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Impact of Regulations on Cash-In and Cash-Out Networks

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Introduction

Many low- and middle-income countries remain challenged by a financial infrastructure gap, evidenced by very low numbers of bank branches and automated teller machines (ATMs) (e.g., 2.9 branches per 100,000 people in Ethiopia versus 13.5 in India and 32.9 in the United States (U.S.) and 0.5 ATMs per 100,000 people in Ethiopia versus 19.7 in India and 173 in the U.S.) (The World Bank 2015a; 2015b). Furthermore, only an estimated 62 percent of adults globally have a banking account through a formal financial institution, leaving over 2 billion adults unbanked (Demirgüç-Kunt et al., 2015). While conventional banks have struggled to extend their networks into low-income and rural communities, digital financial services (DFS) have the potential to extend financial opportunities to these groups (Radcliffe & Voorhies, 2012). In order to utilize DFS however, users must convert physical cash to electronic money which requires access to cash-in, cash-out (CICO) networks—physical access points including bank branches but also including "branchless banking" access points such as ATMs, point-of-sale (POS) terminals, agents, and cash merchants. Broadening CICO networks via branchless banking may extend financial opportunities to low-income and rural communities as branchless access points are often offered through existing infrastructure (e.g., retailers and other trusted intermediaries) that partner with banks or mobile network operators (MNOs) (Lyman, Ivatory, & Staschen, 2006; Radcliffe & Voorhies, 2012; Maurer, Nelms, & Rea, 2013).

For rural and low-income populations far from physical bank infrastructure, CICO networks may provide much needed access to DFS such as bank accounts or loans, as well as money transfer options. Multiple authors have argued that CICO networks could fill the financial infrastructure gap in Africa and increase financial inclusion (Andrianaivo & Kpodar, 2011; Alexandre, 2011; McKay & Pickens, 2010; Ivatury & Mas, 2008). CICO networks also facilitate customers' access to mobile money, which is viewed as safer, cheaper, and easier to deliver than physical cash (Mas & Sullivan, 2012). While few studies have reported on the overall impacts of expanding

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Please direct comments or questions about this research to Principal Investigators Leigh Anderson and Travis Reynolds at eparinfo@uw.edu.

¹ Branchless banking is defined by the Alliance for Financial Inclusion (2016) as the delivery of financial services outside conventional bank branches through agents or other third party intermediaries using technologies such as card-reading point-of-sale (POS) terminals and mobile phones to transmit transaction details. Branchless banking "is not limited to bank services; it also includes an array of financial services provided by nonbanks" (p. 3). Branchless banking may follow bank-based, nonbank-based, or mixed models (CGAP, 2008).

² The GSMA (2010) defines an agent as "a person or business that is contracted to facilitate transactions for users. The most important of these are cash-in and cash-out (i.e., loading value into the mobile money system, and then converting it back out again); in many instances, agents register new customers too. Agents usually earn commissions for performing these services. They also often provide front-line customer service—such as teaching new users how to initiate transactions on their phone. Typically, agents will conduct other kinds of business in addition to mobile money... Some industry participants prefer the terms "merchant" or "retailer" to describe this person or business to avoid certain legal connotations of the term "agent" as it is used in other industries."

CICO networks, many studies report impacts of branchless banking and mobile money. For example, Pénicaud and Katakam (2013) find that mobile money extends payment and other financial services in many developing countries, with more mobile money accounts than bank accounts in nine countries (Cameroon, the Democratic Republic of Congo, Gabon, Kenya, Madagascar, Tanzania, Uganda, Zambia, and Zimbabwe). They add that MNO agents providing CICO services are more prevalent than bank branches in 44 countries, and that this has contributed to the uptake in mobile money (*Ibid.*). DFS through retail agents, either led by banks or nonbank commercial actors such as MNOs, has the potential to extend financial services to unbanked and marginalized communities (Lyman, Ivatury, & Staschen, 2006), offering lower transaction costs and greater accessibility (Villasenor, West, & Lewis, 2016). McKay & Pickens (2010) and Alexandre (2011) argue that branchless banking may succeed in broadening financial inclusion in the future, as investments in infrastructure now will reduce future costs, and financial services offered through these institutions may be modified to better target low-income and unbanked populations. McKay & Pickens (2010) observe that "branchless banking prices to consumers are already marginally lower than comparable services and will likely fall as branchless banking matures" (p. 12).

CICO networks facilitate the exchange between cash and electronic money and may thereby increase financial inclusion opportunities through the expansion of mobile money and other DFS (Villasenor, West, & Lewis, 2016; Radcliffe & Voorhies, 2012). According to the Global System for Mobile Communications Association (GSMA) (2015), approximately half of the global population that is financially excluded has access to a mobile phone, creating the potential for mobile money, digital credit, and other DFS to reduce the financial access gap. For many low-income customers, mobile financial services will provide their first access to any formal financial services (e.g., checking and savings accounts or loans), and formal services are usually safer, cheaper, and less time consuming than informal financial alternatives (e.g., borrowing or transferring money through relatives, friends, money lenders, and traders) (Andrianaivo & Kpodar, 2011; Lyman, Ivatury, & Staschen, 2006; Kashuliza, Hella, Magayane, & Mvena, 1998). While the expansion of DFS has the potential to increase financial inclusion (Villasenor, West, & Lewis, 2016; Radcliffe & Voorhies, 2012), CICO physical access points are necessary for the exchange between physical cash and mobile money (Mas & Sullivan, 2012).

As mobile money and branchless banking expand, countries are developing new regulations to govern their operations (Lyman, Ivatury, & Staschen, 2006; Lyman, Pickens, & Porteous, 2008; Ivatury & Mas, 2008), including regulations targeting aspects of the different CICO interfaces. These regulations, especially on mobile money and branchless banking agents, may affect the potential for CICO networks to support financial inclusion. This report summarizes types of recent mobile money and branchless banking regulations related to CICO networks and reviews available evidence on the impacts these regulations may have on markets and consumers.

Background: Regulations Affecting CICO Networks

To provide context for this review, EPAR conducted a search for regulations that may specifically affect agent-based CICO networks. We concentrated our search on eight countries in sub-Saharan Africa and South and Southeast Asia: Bangladesh, India, Indonesia, Kenya, Nigeria, Pakistan, Tanzania, and Uganda. Levels of financial inclusion vary widely across these countries. According to data from the 2015 Financial Inclusion Insights survey (Intermedia, 2015), 66.1 percent of the population in India has a bank account, compared to 8.7 percent in Pakistan and 9.4 percent in Tanzania. Among those who have heard of mobile money, 80.2 percent have adopted (ever used) mobile money in Kenya, compared to 5.1 percent in India and 5.5 percent in Indonesia. These countries may therefore serve as illustrative case studies of different levels of mobile money network development and the CICO networks that facilitate the exchange between physical cash and digital mobile money (Macmillan et al. 2016).

