uganda country reports in 2013 showed that it is common for agents to offer OTC transactions to customers, as described in more depth in this paper in later sections.

transaction is made over their registered mobile money account and they provide the PIN to authorise it.

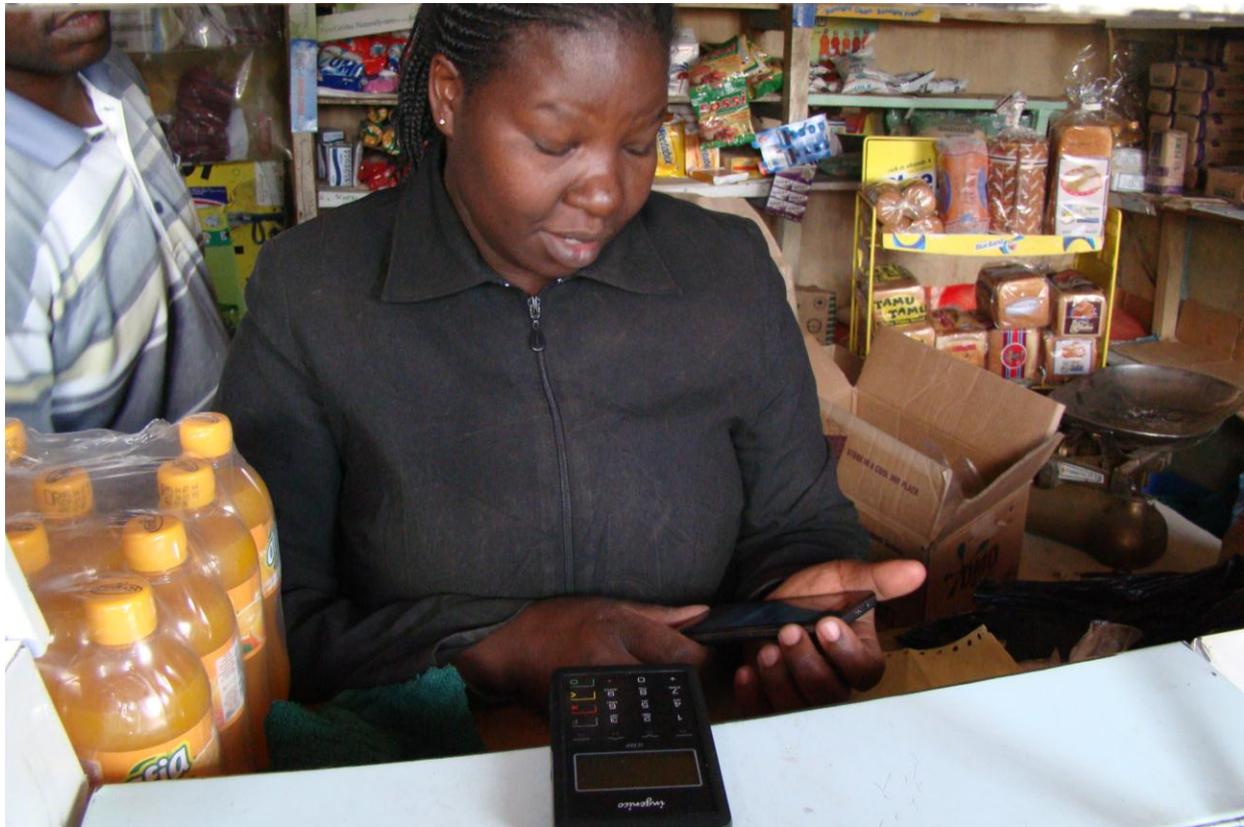
The last category is formal, unidentified transactions, which is just an artefact of the framework, as we are unaware of any country where the regulator would formally allow transactions to be conducted over the system, without having knowledge about those involved in the transfers.

We find the combination of this broad definition with this simple framework a helpful departure point for a deeper discussion on this controversial topic. OTC transactions can present a number of advantages for customers and, therefore, different mobile money providers have been testing OTC models in their markets. However, this should not introduce additional risk into the system by allowing unidentified users to conduct transactions through it. Therefore, only OTC methods where users and recipients are identified, should be pursued. This means formal systems of OTC can be supported and should be researched further; and informal systems, where users are not identified, should be formalised appropriately.



Is OTC as Problematic as We Thought?

In the previous section, we created an inclusive definition for OTC, based on the different usage behaviours we see, and then developed a simple framework for thinking about how each of them should be treated. In this section, we address some of the very valid concerns the industry has. We hope this will help the industry take a more balanced view of the OTC methodology, noting in many cases that the downsides might not be all they seem, and there are potential benefits that are seldom discussed.



Problem 1: OTC Increases AML/CFT Risks

We agree that certain types of OTC can increase the risk of money laundering and terrorism financing, and that is one of the reasons we started with the typology of OTC in first section. Informal OTC transactions, where the users are not identified, can cause this risk.⁵ From a regulatory perspective, the issue is whether to formalise this type of OTC so that it can be regulated within a market, or to ban it altogether. We find the latter option overly prescriptive and favour giving the providers, and the users, an opportunity to choose.

