



# ➤ OVER THE COUNTER TRANSACTIONS: A THREAT TO OR A FACILITATOR FOR DIGITAL FINANCE ECOSYSTEMS?

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**Over the counter transactions: A threat to or a  
facilitator for digital finance ecosystems?**

Focus Group Technical Report

ITU-T

## **FOREWORD**

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## **About this report**

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## **Executive summary**

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 key contemporary issues is over the counter (OTC) transactions. The delivery of mobile money over the counter raises a number of questions since it can: 1) limit product and ecosystem evolution; 2) decrease provider profitability; and 3) lead to unregistered transactions, which run the risk of money laundering and terrorism financing.

This report explores these questions and, with the help of data from the Helix Institute, InterMedia, and the Groupe Spécial Mobile Association (GSMA), provides an analytical perspective on the pros and cons of the OTC to arrive at conclusions and key considerations which move the industry forward.

The report begins with an all-inclusive definition of OTC which considers the typology of different types of OTCs based on the different usage behaviours. In the next section, key concerns that the industry has, and validity of these concerns with respect to OTC methodology have been analysed. The authors of this report argue that certain types of OTC should be seen as a stepping stone to mobile money account adoption and usage. Lastly, the report presents the conclusion and highlights four key considerations for the industry to mull over which would accommodate the preferences of all stakeholders, namely users, agents, providers and regulators, given the data presented and some of the new developments in the field.

## 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 key contemporary issues is over the counter (OTC) transactions. The delivery of mobile money over the counter raises a number of questions since it can: 1) limit product and ecosystem evolution; 2) decrease provider profitability; and 3) lead to unregistered transactions, which run the risk of money laundering and terrorism financing.

OTC is a new work stream effort in the Ecosystem Working Group of the ITU DFS. In this report, 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 to arrive at conclusions and key considerations to move the industry forward.

## What and why of OTC transactions?

### Defining OTC transactions

Unfortunately, as with any new concept, OTC transaction is still poorly defined, as the GSMA and [MicroSave](#) have pointed this out in previous blogs and reports.<sup>1</sup>

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	
		Approved by regulators (formal)	Not approved by regulators (informal)
Sender and/or recipient's 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 sender/recipient or both from either the sender’s or agent’s mobile money account.”** This definition includes both transactions conducted by agents from their own accounts on behalf of senders, as is the case in Pakistan, as well as agent-assisted transactions that are popular in sub-Saharan Africa,<sup>2</sup> where many senders and recipients already have mobile money accounts, but are assisted by the agent to make their transactions. These agent-assisted transactions are made from the sender’s accounts, and do not involve the agent’s account.

<sup>1</sup> Mireya Almazán and Lynn Eisenhart, *OTC & Mobile Money: Making Sense of the Data*.

<http://www.gsma.com/mobilefordevelopment/programme/mobile-money/otc-mobile-money-making-sense-of-the-data>

<sup>2</sup> 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.

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 sender gives the agent cash, and the agent transfers it directly to a recipient’s mobile money account, thus circumventing the P2P transfer that the user would have made.

We add a second dimension to the definition of OTC, based on whether sender/recipient are identified at the point of transaction either through their mobile money accounts, or an identification card. In Pakistan<sup>3</sup>, sender/recipient must bring their original identification document with a copy to make a transaction. In East Africa, many senders conduct **agent-assisted transactions** where they come to the agent with their mobile phone, they give their mobile phone to the agent, and 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 senders do not have the level of comfort or lack technical literacy to do it themselves<sup>4</sup>. The sender can be considered identified, as the transaction is made over their registered mobile money account and they provide the PIN to authorise it.

Another way to look at OTC is to analyse the parties involved in the transaction. Any transaction may take one of the following forms:

**Table 2 - Defining OTC transaction using the parties involved approach<sup>5</sup>**

		Recipient		
		Mobile money account	No mobile money account	Mobile money account with agent assistance
Sender	Mobile money account	Not OTC	Partial OTC: Direct withdrawal	Agent assisted OTC: Wallet transaction
	No mobile money account	Partial OTC: Direct deposits	Pure OTC	Partial OTC: Direct deposits
	Mobile money account with agent assistance	Agent assisted OTC: Wallet transaction	Partial OTC: Direct withdrawal	Agent assisted OTC: Wallet transaction

While a transaction involving agents (even a person who is not a formal agent) for sender and receiver without a mobile money account is a form of pure OTC, transactions involving the agent’s assistance at either the sender’s or receiver’s end should also be considered as OTC. This framework includes situations where either the sender or recipient, or both, may or may not have a mobile money account. We find the combination of the broad definitions used earlier with the simple frameworks developed a helpful departure point for a deeper discussion on this controversial topic.