Reviewing documents from Central Banks or other financial authorities in each country, we identified evidence on regulations that may affect CICO networks in the following areas:

- i. business channel requirements;
- ii. agent requirements;
- iii. restrictions on fees and charges; and
- iv. customer identification requirements.

Table 1 summarizes the regulations we identified in each country. Appendix B provides a typology of regulatory decision options, highlighting differences in the choice of regulatory approaches across the focus countries. Appendix C provides more detailed descriptions of the regulatory context within each country.

Some regulations could potentially limit the growth of CICO networks, for example limits on the use of agents for CICO transactions by non-banks (such as MNOs that offer mobile money services), requirements for agent exclusivity (meaning agents cannot provide services for multiple financial service providers), requirements for agents to have business licenses, and agent location restrictions. Tarazi & Breloff (2011) predict that some regulations such as agent exclusivity may encourage early CICO market growth, but later limit competition in the market for CICO services. Other regulations may limit the growth of CICO markets, but create other positive externalities. For example, Macmillan et al. (2016) state that regulations such as customer identification requirements may limit the growth of CICO services but help protect against fraud.

Methods

This report reviews available evidence reporting the impacts on markets and consumers of mobile money and branchless banking regulations affecting CICO networks.³

Our search targeted reports that discuss the regulation of CICO networks, mobile money, branchless banking, or DFS broadly. While we prioritized literature that mentions regulations in Bangladesh, India, Indonesia, Kenya, Nigeria, Pakistan, Tanzania, and Uganda, we did not limit our search by geography. As additional criteria, we only considered literature that was published after 2005 to gather more recent information on regulatory impacts. Our searches resulted in 90 documents that met these screening criteria. We classified these 90 documents into three categories of relevance:

- Directly relevant documents both 1) describe CICO-related regulation(s) and 2) discuss the impact(s) of the regulation(s).
- Indirectly relevant documents describe CICO-related regulation(s), but do not discuss impact(s).
- Secondary documents discuss CICO networks but not regulation(s) or impact(s).

Of the 90 documents we identified, we considered 31 articles to be "directly relevant." We did not identify any documents mentioning regulation of "cash in-cash out networks" specifically, but many documents discuss particular mobile money and branchless banking regulations that affect CICO networks. Of the 31 "directly relevant" articles, 26 discuss regulations to both mobile money and branchless banking or agents, 4 only discuss regulations related to mobile money, and 2 only discuss regulations related to ATMs. We also included information from 10 additional "indirectly relevant" documents in this report, as these articles provide additional context on CICO-related regulations and reported impacts.

³ Appendix A provides the list of search strings we used to identify regulations and their associated impacts, conducting searches on Scopus, Google Scholar, and Google. We also conducted a series of supplemental searches, modifying these search strings by adding specific terms for target organizations and geographies.

Table 1. Summary of Regulations Affecting CICO Networks, Selected Countries

Country (% adoption of traditional and digital	(% adoption of traditional and digital		Agent Requirements		Restrictions on	Fees and Charges	Customer Identification Requirements ⁶	
financial services, 2017) ⁴ (Mobile money agent outlets registered per 100,000 adults, 2015) (ATMs per 100,000 adults, 2015) ⁵	Can banks use agents for CICO?	Can non- banks use agents for CICO?	Use of exclusive agents	Who is excluded from being an agent (indiv. or institution types)	Pre-existing period of business requirement for agent	Can agents charge clients additional fees (i.e. fees to the agent)?	Caps on account balance or transactions (see Table 2 for detail cap information)	
Bangladesh (39%) (541.35) (6.85)	Yes	Only if partner with commercial bank	Super agent ⁷ allowed; Retail agent: required	Loan defaulters; convicts	Not specified	No, bank shall pay a reasonable fee/commission to agents	Yes, on transactions; differ by acct. type and transaction type	Two factor identification: PIN/Biometric scan for all transactions
India (44%) (NA) (19.70)	Yes	Only on behalf of a bank	Allowed	Non-Bank Financial Institutions (2010), restrictions removed 2014		Not specified	Yes, on transfer	PIN for all trans- actions, "officially valid document" or simplified norms for "small accounts" when opening an account
Indonesia (47%) (NA) (53.31)	Yes	Only business with remitter's license for CO	Required for bank agents	Not specified	At least two years old for small banks and MNO agents	No	Yes, on transactions and account balance	Gov't issued ID, driver's license or passport when opening an account
Kenya (78%) (519.54)	Yes	Yes	Prohibited	Faith-based, NGOs, NPOs, educational institutions; foreign	Continuous business permit at least 18 months	No	Yes. E-Money: transaction limit, monthly load limit	Two factor identification: IDs, PINs, passwords, ATM, secret

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⁴ Adoption data are from the 2017 Brookings Financial and Digital Inclusion Project Report (Lewis et al, 2017)

⁵ Mobile money agent outlets and ATMS per 100,000 adults data are from the IMF Financial Access Survey (International Monetary Fund, 2018)

⁶ Customer identification requirements include regulations related to Know Your Customer (KYC)/Customer Due Diligence (CDD) and Anti-Money Laundering (AML)/Combating the Financing of Terrorism (CFT) regulations. These regulations are intended to prevent criminal activity such as money laundering, fraud, or funding terrorism (Evans & Pirchio 2014)

⁷ Super agents are responsible for managing and controlling subagents

⁸ Two factor authentication required for all mobile banking transactions involving debits. Simplified norms only for small accounts, otherwise complete KYC compliance required.