Principle 8 of the [G20 Principles for Innovative Financial Inclusion](#) states that regulators and providers alike should build a policy and regulatory framework that is proportionate with the risks involved in such innovative products and services, and is based on an understanding of the gaps and barriers in existing regulation. Thus, while it is important to stipulate that both the

⁵ GSMA (2015), “Proportional risk-based AML/CFT regimes for mobile money.” Available at: <http://www.gsma.com/mobilefordevelopment/programme/mobile-money/proportional-risk-based-amlcft-regimes-for-mobile-money-a-framework-for-assessing-risk-factors-and-mitigation-measures/>

user and recipient must be identified to mitigate money laundering and terrorism financing risks, **whether or not account registration is part of that process should be left to the market to determine.**

Problem 2: OTC Reduces Provider's Profitability

GSMA has pointed out that some revenues streams can decrease with OTC;⁶ however, a comprehensive analysis on the impact of OTC on total revenue and profit is currently missing from the industry discussion.

Two important factors impact the profitability of an OTC deployment: (1) Increased costs of operation, including agent commissions in competitive markets like Pakistan, where the [OTC methodology has given the agents extraordinary power over the providers and that has led to providers having to pay higher commissions than the revenue they earn](#) from cash-in or cash-out transactions. (2) Loss of revenue from other high-revenue transactions in markets like East Africa, where, generally, mobile money account-based service provider operators offer account-based mobile money and earn the highest margins from P2P transfers (as opposed to cash-in or cash-out transactions); so prevalence of direct deposits in such markets lead to decreased margins for the providers.



However, an accurate analysis of the impact of OTC on total revenues should also consider some of the benefits it offers. Pakistani and Latin American providers have used OTC models from the beginning, and this has resulted in reaching high volumes of transactions relatively quickly. This may be especially important for third-party providers who need to design an [attractive business model to raise capital from investors](#).

Further, when Telenor and Tameer Microfinance Bank introduced the Easypaisa in Pakistan, Telenor only had 22 per cent market share and wanted to use an approach that would [allow non-Telenor subscribers to use their Easypaisa service](#).⁷ Therefore, OTC can also be a useful tool in markets where initial banking/telecom markets are fragmented, as was the case in Pakistan. Even though the model may cause slow transition to accounts, Tameer Microfinance Bank's [Nadeem Hussain, reflecting four years after launch](#), stated that, in retrospect, he would have done it the same way again. Many of the other providers that chose OTC to expand their footprint, also express the same sentiment.

⁶ GSMA (2014), "Mobile money profitability: A digital ecosystem to drive healthy margins." Available at: <http://www.gsma.com/mobilefordevelopment/programme/mobile-money-programme/mobile-money-profitability-a-digital-ecosystem-to-drive-healthy-margins/>

⁷ Case study on Easypaisa, Designing Successful Distribution Strategies for Digital Money, 2015



The central question is: **if users were not offered the opportunity to transact OTC, would they use the system at all, and, if so, how would it affect their rate of adoption?** To answer this question, we would need to do a segmented market analysis, looking minimally at how behaviours of different sets of adopters would be affected.

While there are clear examples of how OTC can decrease profits due to agent commissions and direct deposits, from our experience we

know that it can help increase volumes of transactions in the short term, and might even be able to appeal to a larger market of users who are not interested in accounts. Both of which would increase revenue for the provider – in the short term, at the very least. Therefore, OTC seems to affect revenue in a bi-directional manner.

A comprehensive analysis would also focus on profit by incorporating OTC's impact on the costs of building and managing a digital finance rollout. Previously, GSMA analysis on the profitability of mobile money identified that in a start-up phase of a service, providers should expect to invest six to eight times the revenue units generated by mobile money.⁸ Companies spend millions of dollars on registration campaigns for mobile money accounts, but then subsequent use of accounts is often still very low. The GSMA's 2015 State of the Industry Report on Mobile Money shows a median mobile money account balance of US\$ 4.70 in June 2015 and the average customer conducted 11.2 transactions per month (up from 10.3 in 2014).⁹

Problem 3: Beginning With OTC Locks You Into the Model

While OTC usage may bring benefits to overcoming the initial customer barriers to using a mobile money account, it is argued that it will be much harder to transition users to mobile money accounts at a later stage, as users and agents become accustomed to OTC transactions.

In their 2015 report, GSMA found that the growth of customers transacting OTC has decelerated since 2013.¹⁰ The annualised growth rate for the number of users who transacted OTC was 22 per cent in 2015, compared to 33 per cent in 2014 and 102 per cent in 2013.¹¹ Further, in South Asia, where OTC usage is especially high, the 19 per cent year-on-year growth of OTC is less compared to the 46.6 per cent growth in registered accounts in the region. For GSMA, this

⁸ GSMA (2014), "Mobile money profitability: A digital ecosystem to drive healthy margins." Available at: <http://www.gsma.com/mobilefordevelopment/programme/mobile-money-programme/mobile-money-profitability-a-digital-ecosystem-to-drive-healthy-margins/>

⁹ GSMA (2016), "State of the Industry Report on Mobile Money." Available at: <http://www.gsma.com/mobilefordevelopment/programmes/mobile-money/industry-data-and-insights/sotir>

¹⁰ GSMA (2016), "State of the Industry Report on Mobile Money." Available at: <http://www.gsma.com/mobilefordevelopment/programmes/mobile-money/industry-data-and-insights/sotir>

¹¹ It should be noted that the total number of mobile money OTC customers may actually be much higher, as GSMA's figures only account for formal OTC usage that mobile money providers can track.

suggests that the increased focus of providers to migrate OTC customers to use mobile money accounts is bearing fruit.¹²