<sup>3</sup> See <http://www.helix-institute.com/data-and-insights/agent-network-accelerator-survey-pakistan-country-report-2014>

<sup>4</sup> Mike McCaffrey and Doreen Ahimbisibwe. *Digital Finance and Illiteracy: Four Critical Risks*, Dec. 2015. <http://www.cgap.org/blog/digital-finance-and-illiteracy-four-critical-risks>

<sup>5</sup> THIS OTC MATRIX INCLUDES USER-TO-USER WALLET TRANSACTIONS WHERE THIRD PARTIES WHO ARE NOT NECESSARILY AGENTS MAY MISREPRESENT IDENTITY, ACT AS ‘INFORMAL AGENTS’ OR ASSIST THE USERS TO CARRY OUT THE TRANSACTION.

## Prevalence of OTC

OTC's relative ease of implementation and practical usefulness to mobile money users has made it attractive for providers trying to build transaction volumes quickly. OTC transactions are prevalent across deployments in a number of markets, including Bangladesh, Ghana, Pakistan, Paraguay, Philippines, Tanzania, Uganda, and Zambia.

The GSMA reported that in June 2015, at least 37.4 million unregistered mobile money users 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.<sup>6</sup> 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.<sup>7</sup>

In 2013, the Agent Network Accelerator (ANA) surveys by The Helix Institute showed that 23 per cent of agents in Tanzania<sup>8</sup>, 30 per cent in Uganda<sup>9</sup>, (although only 3 per cent in Kenya<sup>10</sup>) were offering direct deposits. Direct deposits are also prevalent in West Africa.

## Are 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 highlight the key concerns that the industry has and analyse how valid these concerns are with respect to the OTC methodology.

### ***Problem 1: OTC increase anti-money laundering (AML)/ combating the financing of terrorism (CFT) risks***

Informal OTC transactions, where either the sender or recipient or both are not identified, can increase the risk of money laundering and terrorism financing.<sup>11</sup> To date, regulators may take two approaches to mitigate this risk: a) formalise this type of OTC so that it can be regulated within a market, or b) ban it altogether. We find the latter option overly prescriptive and favour giving the providers, and the mobile money users, the opportunity to choose. Principle 8 of the G20 Principles for Innovative Financial Inclusion<sup>12</sup> 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 sender and recipient (in a P2P transaction)**

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<sup>6</sup> GSMA *State of the Industry Report on Mobile Money*, 2016.

<http://www.gsma.com/mobilefordevelopment/programmes/mobile-money/industry-data-and-insights/sotir>

<sup>7</sup> Ibid.

<sup>8</sup> Mike McCaffrey, Leena Anthony, Annabel Schiff, Kimathi Githachuri, Graham A.N. Wright. *Agent Network Survey: Tanzania Country Report 2013*, April 2014.

<http://www.helix-institute.com/data-and-insights/agent-network-survey-tanzania-country-report-2013>

<sup>9</sup> Kimathi Githachuri, Mike McCaffrey, Leena Anthony, Annabel Schiff, Anne Marie van Swinderen, Graham A. N. Wright. *Agent Network Accelerator Survey – Uganda Country Report 2013*, Jan. 2014.

<http://www.helix-institute.com/data-and-insights/agent-network-accelerator-survey-%E2%80%93-uganda-country-report-2013-0>

<sup>10</sup> Aakash Mehrotra, Sheharyar Khan, Leena Anthony, and Dorieke Kuijpers. *Agent Network Accelerator Survey - Kenya Country Report 2014*, May 2015.

<http://www.helix-institute.com/data-and-insights/agent-network-accelerator-survey-kenya-country-report-2014>

<sup>11</sup> GSMA. *Proportional risk-based AML/CFT regimes for mobile money*, 2015.