(9.81)				exchange bureaus	before application			codes/messages for all transactions
Nigeria (53%) (20.82) (16.20)	Yes	Yes	Prohibited	Faith-based, NPOs, NGOs, educational institutions, currency exchanges	At least 1 year for both agents and super agents ⁹	No	Limit on account balance and daily transactions differ by acct. type	IDs when opening an account, PINS, passwords, payment card, secret code or secret message for all transactions
Pakistan (36%) (245.26) (8.77)	Yes	Only if with Financial inst.	Allowed	Not specified	Super agent needs to be well- established	No, fees are decided by Fls; agents share revenue with Fls	Yes, on transfer and account balance	ID, mobile number, purpose of transactions ¹⁰
Tanzania (42%) (917.62) (6.00)	Yes	Yes	Prohibited	Those without other business activities ¹¹	At least two years before application	No	Yes, on transfer and account balance	ID and mobile number for non- bank personal account CICO ¹²
Uganda (58%) (526.65) (4.44)	Yes	Only if partner with Financial inst.	Prohibited	Not a business or without physical address	Not specified	No, agents earn commission from providers	Yes, provider required to set limits on frequency and volume	ID and PIN for transactions

References: Bangladesh Bank, 2015; Bangladesh Bank, 2013; Bank Indonesia, 2009; Bank of Tanzania, 2015; Bank of Tanzania, 2014; Bank of Tanzania, 2007; Bank of Uganda, 2013; Central Bank of Kenya, 2013a; Central Bank of Kenya, 2013b; Central Bank of Kenya, 2010; Central Bank of Nigeria, 2015; Central Bank of Nigeria, 2014; Central Bank of Nigeria, 2013; CGAP, 2010a; Hidayati, 2012; Indonesia Financial Services Authority, 2014; KPMG Indonesia, 2015; Macmillian et al, 2016; Reserve Bank of India, 2016; Reserve Bank of India, 2014a; Reserve Bank of India, 2014b; Reserve Bank of India, 2010; Staschen, 2015; State Bank of Pakistan, 2016a; State Bank of Pakistan, 2016b; State Bank of Pakistan, 2016c; Telecom Regulatory Authority of India, 2016

Compression N

⁹ Super agents in Nigeria do not hold e-money at their platform, they monitor and manage their agent networks. Super agents and agents both required to be existing companies operational for at least 12 months prior to obtaining license. Agents need to be "well established".

¹⁰ In 2015, mobile operators were required to link mobile SIM card with customers' biometric data (fingerprints) and national ID. The Central Bank now allows customers with verified SIMs to open account remotely through their handsets. (The original plan used a biometric fingerprint scan at an agent to open the lowest level account, but compliance proved difficult due to high costs of fingerprint readers.)

¹¹ This is only for being a bank agent. MNOs' agents do not have to satisfy this requirement

¹² Bank agents in Tanzania are required to use two-factor authentication.

Of the 31 "directly relevant" articles that contain evidence of impact, 22 present empirical or anecdotal evidence but do not test for associations between regulations and impacts, and the remainder (9 articles) document predicted evidence. Articles that provide what we refer to as "anecdotal" evidence describe associations between a specific regulation in a specific country and a particular outcome (e.g., increased adoption of mobile wallets in India from less stringent Know Your Customer (KYC) requirements), but do not test these associations. Articles that provide estimates of predicted impacts describe potential impacts that a regulation may have on a country or population, but do not test or evaluate the potential impacts nor the assumptions behind their predictions.

Results

• The following sections summarize findings from the 31 "directly relevant" articles which contain evidence of impacts of regulations affecting CICO networks. We use information from 10 "indirectly relevant" articles detailing CICO regulatory requirements but not their impacts to provide additional context on the types of regulations affecting CICO networks. We first report evidence from two studies that review general impacts of CICO regulations in the Overall Impact of CICO Regulations section. The sections that follow are broken out by Business Channel Requirements, Agent Requirements, Restrictions on Fees and Charges, and Customer Identification Requirements, which follow the categories of regulations identified in our background review of regulations affecting CICO networks in eight countries.

Overall Impact of CICO Regulations

Two studies (Asian Development Bank, 2017; Evans & Pirchio, 2015) report generally on impacts of regulations affecting CICO networks, as opposed to discussing specific types of regulations. In the first report, the Asian Development Bank (ADB) studies and quantifies the role digital finance can play in accelerating financial inclusion—including through expanding CICO networks—in Indonesia, the Philippines, Cambodia, and Myanmar (2017). Findings are derived from more than 80 interviews with stakeholders in each country, supported by extensive secondary research and economic analysis. The study recommends specific regulatory measures to support digital finance and enable financial inclusion, including real-time KYC, digitization of the credit process, and digitally enabled agents and applications. The ADB then calculates the estimated impact of their recommended regulatory measures in each country, looking at predicted increases in electronic payment flows, additional credit uptake, savings mobilization, GDP, and incomes for populations earning less than \$3 per day. Predicted impacts vary by country, with for example a predicted \$2 billion increase in electronic payment flows in Cambodia compared to \$7 billion in the Philippines and \$50 billion in Indonesia. The report does not distinguish impacts for suggested regulatory measures that would specifically affect CICO networks. The study does discuss impacts of specific existing regulations, however, and these impacts are included in the Business Channel Requirements, Agent Requirements, Account Restrictions, and Identification Requirements sections below.

In the second report, Evans & Pirchio (2015) identify 22 developing countries (14 in Africa, 5 in Asia, and 3 in Latin America) in which mobile money schemes have been attempted and evaluate whether mobile money has succeeded or failed in each country. The study considers the transfer of electronic money and CICO services via agents as relevant mobile money platforms. The authors analyze information on the percent of adults with a mobile money account, the percent of adults that have used their mobile money account recently, the percent of adults that have used mobile money through an agent or through a separate, non-mobile money account, and the proportion of mobile money transactions per GDP. Based on these measures, the authors categorize each country into one of four classifications: mobile money ignited with explosive growth (Bangladesh, Cote d'Ivoire, Kenya, Rwanda, Somaliland, Tanzania, Uganda, and Zimbabwe); mobile money ignited with slow

growth (Ghana, Pakistan, and the Philippines); mobile money failed (Burkina Faso, Haiti, India, Indonesia, Madagascar, Mexico, Nigeria, and South Africa); and too early or not enough data available to determine the growth of mobile money (Democratic Republic of Congo, Paraguay, and Sri Lanka).

Evans & Pirchio (2015) then explore each country's market structure, products offered, and the regulatory framework to evaluate characteristics that may contribute to a successful or failed mobile money market. Of these qualitative characteristics, the authors find that regulatory frameworks are the most important factor contributing to the success or failure of mobile money in each country. They consider whether specific mobile money regulations exist, whether non-banks can issue mobile money, and whether there are KYC requirements in each country. The authors define "heavy regulatory environments" as regulatory frameworks that require banks to play a central role in mobile money, have burdensome KYC requirements, and place restrictions on agents. Restrictions on agents are the primary type of regulation included in the review that affects CICO networks: countries that have failed to ignite mobile money markets typically have restrictions on who can operate as an agent (through restrictions on whether banks or non-banks can contract services out to agents), restricting mobile money companies' ability to bring a critical mass of agents on board (Evans & Pirchio, 2015).