Most providers offering OTC also offer mobile money account registration at the same time. It is not the case that OTC is solely offered at first, and then mobile money accounts are offered at a later inflection point, whereupon there is a struggle to switch from OTC to mobile money accounts. Those offering both promote OTC use case more than the mobile money account use case. For most providers, mobile money account use and OTC use grows in tandem. **For instance, in Bangladesh, 55 per cent of registered users started using OTC and then subsequently registered for a mobile money account.**¹³

Further, over the past few years, we have seen **industry-leading numbers of account registrations in both Bangladesh and Pakistan, where OTC is prevalent.** These numbers are often overshadowed by OTC usage, but they illustrate that offering OTC does not limit providers from expanding adoption of mobile money accounts. For instance, bKash had an [estimated 3.5 to 4.4 million active accounts](#) (30-day basis) in August 2014. Further, Pakistan's biometric SIM registration drive looks like it could be driving "hockey stick" growth in account registrations (see Figure 1). Further, GSMA has pointed out that providers in Pakistan also made significant investments in ecosystem and interoperability initiatives to make accounts more compelling to consumers.¹⁴

Compiling data from [The State Bank of Pakistan](#), we note that in March 2015, account registration grew 39 per cent from the previous quarter, to reach over 7.5 million registered accounts (around 7 per cent of SIM holders in Pakistan). Riding on the same growth wave in October 2015, the number of registered mobile accounts in Pakistan increased to about 13.2 million, of which approximately 39 per cent are active on a 90-day basis, and 25 per cent are active on a 180-day basis. These large numbers are certainly buttressed by the large populations in these South Asian countries, but ample credit should also be given to the providers, as other populous countries like India, Nigeria, and Indonesia show us that large populations do not necessarily result in robust growth in digital finance.

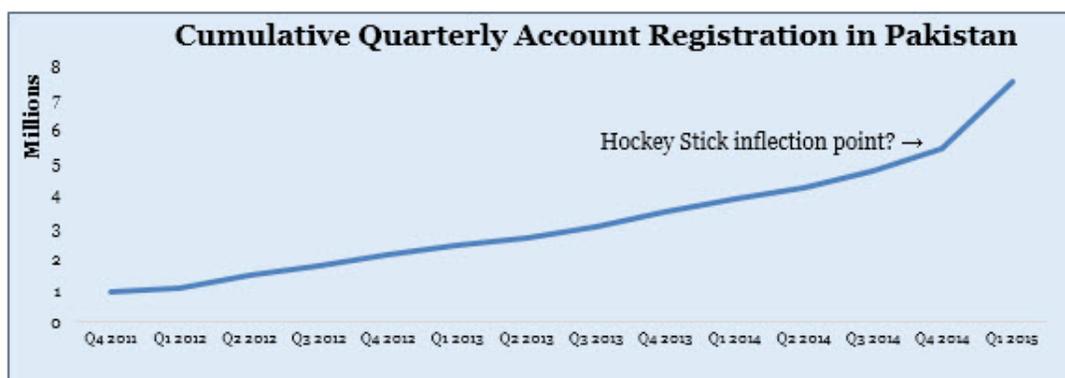


Figure 1: Branchless Banking Account Registration in Pakistan

Source: Branchless Banking Newsletter Jan-2011 to Mar 2015, State Bank of Pakistan

¹² GSMA (2016), "State of the Industry Report on Mobile Money." Available at: <http://www.gsma.com/mobilefordevelopment/programmes/mobile-money/industry-data-and-insights/sotir>

¹³ InterMedia 2013, Bangladesh Country Survey.

¹⁴ GSMA (2015), "Building digital societies in Asia: Making commerce smarter". Source: <https://gsmaintelligence.com/research/2015/11/building-digital-societies-in-asia-making-commerce-smarter/531/>

The Pakistani numbers are interesting not only for the steady growth that they have shown in branchless banking account registrations since 2011,¹⁵ but especially for the last quarter results, where providers showed a marked increase in account registrations, particularly riding on the back of SIM registration drives underway to use SIM KYC to open accounts.¹⁶ Mobicash also issued a press release in December 2015, noting a 20-fold increase in active mobile money accounts on a 30-day basis, growing from 25,000 in April 2015 to 500,000 in December 2015 incentivising customers by giving free airtime on every cash-in.¹⁷

A similar trend is also seen in Bangladesh,¹⁸ where account registrations have significantly increased (see Figure 2). However, these wallets are not being used: active accounts appear to have grown more slowly.



Figure 2: Account Registration in Bangladesh (Jan 2014 to Oct 2015)

Source: MFS data, Bank of Bangladesh

These account registration numbers in Pakistan and Bangladesh are impressive and illustrate that while **OTC is the main method in both of these countries, it does not prevent growth in account registrations.**

Registration is important for product evolution and building an ecosystem as discussed below, but registration campaigns might be optimally sequenced much later, after launch in some markets. This would allow providers to target specific user segments with tailored value added services via the mobile money account, which may well result in much higher levels of revenue-generating use.

Problem 4: OTC Limits Product Evolution

By registering and activating users, providers can use mobile money accounts as a conduit to offer users more products, which both generates more revenue for the provider, and more value for the client, as these services can better address their financial needs. Furthermore, services that successfully build mature, ecosystem-based deployments can expect healthy

¹⁵ The State Bank of Pakistan only reports figures back until Q4 2011, so that is as far as our analysis goes, even though Easypaisa and Omni both launched their services the year before.

¹⁶ The impetus for this was a government mandated SIM registration which providers used to their advantage to register people for branchless banking accounts.