<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/>

<sup>12</sup> See GPFi website

<http://www.gpfi.org/sites/default/files/documents/G20%20Principles%20for%20Innovative%20Financial%20Inclusion%20-%20AFI%20brochure.pdf>

**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 limits product evolution***

By registering and activating mobile money users, providers can use mobile money accounts as a conduit to offer mobile money users more products, catalysing a more robust ecosystem. This, in turn, 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 profit margins of more than 20 per cent and cash flow margins which exceed 15 per cent.<sup>13</sup> However, there is some industry concern around how OTC limits this product evolution.<sup>14</sup>

In 2015, the GSMA reported that airtime top-ups, bill payments, and P2P transfers globally accounted for 96 per cent of transaction volumes and 87 per cent of values.<sup>15</sup> OTC allows for all three of these transaction types, as long as the transactions are made at the agent.

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 and successful 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<sup>16</sup> after M-PESA's launch. As a result, one may consider OTC an appropriate tool to promote adoption and familiarity with mobile money for early use cases (airtime top-up, P2P, bill payments); and when additional use cases (credit, savings, insurance) are made available that require an account, end users, who have already been familiarised with the early product, may be more compelled and able to register for an account.

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 mobile money users to provide identification (to send or to receive), and allows providers to collect similar data that they would be able to, if they were making account-based transactions.

Moreover, in some instances, slow growth rates with new products and services may mean that active agent assistance might be needed<sup>17</sup> to sell the products to the mass market. This may suggest that the optimal time to register mobile money 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<sup>18</sup> they earn from OTC, The Helix 2014 Pakistan Country Report<sup>19</sup> shows that only 26 per cent of agents surveyed felt this way, with the other 74 per cent willing to

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<sup>13</sup> GSMA. *Mobile money profitability: A digital ecosystem to drive healthy margins*, 2014.

<http://www.gsma.com/mobileforddevelopment/programme/mobile-money-programme/mobile-money-profitability-a-digital-ecosystem-to-drive-healthy-margins/>

<sup>14</sup> MicroSave. *Over The Counter Transactions – Liberation Or A Trap? – Part I*, 2015.

<http://blog.microsave.net/over-the-counter-transactions-liberation-or-a-trap-part-i/>

<sup>15</sup> GSMA. *State of the Industry Report on Mobile Money*, 2016.

<http://www.gsma.com/mobileforddevelopment/programmes/mobile-money/industry-data-and-insights/sotir>

<sup>16</sup> Safaricom introduced products using accounts as early as in 2009 (two years after the launch) such as Kilimo Salama, M-KESHO, however these products did not succeed and scale up.

<sup>17</sup> Anastasia Mirzoyants and Mike McCaffrey. *The Human Touch Required to Evolve Digital Finance*, Nov. 2014.

<http://www.helix-institute.com/blog/human-touch-required-evolve-digital-finance>

<sup>18</sup> Isaac Holly Ogwal. *The OTC Trap – Impact on the Business Case for Uganda's Mobile Network Operators*, August 2014.

<http://blog.microsave.net/the-otc-trap-impact-on-the-business-case-for-ugandas-mobile-network-operators/>

<sup>19</sup> Maha Khan and Aakash Mehrotra. *Agent Network Accelerator Survey - Pakistan Country Report 2014*, May 2015.

<http://www.helix-institute.com/data-and-insights/agent-network-accelerator-survey-pakistan-country-report-2014>

conduct mobile money user registrations for mobile money accounts.<sup>20</sup> Therefore, given the right incentives, agents may be more willing to help with registrations than commonly thought. They also provide trusted advice to the mobile money users which helps introduce new products and services to the mass market.