The report concludes that these heavy regulatory environments generally contribute to failed mobile money schemes (Evans & Pirchio, 2015). Of the eight countries that experienced explosive mobile money growth, seven have light regulatory environments with minimal limitations and restrictions on mobile money and allow non-banks to issue mobile money. The only country that has a heavy regulatory environment but still experienced explosive mobile money growth is Bangladesh, which requires mobile financial services to be bankled. Evans & Pirchio (2015) attribute the growth in Bangladesh to a large network of bank agents who customers use primarily for paying bills. But in spite of the success of mobile money in Bangladesh, the report still concludes that almost all countries with heavy regulations and specific mandates for bank-led mobile money models have failed to ignite the mobile money market. The authors do not, however, test for associations between regulatory characteristics and mobile money outcomes.

Business Channel Requirements

Business channel requirements are regulations that specify the institutions that may provide financial services, including CICO services. These regulations are indirectly connected to CICO networks in that they may affect the growth or spread of mobile money networks, or branchless banking, and through this impact the growth of CICO networks. We found 27 documents (out of 41) that discuss regulations or regulatory impacts pertaining to business channel requirements.

Five reports discuss regulations affecting liability for the provision of financial services. In Brazil, India, Kenya, and South Africa, banks are fully liable for agents who deliver financial services (Akhter & Khalily, 2017; Tarazi & Breloff, 2010; Prochaska & Brix, 2006; Lyman, Ivatury, & Staschen, 2006). Tazari & Breloff (2010) note that in Kenya, MNOs such as Safaricom are not liable for the actions of agents, though banks with CICO access points are liable for their agents. In Tanzania, Nigeria, and Liberia banks are responsible for overseeing all non-bank mobile money services and are responsible for approving non-bank entities before they can provide mobile money services (Makulilo, 2015). None of these studies report on the impacts of these regulations.

Fourteen documents discuss regulations targeting the ability of non-banks and MNOs to provide financial and CICO services. A 2016 regulation in Myanmar allowed MNOs and non-banks to offer DFS without limitations or a requirement to partner with banks, however Myanmar is unique in this regard (Asian Development Bank, 2017). In Bangladesh, Pakistan, India, and Tanzania, MNOs are required to partner with banks in order to deliver mobile money services, including CICO services (Makulilo, 2015; di Castri & Gidvani, 2014; Sultana, 2014; CGAP, 2010c). The European Investment Bank (2014) states that in Mozambique there is no partnership requirement,

however MNOs are required to register as a non-bank financial institution in order to deliver DFS. Similarly, in Indonesia MNOs are required to obtain a remitter license in order to provide cash-out services (Bourreau & Valetti, 2015; Hidayati, 2011; CGAP, 2010a). Mohammad (2015) also notes that in Indonesia MNOs can only partner with registered entities for the provision of DFS, including CICO services. MNOs are prohibited from providing cash-out services in Bangladesh (Parvez, Islam & Woodard, 2015). Lyman, Ivatury, & Staschen (2006) state that in South Africa, non-banks are restricted from issuing e-money. While non-banks are permitted to issue e-money in Kenya and Indonesia, in Kenya MNOs are required to store e-money deposits in a financial institution (Gupta, 2016), and in Indonesia non-banks are required to have a minimum of two years of business experience in order to issue e-money (USAID, 2015).

Of the 31 documents with evidence of impacts of regulations, six documents provide evidence or regulatory impacts pertaining to business channel requirements. These regulations target both bank networks and non-bank financial services such as MNOs and other e-money providers. Four studies report on the negative impacts of these business channel requirement regulations, providing anecdotal evidence from Indonesia (Asian Development Bank, 2017), Bangladesh (Parvez, Islam, & Woodard, 2015), Cameroon (European Investment Bank, 2014), the Central African Republic (*ibid.*), and India (Sultana, 2014). These studies find that regulations which limit the ability of MNOs to provide DFS reduce the products and services available to customers (including CICO services), negatively impact financial inclusion, and limit growth of the market as a whole.

Similarly, four studies provide anecdotal evidence from Myanmar (Asian Development Bank, 2017), Sri Lanka (Sultana, 2014), Pakistan (Sultana, 2014), and the Philippines (Di Castri, 2013) on the positive impacts of allowing MNOs to provide mobile money services with fewer restrictions. These positive impacts include: extending services to unbanked populations; larger markets; and improved cost, quality, and variety of services, including CICO services. Two studies note that the majority of the fastest growing mobile money markets in the world are in countries that allow MNO deployments, with mobile money accounts surpassing bank accounts in Kenya, Madagascar, Tanzania, and Uganda (Sultana, 2014; Di Castri, 2013). Additionally, Di Castri (2013) describes that in the Philippines, the central bank released regulation that allowed MNOs to compete with banks to deliver mobile money services, and that "competition [to banks] from MNO-based remittances has not only enriched the variety of services available, it has also been an important driver in lowering the price of remittances" (p. 14).

Agent Requirements

Agent requirements are regulations that govern the entities which interact directly with customers and provide CICO services, and includes regulations that specify what institutions can have agents and who can be an agent. These requirements are directly connected to CICO networks as these agents are often directly responsible for providing CICO services. We found 35 documents (out of 41) that describe regulations related to agent requirements, including 26 discussing regulatory impacts. Of these 26 documents, 3 provide predictive evidence of impact and 23 provide anecdotal evidence of impact.

In many countries, including Brazil, Bangladesh, Pakistan, India, Sri Lanka, Cameroon, Nigeria, Benin, Mozambique, Senegal, Zambia, Mexico, South Africa, Indonesia, and Liberia, banks are permitted to use agents for CICO services (Akhter & Khalily, 2017; Gupta, 2016; Makulilo, 2015; Mohammad, 2015; Parvez, Islam, & Woodard, 2015; USAID, 2015; Diniz et al., 2014; European Investment Bank, 2014; GIZ NABARD Rural Financial Institutions Programme, 2014; Sultana, 2014; Lyman, Ivatury, & Staschen, 2006). In Indonesia, the Laku Pandai regulations passed in 2014 specifically allow banks to use agents for branchless banking services (Asian Development Bank, 2017). In contrast, the Bank of Uganda Mobile Money Guidelines 2013 states that Ugandan banks are prohibited from using agent networks for CICO services, except through official partnerships with MNOs (Makulilo, 2015; European Investment Bank 2014).

In addition to banks using (or being prohibited from using) agents for CICO services, many countries allow non-banks to use agents for CICO services, including Indonesia, Kenya, the Philippines, Tanzania, Benin, Cameroon, Mozambique, Nigeria, Senegal, Uganda, Zambia, Liberia, Sri Lanka, and Sudan (Gupta, 2016; Borreau & Valetti, 2015; Evans & Pirchio, 2015; Karrar & Rahman, 2015; Makulilo, 2015; Muthiora, 2015; di CaStri & Gidvani, 2014; European Investment Bank, 2014; Sultana, 2014; Maurer, 2013; Alampay, 2010; Duncombe, 2012; CGAP, 2010b; Lyman, Ivatury, & Staschen, 2006). However, Cambodia prohibits non-banks from using agents (Asian Development Bank, 2017).