¹⁷ Please see the press release here. These numbers and the definition used for “Active” were confirmed to the authors by Mobicash staff. <http://propakistani.pk/2015/12/11/mobicashs-active-mobile-wallet-customers-grow-to-over-500000/>

¹⁸ Mobile Financial Services data sourced from Bangladesh Bank

profit margins of more than 20 per cent and cashflow margins to exceed 15 per cent.¹⁹ However, there is some industry concern around how OTC limits this product evolution.

In 2015, the GSMA reported that airtime top-ups, bill payments and person-to-person (P2P) transfers globally account for 96 per cent of transaction volumes and 87 per cent of values.²⁰ OTC allows for all three of these transaction types, so long as the transactions are made at the agent outlet.



Other mobile financial services

products, such as mobile credit, savings, and insurance, often do require a mobile money account, and are innovative evolutions building on mobile money. For example, in Kenya, sophisticated financial products like [M-Shwari](#), [KCB M-PESA Account](#), [Lipa na M-PESA](#) and [M-Ledger](#) require an existing M-PESA account. However, these products came five years after M-PESA's launch, which may raise a question about whether **a possible approach is letting customers build familiarity with mobile money through OTC, while encouraging them to register for mobile money accounts when there are more compelling use cases for mobile money accounts.**

This approach would not preclude collecting data on their preferences and usage during an initial period of OTC, either. As mentioned above, formal OTC requires customers to provide identification, and allows providers to collect similar data that they would be able to, if they were making account-based transactions.

In some instances, slow growth rates with some new products and services may mean that [active agent assistance might be needed](#) to sell the products to the mass market. This may suggest that the optimal time to register users might actually be upon launch of an account-based product that requires agent promotion. While some argue that agents would not want to do this, given the [high revenue](#) they earn from OTC, The [Helix 2014 Pakistan Country Report](#) shows that only 26 per cent of agents surveyed felt this way, with the other 74 per cent willing to conduct customer registrations for mobile money accounts.²¹ Therefore, given the

¹⁹ GSMA (2014), "Mobile money profitability: A digital ecosystem to drive healthy margins." Available at: <http://www.gsma.com/mobilefordevelopment/programme/mobile-money-programme/mobile-money-profitability-a-digital-ecosystem-to-drive-healthy-margins/>

²⁰ GSMA (2016), "State of the Industry Report on Mobile Money." Available at: <http://www.gsma.com/mobilefordevelopment/programmes/mobile-money/industry-data-and-insights/sotir>

²¹ See slide 14, Pakistan Country Report, 2014

right incentives, agents may be more willing to help with registrations than commonly thought. Further, they provide trusted advice to the customers to help introduce new products and services to the mass market.



Problem 5: OTC Creates Volatility in Market Share

As Easypaisa [realised](#) when it launched in Pakistan, OTC transactions do not require the user to have a specific SIM card in their phone; in fact, it does not require them to have a SIM card, or even a mobile phone. This makes the potential user market much larger, and means that providers can conduct transactions for the users of their

competitors. While this can be an advantage for a first mover in the beginning, as their rivals employ the same tactics, it quickly turns into an issue. Further, the barrier to entry for subsequent providers is much lower than it would be if the market ran on a registered account basis. Competitors can approach agents and offer them a better commission for selling their service instead. In economic terms, the service offered is “substitutable”.

This is certainly a disadvantage, and very much how the market has evolved, particularly around agent commissions, in [Pakistan](#). However, in Bangladesh we do not observe this trend at all, and in 2014 when InterMedia interviewed 1,209 unregistered mobile money users, 94 per cent²² of them reported using bKash, meaning that even in this heavily OTC-based market with many competitors, bKash has managed to maintain extreme dominance. This means **while an OTC methodology theoretically could result in high client churn, it is certainly not an inevitable outcome in some markets...or that competitor providers were unwilling to engage in agent commission wars to take on a provider’s dominant market position.**

²² InterMedia 2014, FII Bangladesh Wave I Report, http://finclusion.org/wp-content/uploads/2014/12/InterMedia-FII_Bangladesh_Year-1-Wave-Report.pdf

The Irony of OTC: It's Client-Centric



When assessing whether or not a provider should offer OTC in a market, they should first and foremost focus on why users choose OTC over mobile money accounts in markets where they are often offered in tandem. There are very different methods for delivering services OTC, which can co-exist in the same ecosystem, like direct deposits and agent-assisted transactions in East Africa, or the [different methods](#) used simultaneously in Bangladesh.

Further, these methods do not even seem to be specific to individual users. A user may have a mobile money account, yet forget their identification, and decide to ask the agent to conduct an informal OTC transaction. And yet, the next time, the same user might have their identification, but there is a line at the agent, or the system is down, so they leave their cash with the agent to conduct an OTC transaction for them at a later time. These types of issues make trying to understand a single motivation for user usage of OTC difficult to understand, and more research in this area is certainly warranted. We have analysed current data²³ that we have and in this section we make some initial conclusions.

Regardless of the method being used, **in many countries where OTC is offered in addition to mobile money accounts, the majority of users seem to prefer OTC.**²⁴ When asked why they prefer OTC,²⁵ generally they respond by saying OTC fulfils their needs, and do not cite reasons related to the awareness of mobile money accounts, or issues with registering. Similarly, the service providers also promote OTC more than the mobile money account.