### ***Problem 3: Beginning with OTC locks you into the model***

While OTC usage may bring benefits to overcoming the initial mobile money user barriers to using a mobile money account, such as lack of requisite numeracy/literacy, fear and lack of trust in digital financial services (DFSs), complicated user interfaces etc., it is argued that it will be much harder to transition users to mobile money accounts at a later stage, as the OTC users and agents become accustomed to OTC transactions.<sup>21</sup>

In their 2015 report, the GSMA found that the growth of mobile money users transacting OTC has decelerated since 2013.<sup>22</sup> The annualised growth rate for the number of the OTC users was 22 per cent in 2015, compared to 33 per cent in 2014 and 102 per cent in 2013.<sup>23</sup> 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. Moreover, in Bangladesh, 55 per cent of registered mobile money users started using OTC and then subsequently registered for a mobile money account.<sup>24</sup> To the GSMA, this suggests that the increased focus of providers to migrate OTC users to use mobile money accounts is bearing fruit.<sup>25</sup>

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<sup>26</sup> (30-day basis) in August 2014. Further, Pakistan's biometric SIM registration drive looks like it could be driving impressive growth in account registrations (see Figure 1). In addition, GSMA has pointed out that providers in Pakistan have also made significant investments in ecosystem and interoperability initiatives to make accounts more compelling to consumers.<sup>27</sup>

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

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<sup>20</sup> See slide 14, Pakistan Country Report, 2014.

<http://www.helix-institute.com/data-and-insights/agent-network-accelerator-survey-pakistan-country-report-2014>

<sup>21</sup> MicroSave. *Over The Counter Transactions – Liberation Or A Trap? – Part II*, 2015.

<http://blog.microsave.net/over-the-counter-transactions-liberation-or-a-trap-part-ii/>

<sup>22</sup> GSMA. *State of the Industry Report on Mobile Money*, 2016.

<http://www.gsma.com/mobilefordevelopment/programmes/mobile-money/industry-data-and-insights/sotir>

<sup>23</sup> It should be noted that the total number of mobile money OTC users may actually be much higher, as GSMA's figures only account for formal OTC usage that mobile money providers can track.

<sup>24</sup> InterMedia 2013, Bangladesh Country Survey.

<sup>25</sup> GSMA. *State of the Industry Report on Mobile Money*, 2016.

<http://www.gsma.com/mobilefordevelopment/programmes/mobile-money/industry-data-and-insights/sotir>

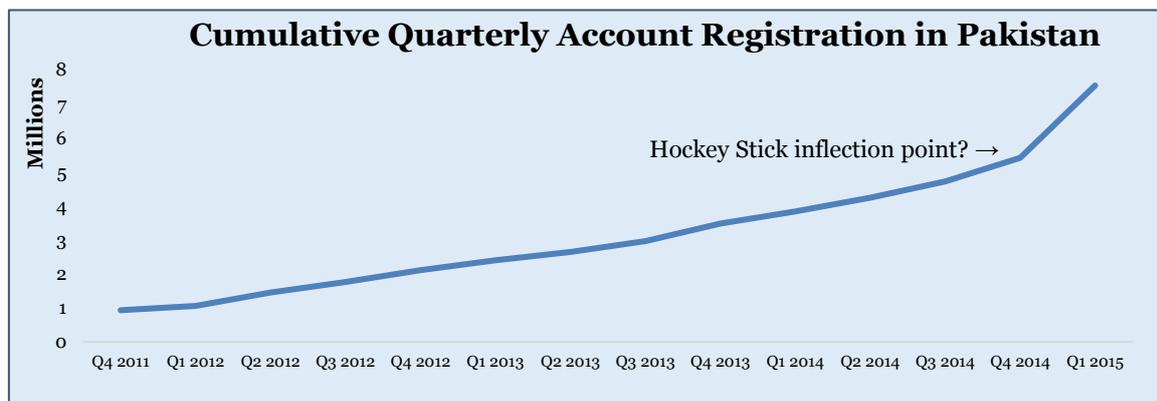
<sup>26</sup> Anastasia Mirzoyants and Mike McCaffrey. *The Human Touch Required to Evolve Digital Finance*, Nov. 2014.

<http://www.helix-institute.com/blog/human-touch-required-evolve-digital-finance>

<sup>27</sup> GSMA. *Building digital societies in Asia: Making commerce smarter*, 2015.

<https://gsmaintelligence.com/research/2015/11/building-digital-societies-in-asia-making-commerce-smarter/531/>

per cent of SIM holders in Pakistan). Riding on the same growth wave in October 2015<sup>28</sup>, 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- Account registration in Pakistan (Q4, 2011 to Q1, 2015)**

Source: Branchless Banking Newsletter, State Bank of Pakistan Available at: <http://www.sbp.org.pk/publications/acd/branchless.htm>

The Pakistan numbers are interesting not only for the steady growth they have shown in branchless banking account registrations since 2011,<sup>29</sup> but also 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.<sup>30</sup> 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 mobile money users by giving free airtime on every cash-in.<sup>31</sup>

A similar trend is also seen in Bangladesh,<sup>32</sup> where account registrations have significantly increased (see Figure 2). However, these wallets are not being used: Active accounts appear to have grown more slowly.