Regulations in India, Tanzania, Indonesia, Uganda, Brazil, and Pakistan limit who can be an agent, often based on the host organization's size (e.g., how many outlets a company has) and type (e.g., only postal offices can operate as agents) (Muthoria, 2015; di Castri et al, 2014; European Investment Bank, 2014; Jayo et al., 2012; CGAP, 2010c; Prochaska, 2008; Lyman, Ivatury, & Staschen, 2006).

Many countries have minimum requirements for e-float or cash holdings including Kenya, Indonesia, Bangladesh, Sri Lanka, Afghanistan, the Philippines, Cambodia, Malaysia, Pakistan, Tanzania, and India (Claessens et al., 2016; Parvez et al., 2015; di Castri 2013; Stapleton, 2013; CGAP, 2010a; CGAP, 2010c; Jansen, 2010; Tarazi & Breloff 2010). Most often these cash holding requirements are proportionately based on the total amount of money held in deposit, however in Tanzania constant, minimum thresholds are specified in the regulation (di Castri & Gidvani 2014).

• Nine reports present anecdotal evidence on the impacts of agent requirements on CICO networks. Two studies in Indonesia (Claessens, 2016; Mohammad, 2015) report that regulations limiting the type of agent (i.e., registered vs. unregistered entities) have a negative impact on the number of agents operating in low-income and rural communities, as well as the number of mobile money users. Two additional studies in Indonesia (Di Castri, 2013; Hidayati, 2011) report that regulations limiting the type of services agents can provide (i.e., cash-in vs. cash-out) discourage smaller agents from entering the market and have a negative impact on the number of mobile money users and transactions. Two studies from the Philippines (Asian Development Bank 2017; Di Castri, 2013) report anecdotal evidence that regulations limiting the number of agents have limited the growth of the mobile money market. One study in Brazil (Diniz, 2014) reports that regulations allowing a variety of retail outlets to act as agents drastically increased the number of mobile banking points from fewer than 15,000 in 2000 to over 150,000 in 2010. CGAP reports (2010a) that Bank Indonesia intended to promote the use of formal remittance channels with a new regulation, but unintentionally hindered the development of these channels by requiring that agents be licensed as money remitters.

Several studies report anecdotal evidence on agent interoperability ¹³. Agent interoperability determines whether agents exclusively provide CICO services for a single MNO or bank, or whether agents can provide CICO services for multiple platforms (Bourreau & Valetti, 2015). In Kenya and India, banks are prohibited from establishing exclusive contracts with agents (Gupta, 2016; Kulkarni, 2015; Muthiora, 2015; Klein & Mayer, 2011; CGAP, 2010b). One study reports that regulations prohibiting agent exclusivity in Tanzania incentivized three leading MNOs to establish an interoperability agreement in June 2014 (Bourreau & Valetti, 2015). This agreement allows customers to send and receive mobile money through any of the MNOs involved in the

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¹³ Additional studies report anecdotal evidence on platform interoperability. Platform interoperability refers to the interoperability between mobile money platforms from different financial service providers. In Ghana and Tanzania, interoperability between mobile money platforms is mandated (Di Castri, 2014; Di Castri, 2013). The Asian Development Bank (2017) reports that in Indonesia, the three largest MNOs developed the first interoperability agreement of its kind in 2013 which has allowed customers to transact with others across networks. The report also finds that in Bangladesh, the B-Kash mobile money network reached 11 million accounts in two and a half years due to network interoperability. Finally, the ADB finds that in the Philippines, the lack of MNO interoperability has limited the growth of emoney use.

agreement (*Ibid.*). Two studies (Gupta, 2016; Muthiora, 2014) predict that 2011 and 2014 regulations prohibiting agent exclusivity in Kenya may begin to promote interoperability. Bourreau & Valetti (2015) anecdotally report that Safaricom allowed a rival service to use its agent network in anticipation of the 2011 and 2014 regulations.

Jansen (2010) observes that banks in Kenya face additional rules that regulate the bank-agent relationship from the 2010 Banking Agent Guidelines issued by the Central Bank of Kenya, while MNOagent relationships remain comparatively unregulated. For example, banks must choose agents from a specific list of registered businesses that have been operating for at least two years, and then the Central Bank of Kenya must approve each agent. Additionally, banks must participate in a shared agent network and cannot establish exclusive agent contracts. Comparing this with M-PESA's experience, to become an agent businesses must submit an initial deposit of USD\$1,300, provide a bank statement with six months of cash flow, and sign an exclusive contract; however these actions are company protocol and not mandated by government regulations. Jansen reports that banks may have access to a higher quality pool of agents as a result of the Guidelines, but that the requirements may limit their ability to develop a stable agent network that can compete with M-PESA. These Banking Agent Guidelines were designed to emulate the bank-led Brazilian branchless banking system and allow banks to use agents for CICO services—just as M-PESA uses agents. Jansen reports that Brazil established their branchless banking model in 2003 when banks only had branches in 1,500 of country's 5,500 municipalities. By 2010, a system of 80,000 agents with POS terminals were active in all 5,500 municipalities. This agent system created an estimated seven million new customer accounts in Brazil. Jansen predicts but does not test whether this model of branchless banking will succeed in Kenya. Since Safaricom dominates the mobile money market, the behavior of Safaricom will have a large role in whether banks can successfully operate in the mobile money market. Safaricom can refuse to share their agent network, or cooperate with banks for agent interoperability, with more positive predicted impacts on the number of new customers accessing financial services if Safaricom shares their agent network with banks.

Restrictions on Fees & Charges

Requirements on fees and charges include regulations related to caps on transactions, caps on account balances, fees for CICO services, and taxes on CICO services. These regulations may either be directly or indirectly connected to CICO networks. Regulations which involve fees or taxes for CICO services directly affect CICO networks. However, regulations pertaining to mobile money networks or branchless banking, including fees for these services or caps on account balances, indirectly affect CICO networks. Of the 41 documents reviewed, we identified 26 documents that discuss regulations related to fees and charges.

Many countries prohibit agents from charging fees for services (including but not limited to CICO services) additional to those charged by the financial service provider, including in Kenya, India, Indonesia, and Bangladesh (Parvez et al., 2015; GIZ NABARD Rural Financial Institutions Programme, 2014; CGAP, 2010a; CGAP, 2010b; Prochaska & Brix, 2008), while in Pakistan agents can charge fees if these are first approved by a bank (CGAP, 2010c). Agents may receive commission in Bangladesh (Parvez et. al, 2015) and India (GIZ NABARD Rural Financial Institutions Programme, 2014).