²³ Data sourced from The *Helix* Institute of Digital Finance (<http://www.helix-institute.com/data-and-insights>), and InterMedia (<http://finclusion.org/datacenter/>)

²⁴ Financial Inclusion Insights by InterMedia observes that users are more likely to make a transaction through OTC versus using an account.

²⁵ InterMedia (<http://finclusion.org/datacenter/>). Results are discussed in more detail in this section.

To further understand why users prefer OTC to registering for accounts in some markets, a market segmentation of account adoption can provide a helpful context.

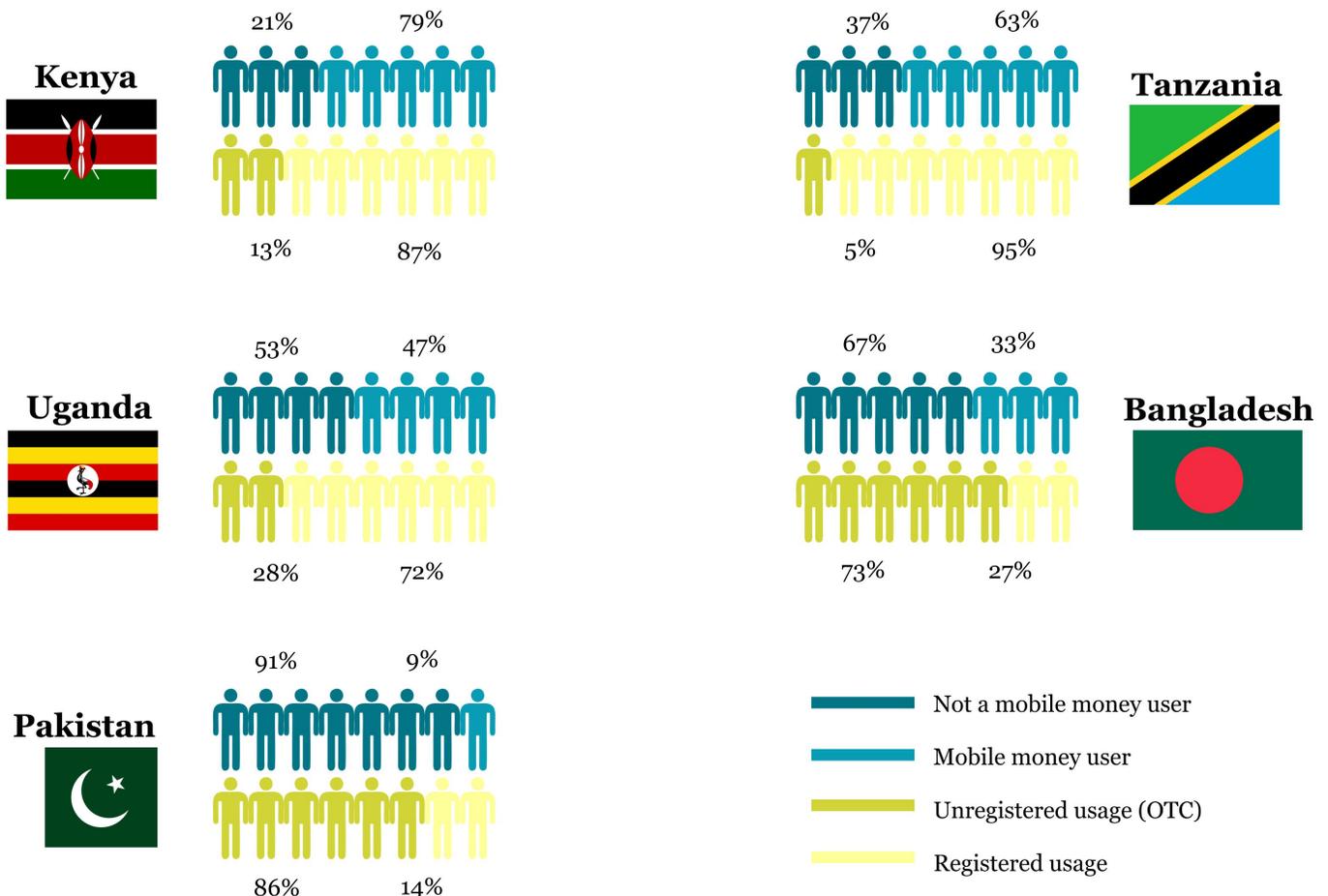
Market Segmentation of Account Adoption

Generally, we can segment the market into three large user groups:

- 1) **Innovators and early adopters** that are quick to use the service (usually young, urban, salaried, males; likely to register early even given an OTC option)
- 2) **Early and late majority** that usually come later and take some convincing (a bigger portion of the population but probably not as wealthy as the innovators and early adopters. They will likely register, but it is unclear if an OTC option will increase or decrease that timeline); and
- 3) **Laggards or never going to adopt** (impoverished, rural, women, and illiterate populations and in many countries can be the majority of the population), who may not perceive a need for mobile money account, even once they understand it, but might want to make the occasional transaction over the system, and may be enticed by future, more helpful, products. They will likely be more comfortable transacting with an agent, may not see utility in registering for a mobile money account, and even if they are forced to, will probably just use it at an agent location anyway for the foreseeable future.

[InterMedia](#) (2015), provides a helpful glance across our five leading markets, noting digital finance usage as a proportion of the population in the pie charts, and then segmenting further into registered and non-registered (OTC) usage in the figure below.