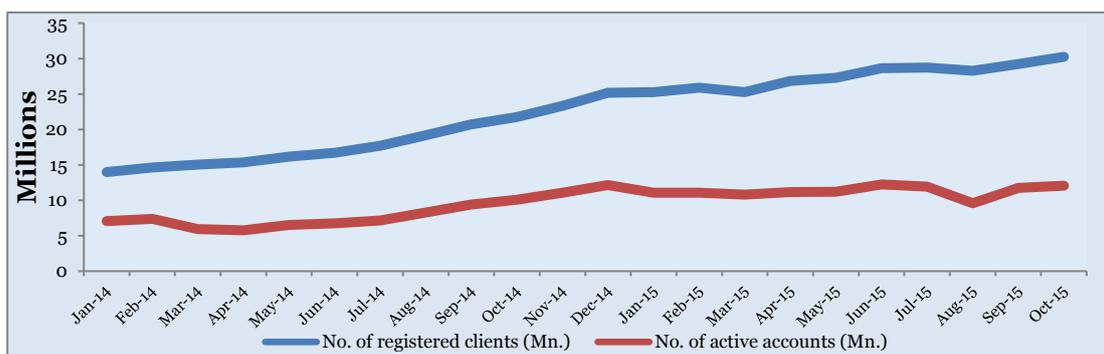
<sup>28</sup> Branchless Banking Newsletter, State Bank of Pakistan Available at: <http://www.sbp.org.pk/publications/acd/branchless.htm>

<sup>29</sup> 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.

<sup>30</sup> The impetus for this was a government mandated SIM registration which providers used to their advantage to register people for branchless banking accounts.

<sup>31</sup> 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/>

<sup>32</sup> Mobile Financial Services data sourced from Bangladesh Bank



**Figure 2 - Account registration in Bangladesh (Jan-2014 to Oct-2015)**

Source: Mobile Financial Services (MFS) comparative summary statement, Bangladesh Bank Available at: <https://www.bb.org.bd/fnansys/paymentsys/mfsdata.php>

These account registration numbers in Pakistan and Bangladesh (which are primarily OTC markets) 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, building an ecosystem, and achieving full financial inclusion as previously discussed, but registration campaigns may be most optimally sequenced after launch.** 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 reduce provider’s profitability***

GSMA has pointed out that some revenue streams can decrease with OTC<sup>33</sup> 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<sup>34</sup> over the providers and has led to providers having to pay higher commissions than the revenue they earn from cash-in or cash-out transaction<sup>35</sup>. 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.<sup>36</sup> While this might encourage providers not to offer OTC at all, the question remains: **If OTC users were not offered the opportunity to transact using OTC methods, would they use the system at all, and if so, how would it affect their rate of adoption?**

<sup>33</sup> GSMA. *Mobile money profitability: A digital ecosystem to drive healthy margins*, 2014. <http://www.gsma.com/mobilefordevelopment/programme/mobile-money-programme/mobile-money-profitability-a-digital-ecosystem-to-drive-healthy-margins/>

<sup>34</sup> Maha Khan and Mike McCaffrey. *The Powerful Agents & Fractured Markets of Pakistan*, June 2015. <http://www.helix-institute.com/blog/powerful-agents-fractured-markets-pakistan-0>

<sup>35</sup> Graham Wright. *Over The Counter Transactions – Liberation Or A Trap? Part III*, Dec. 2014. <http://blog.microsave.net/over-the-counter-transactions-liberation-or-a-trap-part-iii/>

<sup>36</sup> MicroSave. *The OTC Trap – Impact on the Business Case for Uganda’s Mobile Network Operators*, 2014. <http://blog.microsave.net/the-otc-trap-impact-on-the-business-case-for-ugandas-mobile-network-operators/>

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.