Several countries allow banks, MNOs, or non-bank financial institutions to charge fees for CICO services, including Nigeria (Adam & Awoyemi, 2014), Kenya (European Investment Bank, 2014; Jansen, 2010), Uganda (Duncombe, 2012), and the Philippines (Alampay, 2010). In addition, some countries including Cambodia, the Philippines, Kenya, and Indonesia allow banks and MNOs to charge interbank and inter-entity fees for transfers

(Asian Development Bank, 2017). We also found evidence of one tax on CICO services; in 2013, a 10 percent excise duty on money transfer services, including CICO, was introduced in Kenya (Muthiora, 2013).

Caps on transactions, including on the amount and frequency of CICO transactions, exist in Bangladesh, the Democratic Republic of Congo, India, Indonesia, Kenya, Peru, the Philippines, South Africa, Nigeria, Namibia, Pakistan, and Sri Lanka (Akhter & Khalily, 2017; Bangladesh Business News, 2017; Claessens & Rojas, 2016; Gupta, 2016; Kathuria, 2016; Muthiora, 2015; USAID, 2015; Oluwafemi & Ola, 2014; Sultana, 2014; Di Castri, 2013; CGAP, 2010a; Lyman, Ivatury, & Staschen, 2006). Three studies state that these caps are mandated by a regulation or set by the Central Bank, as in Bangladesh, the Philippines, and India (Bangladesh Business News, 2017; Lyman, Ivatury, & Staschen, 2006), while the others do not make clear whether the caps are set by regulations or determined by the financial service provider. Additionally, we found evidence that caps on account balance amounts exist in Brazil, Cote D'Ivoire, India, Kenya, Peru, Indonesia, and the Philippines (Claessens & Rojas, 2016; Pareek & Raman, 2016; Muthiora, 2015; USAID, 2015; Evans & Pirchio, 2014; CGAP, 2010b; Lyman, Ivatury, & Staschen, 2006). One study (Lyman, Ivatury, & Staschen, 2006) states that caps on account balance amounts in the Philippines are set by the Central Bank; the other studies do not make clear who sets the cap.

Five (out of 31) documents provide anecdotal evidence of impacts of regulations related to fees and charges. One study (Asian Development Bank, 2017) suggests that interoperability has been constrained in several countries including Cambodia, the Philippines, Indonesia, and Kenya because interbank and inter-entity transfers are still discouraged, in part due to fees. One study (Das, 2014) reports that ATM usage grew dramatically in India between 2009 and 2014 due to regulations that made all third-party ATM transactions free. Two studies (Muthiora, 2014; Di Castri & Gidbani, 2014) describe anecdotal evidence of the impact of taxes on mobile money transactions. Muthiora (2014) describes how the 10% excise duty on money transfer services in Kenya has resulted in higher transaction costs to customers, and suggests that low-income communities may choose informal ways of transferring money in response to the rising costs of basic transactions. Di Castri & Gidvani (2014) state that taxes on mobile money transfers in Tanzania threaten uptake and usage. Finally, in Indonesia a USAID study (2015) provides anecdotal evidence that caps on account balances have had a negative impact on the use of mobile banking for certain services (e.g., loan disbursements, collections).

Customer Identification Requirements

• Customer identification requirements include regulations related to Know Your Customer (KYC)/Customer Due Diligence (CDD) and Anti-Money Laundering (AML)/Combating the Financing of Terrorism (CFT) requirements. These regulations are intended to prevent criminal activity such as money laundering, fraud, or funding terrorism (Evans & Pirchio 2014). Banks and agents conduct identification processes through actions such as obtaining formal customer identification, verifying customer identity, and assessing the risk of customers. Strict identification requirements could limit the ability of low-income customers to use mobile money and agent-based CICO services (di Castri, 2015). Of the 41 documents reviewed, we identified 30 documents that discuss regulations related to identification requirements. Of the 30 documents, 17 simply state the existence of identification requirements for financial services or the existence of KYC/CDD and AML/CFT regulations in low- and middle-income countries (Bangladesh Business News 2017; Akhter & Khalily, 2017; Claessens, 2016; Gupta, 2016; Kemal, 2015; Muthoria, 2015; Adam, 2014; di CaStri, 2014; European Investment Bank, 2014; Maurer, 2013; Duncome, 2012; Oluwafemi & Ola, 2012; Alampay, 2010; CGAP, 2010a; CGAP, 2010b; CGAP 2010c; Jansen, 2010).

• The Financial Action Task Force (FATF), an organization which sets international AML/CFT standards, encouraged a risk-based approach to AML/CFT requirements in their 2012 recommendations to help pursue financial inclusion (Basel Committee on Banking Supervision, 2015). We found evidence that many countries have simplified identification requirements associated with low-value accounts. These countries include Pakistan, Sri Lanka, Indonesia, South Africa, Brazil, India, Kenya, Tanzania, Mexico, Peru, and Fiji (Asian Development Bank, 2017; Kathuria, 2016; USAID, 2015; Sultana, 2014; Di Castri, 2013; Lyman, Ivatury, & Staschen, 2006). While in many countries some form of identification is still required for account opening, in India, Fiji, Tanzania (Di Castri, 2013; Lyman, Ivatury, & Staschen, 2006) some banks allow customers to provide alternatives to formal identification to verify their identity, such as a letter from a public official. In India (Kathuria, 2016) there are no KYC/CDD requirements for e-wallets up to INR 10,000 (USD\$150). In some countries, including Kenya, the Philippines, and Bangladesh, regulations allow for agents to conduct KYC/CDD and AML/CFT procedures (Parvez, Islam, & Woodard, 2015; Klein & Mayer, 2011; Prochaska & Brix, 2008). However, in Bangladesh banks are still accountable for ensuring compliance (Sultana, 2014).

Four studies report anecdotal evidence that regulations allowing for modified identification led to an easier process for opening new mobile money accounts, increased financial inclusion, and larger adoption of mobile money in India (Kathuria, 2016; GIZ NABARD Rural Financial Institutions Programme, 2014; Sultana, 2014), Sri Lanka (Sultana, 2014; Di Castri, 2013), and Pakistan (Di Castri, 2013). Additionally, four studies report anecdotal evidence that strict identification requirements led to the exclusion of marginalized populations—such as low-income or migrant workers—from the market, and negatively impacted market growth in many African countries (Makulilo, 2015) including South Africa (Lyman, Ivatury, & Staschen, 2006) as well as in Indonesia (Stapleton, 2013) and the Philippines (Prochaska, 2008).