Mobile Money Usage



From this figure, a number of insights are evident: (1) Mobile money penetration in East Africa is greater than in South Asia, but this is hard to compare across countries, given providers started at different dates, and have different sized populations to cover. (2) While the majority of users in East Africa are registered, the vast majority in South Asia are not.

Even more interesting is the data that InterMedia²⁶ collected in 2014 in Kenya and Uganda. Of the respondent sample, 57 per cent of registered users in Uganda, and 54 per cent of registered users in Kenya reported they preferred to “use OTC via an agent”.²⁷

Comparing the above figure to the market segmentation of account adoption, we can say that innovators and early adopters in all countries are likely to be already using mobile money. In East Africa, they are likely all registered for mobile money accounts, and in Bangladesh there may be a mix of registered and unregistered users, while in Pakistan they are still largely unregistered users transacting OTC.

Examining client demand for the innovators and early adopters in these markets (first 15–20 per cent of the market to start using the service), in all leading markets, apart from Pakistan, it appears this demographic is mostly registered users. [The InterMedia 2014 Bangladesh Report](#) notes registered users were young, male, urban, and banked, which is a similar demographic to innovators and early adopters²⁸ of M-PESA in Kenya.

The reasons why Pakistan’s innovators and early adopters have not registered for accounts is unclear, but probably has to do with a lack of focus on account registration, coupled with aggressive marketing of the OTC model; whereas in Bangladesh, providers do not market the



²⁶ InterMedia (<http://finclusion.org/datacenter/>)

²⁷ It is important to note that these are preferences, and that it is still unclear how strongly they translate into action: meaning, while they might prefer OTC, they actually use their m-wallets, because OTC transactions are discouraged by providers in Uganda, and most providers in Tanzania.

²⁸ Ngugi, Benjamin, Matthew Pelowski, and Javier Gordon Ogembo. "M-PESA: A case study of the critical early adopters' role in the rapid adoption of mobile money banking in Kenya." *The Electronic Journal of Information Systems in Developing Countries* 43 (2010).

OTC model, as it is informal. We expect the numbers to change in Pakistan, as a result of the large biometric SIM registration drives that have happened since InterMedia's data was collected. However, we can preliminarily conclude that innovators and early adopters will likely refrain from registration, unless it is actively marketed, as shown in Pakistan; but also may very willingly register when it is actively marketed, even given an OTC option, as shown in Bangladesh.

The early and late majority are much more complicated and important, given that they are a much larger segment. The early and late majority are also mostly registered in East Africa; however, they likely account for the lion's share of unregistered usage, there too. In Kenya, there are 21 per cent of adults who are still not using the system, of which many would be early and late majority. In South Asia, early and late majority probably account for a small portion of the registered users. The majority of early and late majority in both Bangladesh and Pakistan are unregistered users or non-users. [Brad Jones' writes a wonderful article](#) on this, calling the term "mobile money" a misnomer in Asia, where he notes the reliance is so heavy on OTC that it should really be called, "Agent Money". He notes, at Wing Cambodia, where he used to work, they introduced formal OTC after launching wallets, and it accounted for an estimated 90 per cent of transactions.

To conclude, in a market-led environment, service delivery should be determined by user demand. OTC, ironically, thus, is client-centric, as users prefer it to accounts to fulfil their needs. Users do not cite reasons related to the awareness of mobile money accounts or issues with registering to not-to-prefer accounts. The innovators and early adopters will likely refrain from registration unless it is actively marketed, but also may very willingly register when it is, even given an OTC option. The early and late majority, when given the ability to choose, would prefer to conduct OTC transactions at an agent outlet, rather than via an account.



Supply-Side Perspective for Banks and Third Parties

One of the important drivers of OTC in Asia actually comes from the supply side. Many of the Asian regulatory environments dictate that mobile network operators (MNOs) cannot own the digital finance service. Wing started as part of ANZ Bank, bKash is a subsidiary of BRAC Bank and, even in Pakistan, where MNOs run the strategic operations of most of the services, they had to either partner with a bank, or obtain a banking licence.



Most Asian providers have a partnership with a bank or a banking licence, and offer fully mapped mobile money accounts. The differentiation between fully mapped mobile money accounts (which banks can offer with all their value add of branding/trust and product differentiation) and MNOs' mobile money accounts is that the MNOs cannot intermediate the funds like any deposits. For banks, it is of particular interest to have people register and save – so that they have more funds to intermediate. However, given the cost of managing an account on a core banking system, banks need substantial deposit balances, typically held in savings rather than transaction accounts, to cover their costs. Banks can generate revenue by holding people's money and investing it, and, therefore, do not focus so much on transaction account-based revenue. Thus, they do not put much emphasis on *how* a transaction is made (whether via OTC or via a mobile money account). However, in case of OTC, the money is not held in any account.

A similar argument holds true for third-party providers that offer services as that of Asian providers. Third parties effectively control the agents, and are charged a fee when they or their users use a USSD or SMS channel to conduct transactions. They, therefore, also have a much

lower need to push an m-wallet-based transaction method, and are more likely to choose an OTC model and price their services accordingly.

In contrast to South Asian MMOs, East African MNOs must keep the e-value they hold for users in a trust account, and they do not earn revenue from it, so they charge fees on transactions made over the system to generate revenue. To get money into the system, they usually do not charge a fee for cash-in, but they still pay the agent a commission, so it is a loss-making transaction. East African providers do make money when the user cashes out, but it is split with the agent. So the real margins they make are on the P2P transfers or bill pay transfers that happen from a mobile money account. Perhaps that is why East African operators are aggressive about registering users and curbing the use of OTC.