While there are clear examples of how OTC can decrease profits due to agent commissions<sup>37</sup>, it can also help increase the volume of transactions in the short term as no SIM or phone is required to transact, and might even be able to appeal to a larger market of mobile money users who are not interested in accounts because they fear that they might get locked into using one. Both of which would increase revenue for the provider. As a result, a comprehensive analysis on the impact of OTC on total revenue and profit should be undertaken.

### ***Problem 5: OTC creates volatility in market share***

As EasyPaisa<sup>38</sup> 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 market much larger, and means that providers can conduct transactions for the subscribers of their competitors. While this can be an advantage for an early adopter in the beginning, as their rivals employ the same tactics, it quickly turns into an issue. 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”.<sup>39</sup>

This is certainly a disadvantage, and very much how the market has evolved, particularly around agent commissions, in Pakistan.<sup>40</sup> 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 cent 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.**

### **The irony of OTC: It’s client-centric**

A mobile money 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 mobile money 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 behaviours make trying to understand usage of OTC difficult. Further research into this area is certainly warranted. We have outlined some early conclusions and considerations based on current data below.

**In Bangladesh, Pakistan, Tanzania, and Uganda, where OTC is offered in addition to mobile money accounts, the majority of mobile money users seem to prefer OTC.**<sup>41</sup> This appears to be

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<sup>37</sup> MicroSave. *Over The Counter Transactions – Liberation Or A Trap? – Part III*, 2015.

<http://blog.microsave.net/over-the-counter-transactions-liberation-or-a-trap-part-iii/>

<sup>38</sup> See <http://digitalmoney.shifthought.co.uk/easypaisa-pakistan-a-5-year-journey-from-otc-to-digital-money/>

<sup>39</sup> MicroSave. *Over The Counter Transactions – Liberation Or A Trap? – Part II*, 2015.

<http://blog.microsave.net/over-the-counter-transactions-liberation-or-a-trap-part-ii/>

<sup>40</sup> Maha Khan and Mike McCaffrey. *The Powerful Agents & Fractured Markets of Pakistan*, June 2015.

<http://www.helix-institute.com/blog/powerful-agents-fractured-markets-pakistan-0>

<sup>41</sup> Financial Inclusion Insights by InterMedia observes that users are more likely to make a transaction through OTC versus using an account, reports from Financial Inclusion Insights are available at: <http://finclusion.org/reports/>

driven by two factors: 1) *Needs based behaviour*: when asked why they prefer OTC,<sup>42</sup> generally users respond by saying OTC fulfils their needs, and do not cite reasons related to the awareness of mobile money accounts, or issues with registering. Indeed many implicitly or explicitly refer to service and risk related issues as the reason why they prefer to use an agent to make the transaction.) Service promotion: In countries such as Bangladesh and Pakistan, the service providers also promote OTC more than the mobile money account.

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 groups:

1. *Innovators and early adopters* that are quick to use the service (usually young, urban, salaried males, who are likely to register early when given an OTC option);
2. *The 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. *Late adopters, or those who are never going to adopt* (Impoverished, rural, women, and illiterate populations which in many countries can be the majority of the population), who may not perceive a need for a 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 appropriate, 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.