Discussion

Many low- and middle-income countries have introduced regulations that affect CICO networks. However, systematic evidence of the impacts of these regulations is limited. While we found anecdotal reports of empirical impacts, we did not identify any studies formally testing the impacts of regulations affecting CICO networks. Of the anecdotal evidence we identified, some studies report that "heavy" regulatory environments can constrain the growth of mobile money networks (Evans & Pirchio, 2015). For example, regulations that prohibit or limit MNOs from providing mobile money services can have a negative impact on the CICO services available to unbanked populations (Parvez, Islam, & Woodard, 2015; European Investment Bank, 2014; Sultana, 2014). Further anecdotal evidence suggests that regulations on agents, such as those which limit the type of agent or services agents can provide, can reduce the number of agents in rural or low-income communities (Claessens, 2016; Mohammad, 2015; Di Castri, 2013; Hidayati, 2011). The interoperability of mobile money technology and agent networks can also impact the use of CICO services. Anecdotal evidence suggests that greater interoperability can lead to more customers using mobile money services (Asian Development Bank, 2017).

Regulations that directly involve customers, such as regulations on fees and identification requirements, may limit the ability of rural or low-income populations to participate in mobile money networks. Fees to open or maintain bank accounts can be prohibitive for low-income individuals (European Investment Bank, 2014). Additionally, many unbanked individuals are unable to provide appropriate identification to meet KYC/AML requirements (Makulilo, 2015; Stapleton 2013; Prochaska, 2008; Lyman, Ivatury, & Staschen, 2006). Relaxing identification and fee requirements, or creating alternative accounts such as basic savings accounts with fewer restrictions, may increase the number of rural and low-income individuals who can participate in formal banking networks (Asian Development Bank, 2017; Kathuria, 2016; di Castri & Gidvani 2015; GIZ, 2014; Sultana, 2014; Di Castri, 2013), though this has not been demonstrated empirically.

Two studies describe government-sponsored programs that, though not regulations, indicate government support for mobile banking and could promote expanded CICO access. A report by the ADB (2017) discusses the TabunganKu basic savings account initiatives from the central bank of Indonesia, which aims to increase the number of customers using mobile money and branchless banking services. Twelve million TabungaKu mobile savings accounts were opened between 2010 and 2014. Another study (Kemal & Yan, 2015) describes government-to-person (G2P) payments by the Pakistani government that used mobile banking and agents to deliver cash to transfer recipients. To the extent these government policies expand mobile banking networks, they would also expand the associated CICO networks that facilitate the operation of mobile banking.

Literature describing the regulatory environment of CICO networks also provides many suggestions for improving regulations. Stapleton (2013) argues that regulators should find a compromise between strengthening regulations for security and solvency of banking networks, while also easing some regulations to increase access to financial services (Pareek & Raman, 2016; Di Castri & Gidvani, 2015; Sultana, 2014; Lyman et al., 2006). Makulilo (2015) argues that direct communication between regulators, banks, and MNOs regarding any new regulations will help identify cost-effective ways to implement monitoring and reporting processes. The Asian Development Bank (ADB) (2017) recommends that regulators should focus on easing supply-side regulatory barriers that limit the availability of financial services. The ADB concludes that CICO networks could expand if regulators allow businesses to test new ideas, including allowing both collaboration and competition between banks and MNOs.

References

- Adam, A. & Awoyemi, O. (2014). Cash-less Economy Policy and Remote-on-US' ATM Transaction Fee in Nigeria.

 Retrieved 10 November 2017 from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2528608
- Adrianaivo, M. & Kpodar, K. (2011). ICT, Financial Inclusion, and Growth: Evidence from African Countries. International Monetary Fund, Working Paper. Retrieved 20 November 2017 from http://2fwww.gsmworld.com/mobilefordevelopment/wp-content/uploads/2012/06/imfworkingpaperictfinancialinclusion.pdf
- Akhter, N. & Khalily, B. (2017). Impact of Mobile Financial Services on Financial Inclusion in Bangladesh. Institute for Inclusive Finance and Development (InM), Working Paper Number 52. Retrieved 10 November 2017 from http://inm.org.bd/papers/impact-of-mobile-financial-services-on-financial-inclusion-in-bangladesh/
- Alampay, E. (2010). Mobile Banking, Mobile Money and Telecommunication Regulations. LIRNEasia. Retrieved 10 November 2017 from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1618166
- Alliance for Financial Inclusion (2017). Digital Financial Services Basic Terminology. Retrieved 14 November 2017 from https://www.afi-global.org/sites/default/files/publications/2016-08/Guideline%20Note-19%20DFS-Terminology.pdf
- Asian Development Bank (2017). Accelerating Financial Inclusion in Southeast Asia with Digital Finance. Retrieved 10 November 2017 from https://www.adb.org/sites/default/files/publication/222061/financial-inclusion-se-asia.pdf
- Bangladesh Bank (2013). Guidelines on Agent Banking for the Banks. Retrieved 11 August 2017 from https://www.bb.org.bd/aboutus/regulationguideline/psd/agentbanking_banks_v13.pdf