Conclusions

The industry and stakeholders have expressed concerns around OTC causing: increased AML/CFT risks, decrease in provider revenue, locking providers into the model, limiting product evolution, and creating volatility in market shares for the providers. As analysed in the previous sections, we conclude the following:

- Certain OTC typologies may increase risks of money laundering and terrorism financing; however, this should not mean that the regulators should ban OTCs altogether. Instead, the regulators should let the market decide the nuances of the registration processes. One way could be to formalise OTC transactions to ensure that user and recipient can be identified.
- OTC transactions lead to considerable reduction in the profits for the providers because of higher operational costs; however, it is compensated for by the fact that OTC models have resulted in increased number of transactions and is appealing enough for a segment of users who are not interested in accounts.
- Registration for accounts is important for product evolution and building an ecosystem; however, in some cases, depending upon the market conditions, registration campaigns might be optimally sequenced much later, after launch, as it would allow providers to target specific user segments with tailored value-added services.
- Industry experts argue that it is much harder to transition users to mobile money accounts at a later stage, as users and agents become accustomed to OTC transactions. However, it is noteworthy that most providers offering OTC also offer mobile money account registration at the same time. For most providers, mobile money account use and OTC use grows in tandem. The industry-leading numbers of account registrations in both Bangladesh and Pakistan, where OTC is prevalent, illustrate that OTC does not prevent growth in account registrations.
- OTC is often seen as limiting product evolution; however, OTC does not preclude providers from collecting data on users' preferences and usage, and if the providers are able to identify user and recipient, they can collect similar data that they would be able to if they were making account-based transactions. A possible approach to product evolution is letting customers build familiarity with mobile money through OTC, collecting their data and building products (provided the user and recipient are identified), and compelling use cases for mobile money accounts, while encouraging them to register for mobile money accounts.

In the last section, we discuss some of the best ways we see of accommodating these user preferences in these digital systems to help move the industry forward.

Recommendations

To assess the issues from the perspectives of all stakeholders involved to put forward recommendations that balance existing users' preference for OTC options, with regulators' requirements to have users identified, providers' desire to constantly evolve product offerings through an account, and agents' need to earn a decent margin from the business, We have outlined the pros and cons for each of these stakeholders in the table below as we build our recommendations for how the industry can systematically address this issue.

Stakeholder	Pros	Cons
Regulators and Policy-Makers	OTC can catalyse uptake, and therefore, access to financial service, which is a common goal of regulators. Further, allowing a formal method to exist can reduce the risks inherent in informal methods.	If there is not a formalised methodology, as customer identity is unknown and informal ones especially could lead to AML/CFT risks.
Providers	In some markets, OTC may be an easy way to grow usage quickly from the start, especially if the provider's market share in their core business is not dominant, and could be the only way of reaching early and late majority quickly.	For the sub-set of users that would have made a mobile money account-based transaction (as opposed to just not using the system), there is reduction in profits, as OTC models are easier for competitors to copy and could potentially start an agent commission war. In addition to this, it can be hard to transition from an OTC model to a mobile money account-based model.
Agents	They are able to provide the service in a way that many people are demanding, and it can often mean more revenue per transaction for them.	
Users	If they feel uncomfortable with the system, agents can conduct the transaction for them, and they are not forced to register for a mobile money account, for which they might not perceive a need.	With informal methods, they are usually exposed to extra charges from agents, and if they do not have an account, they may not be able to access more value-added services, as the provider deploys them.

Formalise OTC in markets where it is prevalent to avoid unknown transactions and cover AML/CFT risks: OTC transactions *per se* are not evil! In some markets, OTC helps users to build confidence in digital finance products and services, as there is a proof of transaction (through calling the recipient); this encourages use of mobile money products; and allows low literacy/technologically-challenged users to access financial services using digital channels. Considering the fact that the AML/CFT risks of informal systems are considerable, we recommend that regulators assess whether a form of OTC, where sender and recipients are identified, would be appropriate in their markets. As there has been a strong regulatory push to reduce OTC transactions and move to registration and use of mobile money accounts, all the entities including operators, channel partners and customers are focussing on registered usage, causing a steady decline in non-registered usage. Thus, formalising OTC may reduce the force of pushing the OTC to registered transaction from all entities. This should be kept in mind as OTC usage is formalised, as this recommendation may not have a universal application.

- a. **Use technology to identify and verify users:** The existing technology provides enough opportunity to identify and verify customers. Where agents are making the transaction on their phones, the mobile money platform could be configured to send an SMS message to the sender as well as the receiver – thus confirming the transaction and identifying those involved. Technology, such as that of biometrics and near field communications (NFC) or even smartphones, provide convenience for the service providers to capture customer information. However, earlier this year, Pakistan used biometrics to register 90 million SIM cards in 90 days. India also has the much-lauded [Aadhaar programme](#), and so does Nigeria, through its [Bank Verification Number](#), tied to the national IDs. In India, the [Aadhaar based e-KYC service](#)²⁹ has the potential to reduce the risk of identity fraud and allow for paperless KYC verification. Providers may explore the use of biometrics or NFC to capture user data and to authenticate payments for mobile money services. The largest challenge for implementing this will be infrastructure, as the devices are expensive to use on a large-scale basis and rural areas continue to struggle with connectivity. However, use of smartphone apps has the potential to address this distribution challenge. With this app, mobile money providers can offer a [full upgrade path](#) to heavier mobile money users who like the convenience of payments on the fly, but want much more interaction, structure and information around their money matters.
- b. **Use graphical user interface and app-based kiosks at agent's place to enhance awareness of users:** Mobile money users from low-income segments and rural areas have limited financial capabilities and lack technological savvy required to self-transact. Further, their financial behaviours are much more aligned to informal practices and institutions. Lack of awareness of technology and lack of ability to conduct self-initiated transactions has given rise to dormant accounts and the rise of OTC transactions. Mobile money providers should develop and implement easy user interfaces and applications that mimic the actual processes used by the end-client, with big icons, that speak in vernacular, all on a tablet at the agent's location. Using agents to enhance awareness through use of apps on a tablet would work as digital stepping stones for the users to help build fluency and trust to self-transact.