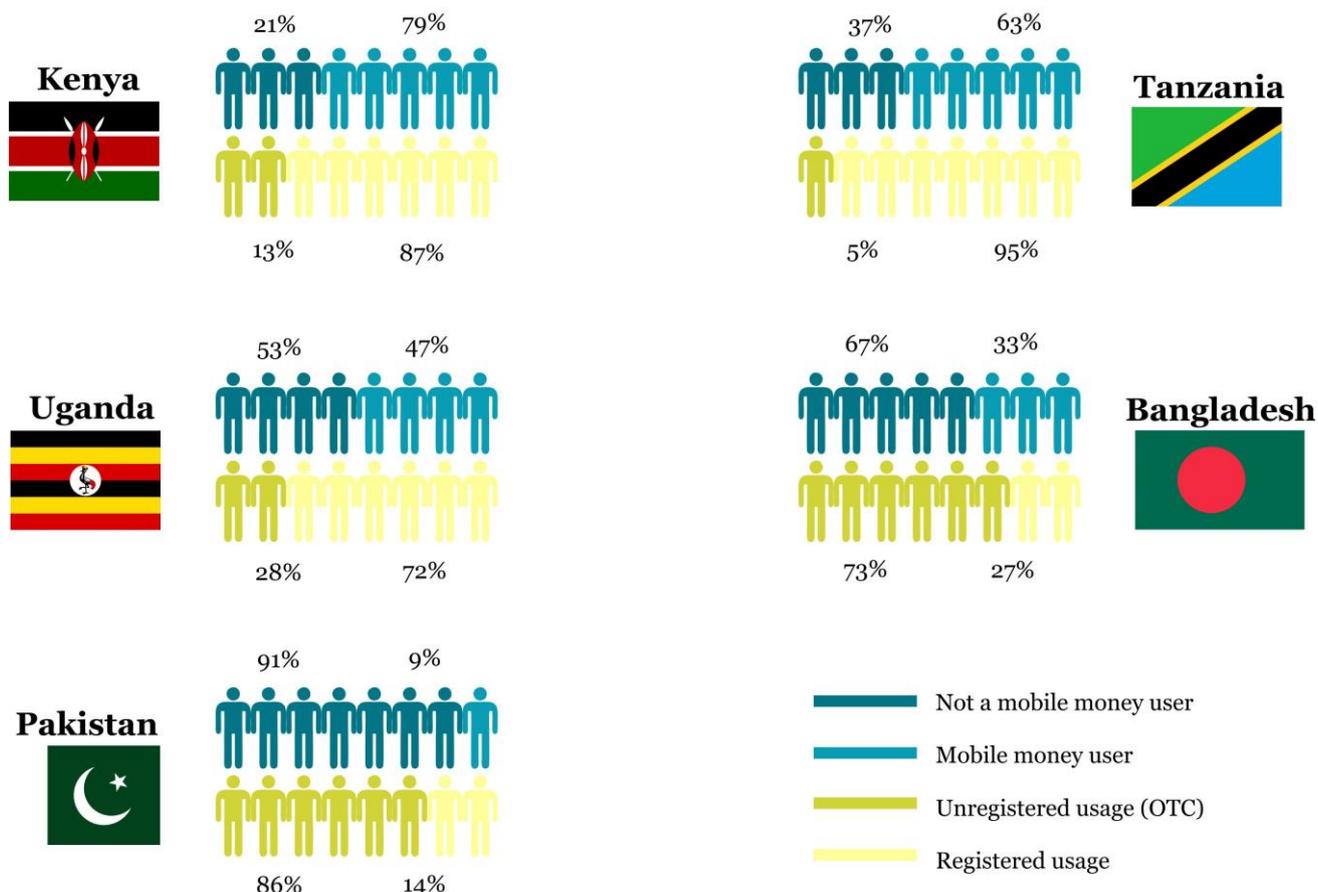
InterMedia<sup>43</sup> (2016), provides a helpful glance across five leading markets, noting digital finance usage as a proportion of the population in the pie charts, and then segmenting further into registered and non-registered (OTC) usage in the figure below.

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<sup>42</sup> InterMedia (<http://finclusion.org/datacenter/>). Results are discussed in more detail in this section.

<sup>43</sup> See InterMedia at: <http://www.intermedia.org/>

## Mobile Money Usage



**Figure 3 - Mobile money usage and registrations in Kenya, Tanzania, Uganda, Bangladesh and Pakistan**

Source: InterMedia 2016, Available at:

<http://finclusion.org/uploads/file/2016%20InterMedia%20FII%20CONVERTING%20TO%20USE%20poster.pdf>

Interestingly, 57 per cent of registered mobile money users in Uganda, and 54 per cent of registered mobile money users in Kenya reported they preferred to “use OTC via an agent”. 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.

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 mobile money users, while in Pakistan they are still largely unregistered mobile money users transacting OTC.

Examining client demand for the innovators and early adopters in these markets (the 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 mobile money users. The InterMedia 2014 Bangladesh Report notes registered mobile money users were young, male, urban, and banked, which is a similar demographic to innovators and early adopters of M-PESA in Kenya.

The reasons why Pakistan's innovators and early adopters have not registered for accounts are unclear, but probably have 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 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.