[Ignacio Mas](#) maintains that an increase in smartphone penetration will be a significant game changer in the financial inclusion landscape. Smartphones offer flexible, user-friendly interfaces with graphical icons, touch screens and soft keys which facilitate intuitive usage; provide extensibility through NFC/Bluetooth to link up smartphones to scanners, printers, card readers, POS, etc.; and offer low incremental communication cost through data plans.

²⁹ Electronic repository of demographic details and photograph verifiable through biometric authentication

For third-party service providers, it offers an opportunity to be independent of telecom organisations and enable more efficient ways of data capture, providing for richer, more frequent, customer interactions. Further, *MicroSave* research has found that people think about money in an [instinctive, story-based manner](#) and transact in the physical world primarily using informal systems. A better approach might be to support current behaviour and practices and let new tools, such as the tablets outlined above, introduce them to new behaviours and practices.

Introduce mobile money accounts in the markets in parallel to OTC and eventually migrate the customers: To cater to user demand, mobile money providers should also offer OTC options alongside m-wallets. Agents can best be used to place stepping stones for users to garner more fluency with and trust in these systems. It is easier to change the operational/business model than people's preferences. This is particularly true for mobile network operators trying to eliminate direct deposits – a strategy that may only be tenable until banks enter the market at scale. In Kenya, in [2013](#), as per The *Helix* Agent Network Accelerator Survey, 3 per cent of all agents offered direct deposit services; this increased to 5 per cent of all agents in [2014](#). In [2014](#), one in five [bank](#) agents offered direct deposit services to users. So, while MNOs in MNO-dominated mobile money deployments are trying hard to curb the use of direct deposits, agency banking continues to use direct deposits to increase usage. In addition, if OTC is appropriately embraced, it may yield a treasure trove of user data to facilitate product design and delivery. Thus, we recommend that providers re-think their strategies and business model, and rather than seeking to outlaw OTC, embrace it and strategise sequencing of mobile money accounts and products as a way to build outreach.

- a. Segment the market into innovators and early adopters , early and late majority, and laggards and never -going-to-adopt, and develop products accordingly:** Mobile money accounts cannot be used to offer the user more services unless providers have: (1.) Built enough data on users to launch digital credit and/or (2.) Created enough user confidence in the system so that people trust storing value on it. In Kenya, products such as [M-Shwari](#), [KCB M-PESA Account](#) , and [Lipa na M-PESA](#), and in Zimbabwe, [Ecocash](#) Digital Textbooks are examples of where providers focussed on innovative product/service evolutions on the account, as they gathered data from the market on user-centric and feasible product/service ideas. As part of the evolution of DFS, providers in maturing and emerging markets should:
- Segment the market into three large user-groups, namely, innovators and early adopters, that are quick to use the service; early and late majority, that usually come later and take some convincing; and laggards and never-going-to-adopt users, who may not perceive a need for mobile money account, even once they understand it, but might want to make the occasional transaction over the system, and may be enticed by future more helpful products.
 - Focus on assessing needs of these three groups of users to build products, provide tangible value proposition to them.

About *MicroSave*

MicroSave is a financial inclusion consulting firm, driving inclusive financial growth across Asia and Africa. *MicroSave* offers consulting services in the areas of Inclusive Finance & Banking, Digital Financial Services; Micro, Small and Medium Enterprises and Private Sector Development.

We work with Influencers and decision-makers amongst financial service providers - banks, microfinance institutions (MFI), mobile network operators (MNOs), cooperatives and governments, donor organisations (foundations, multilaterals, bilaterals), and other groups, including regulators, industry networks, etc. who, in some way or the other, contribute to financial inclusion.

We have implemented projects across Africa, Asia and Latin America.

About The *Helix Institute of Digital Finance*

The **Helix Institute of Digital Finance**, founded in November 2013 as a partnership between *MicroSave*, the Bill & Melinda Gates Foundation, the International Finance Corporation (IFC), and the UN Capital Development Fund (UNCDF), provides world-class training and cutting-edge data for digital financial service providers.

Our operational training courses are explicitly designed for mobile network operators, banks, financial institutions and third party providers seeking to increase the efficiency and profits of their digital finance business. Held in Nairobi, Kenya we currently run two courses on agent network management - **Core Agent Network Accelerator and Advanced Agent Network Accelerator**.

In addition, The Helix Institute publishes exclusive research reports on mobile money agent networks as part of its global Agent Network Accelerator (ANA) Research Programme. ANA, a collaboration between *MicroSave* and the Bill & Melinda Gates Foundation, is the largest research project on agent networks in the world, designed to determine what drives their success and scale. Visit our **Data & Insights** page for more details.

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