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 mobile money users. The majority of early and late majority in both Bangladesh and Pakistan are unregistered mobile money users or non-users. Brad Jones wrote an article<sup>44</sup> 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 that 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 demand. Because of this, OTC, ironically, is client-centric, as mobile money users prefer it to accounts to fulfil their needs. Mobile money users rarely cite reasons related to the awareness of mobile money accounts, or issues with registering, as their basis for not opening accounts. The innovators and early adopters will likely refrain from registration when it isn't actively marketed, but may be very willing to do so when it is, even given an OTC option. The early and late majority, when given the ability to choose, will still prefer to conduct OTC transactions at an agent, 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 DFS. 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 still have 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, along with their value add of branding/trust and product differentiation) and MNOs' mobile money accounts is that the MNOs cannot intermediate the funds. 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 the 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 mobile money users, use an unstructured supplementary service data (USSD) or short**

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<sup>44</sup> Brad Jones. *The Paradox of Calling Mobile Money 'Mobile' in Asia*, September 14, 2014. <http://www.mobilemoneyasia.org/2014/09/the-paradox-of-calling-mobile-money.html>

**message service (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 MNOs, East African MNOs must keep the e-value they hold for mobile money users in a trust account and 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 change 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 mobile money 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 mobile money users and curbing the use of OTC.

## Conclusions

The industry and stakeholders have expressed concerns around OTC causing: Increased AML/CFT risks, decreased 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:

- Pure OTC and partial OTC lacking identification of either the sender, the recipient, or both, may increase the risk of money laundering and terrorism financing. However, this should not mean that the regulators should ban OTCs altogether. Instead, the regulators may formalise OTC transactions to ensure that both the sender and the recipient (for a P2P transaction) can be identified. Also, the regulators should let the market decide the nuances of the registration processes.
- OTC is often seen as limiting product evolution. However, OTC may be an appropriate tool to promote adoption and familiarity with mobile money for early use cases. This approach does not preclude providers from collecting data on the preferences and usage of the mobile money users during an initial period of OTC. The data thus collected may be used to develop additional use cases around credit, savings, and insurance and can be pushed through a mobile money account. The end users, thus having already been familiarised with the early use cases, may be more compelled, and able, to register for an account.
- Industry experts argue that it is much harder to transition pure and partial OTC users to mobile money accounts at a later stage, as the OTC 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.
- Registration for accounts is important for product evolution and building an ecosystem. However, in some cases, depending upon the market conditions, registration campaigns may be most optimally sequenced after launch, as it would allow providers to target specific user segments with tailored value added services.
- Pure OTC transactions lead to a considerable reduction in profits for the providers because of higher operational costs. However, it is compensated for by the fact that OTC models have resulted in an increased number of transactions and is appealing enough for a segment of mobile money users who are not interested in accounts.

To assess the issues from the perspectives of all stakeholders involved that balance: 1) Existing users' preference for OTC options; 2) Regulators' requirements to have such users identified; 3)

Providers’ desire to constantly evolve product offerings through an account; and 4) Agents’ need to earn a decent margin from the business. For the industry to systematically address this issue, we have outlined the pros and cons for each of these stakeholders in table 3.

**Table 3 - Stakeholder pros and cons**

Stakeholder	Pros	Cons
<b>Regulators and policy-makers</b>	OTC can catalyse uptake and access to financial services, 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 mobile money user identity is unknown, and informal ones especially could lead to AML/CFT risks.
<b>Providers</b>	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 subset of mobile money users that would have made a mobile money account-based transaction (as opposed to just not using the system), there is a reduction in profits, as OTC models are easier for competitors to copy and could potentially start an agent commission war. In addition, it can be hard to transition from an OTC model to a mobile money account- based model.
<b>Agents</b>	Agents 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.	
<b>Mobile money users</b>	If mobile money users 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, mobile money users 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.

There are four key considerations to accommodate these preferences in existing digital systems to help move the industry forward. These are:

1. Should policy makers and regulators formalise OTC in markets where it is prevalent to avoid unknown transactions and cover AML/CFT risks?
2. Is there a scope for the use of technology to efficiently identify and verify senders and recipients to allow OTC usage?
3. How can the industry introduce and implement mobile money accounts in the markets in parallel to OTC to efficiently migrate the mobile money users?
4. How can the industry segment the market to develop customer-centric products and services to encourage registered usage of mobile money accounts?