- Bangladesh Bank (2015). Regulatory Guidelines for Mobile Financial Services (MFS) in Bangladesh. Retrieved 11 August 2017 from https://www.bb.org.bd/aboutus/draftguinotification/guideline/mfs_final_v9.pdf
- Bangladesh Business News (2017). Bangladesh Tightens Mobile Banking to Check Illegal Transactions. Retrieved 10 November 2017 from https://businessnews-bd.net/
- Bank Indonesia (2009). Bank Indonesia Regulation Number: 11/12/PBI/2009 Concerning Electronic Money. Retrieved 11 August 2017 from http://www.bi.go.id/en/peraturan/sistem-pembayaran/Documents/090608%20-%20PBI%20%2011-12%20Uang%20Elektronik%20(English).pdf
- Bank of Tanzania (2015). The Payment Systems (Electronic Money) Regulations 2015. Retrieved 11 August 2017 from http://www.bot.go.tz/PaymentSystem/GN-THE%20ELECTRONIC%20MONEY%20REGULATIONS%202015.pdf
- Bank of Tanzania (2013). Guidelines on Agent Banking for Banking Institutions, 2013. Retrieved 11 August 2017 from http://www.bot.go.tz/BankingSupervision/GUIDELINES%20ON%20AGENT%20BANKING%20FOR%20BANKING%20FOR%20BANKING%20FOR%20BANKING%20FOR%20BANKING%20INSTITUTIONS%202013.pdf
- Bank of Tanzania (2007). Electronic Payment Schemes Guidelines. Retrieved 11 August 2017 from http://www.bot.go.tz/PaymentSystem/Docs/e_Schemes%20Guidelines%20June%202007.pdf
- Bank of Uganda (2013). Mobile Money Guidelines, 2013. Retrieved 11 August 2017 from https://www.bou.or.ug/bou/bou-downloads/Financial_Inclusion/Mobile-Money-Guidelines-2013.pdf
- Basel Committee on Banking Supervision (2015). Range of Practice in the Regulation and Supervision of Institutions Relevant to Financial Inclusion. Retrieved 10 November 2017 from https://www.bis.org/bcbs/publ/d310.pdf
- Beck, T., Demirgüç-Kunt, A., & Martinez Peria, M. (2007). Reaching Out: Access to and Use of Banking Services across Countries. Journal of Financial Economics, 85(2), 234-266.
- Bourreau, M. & Valetti, T. (2015). Competition and Interoperability in Mobile Money Platform Markets: What Works and What Doesn't? Digiworld Economic Journal, 99(3), 11-32.
- Central Bank of Kenya (2010). Guidelines on Agent Banking. Retrieved 11 August 2017 from http://www.bu.edu/bucflp/files/2012/01/Guideline-on-Agent-Banking-CBKPG15.pdf
- Central Bank of Kenya (2013a). E-Money Regulation. Retrieved 11 August 2017 from https://www.centralbank.go.ke/images/docs/NPS/Regulations%20and%20Guidelines/Regulations%20-%20E-%20Money%20regulations%202013.pdf
- Central Bank of Kenya (2013b). The National Payment System (NPS) Regulations. Retrieved 11 August 2017 from https://www.centralbank.go.ke/images/docs/NPS/npsdraftregulations.pdf
- Central Bank of Nigeria (2015). Guidelines on Mobile Money Services in Nigeria. Retrieved 11 August 2017 from http://www.cbn.gov.ng/Out/2015/BPSD/Guidelines%20on%20Mobile%20Money%20Services%20in%20Nigeria.pdf
- Central Bank of Nigeria (2013). Guidelines for the Regulation of Agent Banking and Agent Banking Relationships in Nigeria. Retrieved 11 August 2017 from

- https://www.cbn.gov.ng/out/2013/ccd/guidelines%20for%20the%20regulation%20of%20agent%20banking%20and%20agent%20banking%20relationships%20in%20nigeria.pdf
- Central Bank of Nigeria (2014). Circular on Exposure Draft on the Framework for Licensing Super Agents.

 Retrieved 11 August 2017 from

 http://www.cbn.gov.ng/Out/2014/BPSD/Circular%20%20on%20exposure%20Draft%20on%20the%20Frame
 work%20for%20Licensing%20Super%20Agents.pdf
- Consultative Group to Assist the Poor (CGAP) (2008). Regulating Transformational Branchless Banking: Mobile Phones and Other Technology to Increase Access to Finance. Retrieved 10 November 2017 from https://www.cgap.org/sites/default/files/CGAP-Focus-Note-Regulating-Transformational-Branchless-Banking-Mobile-Phones-and-Other-Technology-to-Increase-Access-to-Finance-Jan-2008.pdf
- CGAP (2010a). Update on Regulation on Branchless Banking in Indonesia. Retrieved 10 November 2017 from https://www.cgap.org/sites/default/files/CGAP-Regulation-of-Branchless-Banking-in-Indonesia-Jan-2010.pdf
- CGAP (2010b). Update on Regulation on Branchless Banking in Kenya. Retrieved 10 November 2017 from https://www.cgap.org/sites/default/files/CGAP-Regulation-of-Branchless-Banking-in-Kenya-Jan-2010.pdf
- CGAP (2010c). Update on Regulation on Branchless Banking in Pakistan. Retrieved 10 November 2017 from https://www.cgap.org/sites/default/files/CGAP-Regulation-of-Branchless-Banking-in-Pakistan-Feb-2010.pdf
- Chaia, A., Dalal, A., Goland, T., Gonzalez, M. J., Morduch, J., & Schiff, R. (2009). Half the World is Unbanked: Financial Access Initiative Framing Note. McKinsey & Company. Retrieved 15 December 2017 from https://www.mckinsey.com/industries/social-sector/our-insights/half-the-world-is-unbanked
- Claessens, S. & Rojas-Suarez, L. (2016). Financial Regulations for Improving Financial Inclusion. Center for Global Development. Retrieved 10 November 2017 from https://www.cgdev.org/sites/default/files/CGD-financial-regulation-task-force-report-2016.pdf
- Das, A. (2014). The Art of Living for ATMs in India. Indian Institute of Technology Bombay. Retrieved 10 November 2017 from http://www.math.iitb.ac.in/~ashish/workshop/ATM%20Technical%20Report%202014.pdf
- Demirgüç-Kunt, A., Klapper, L., Singer, D., & van Oudheusden, P. (2015). The Global Findex Database 2014:

 Measuring Financial Inclusion around the World. World Bank Policy Research Working Group Paper

 #7255. Retrieved 10 November 2017 from

 http://documents.worldbank.org/curated/en/187761468179367706/pdf/WPS7255.pdf
- Di Castri, S., Grossman, J., & Sihin, R. (2015). Proportional Risk-Based AML/CFT Regimes for Mobile Money: A Framework for Assessing Risk Factors and Mitigation Measures. GSMA. Retrieved 23 August 2017 from https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2015/10/Proportional-risk-based-AMLCFT-regimes-for-mobile-money.pdf
- Di Castri, S. & Gidvani, L. (2014). Enabling Mobile Money Policies in Tanzania. GSMA. Retrieved 10 November 2017 from https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2014/03/Tanzania-Enabling-Mobile-Money-Policies.pdf

- Di Castri, S. (2013). Mobile Money: Enabling Regulatory Solutions. GSMA. Retrieved 10 November 2017 from https://www.gsma.com/publicpolicy/wp-content/uploads/2013/02/GSMA2013_Report_Mobile-Money-EnablingRegulatorySolutions.pdf
- Diniz, E., Jayo, M., Pozzebon, M., Lavoie, F., & Dos Santos Foguel, F. (2014). ICT Helping to Scale Up Microfinance: The Case of a Successful Bank-MFI Partnership in Brazil. Journal of Global Information Management, 22(1), 34-50.
- Dolan, J. (2009). Mobile Money Summit 2009: Accelerating the Development of Mobile Money Ecosystems. International Finance Corporation and the Harvard Kennedy School. Retrieved 15 December 2017 from https://sites.hks.harvard.edu/m-rcbg/CSRI/publications/report_39_mobile_money_january_09.pdf
- Duncombe, R. (2012). An Evidence-Based Framework for Assessing the Potential of Mobile Finance in Sub-Saharan Africa. The Journal of Modern African Studies, 50(3), 369-395.
- European Investment Bank (2014). Digital Financial Services in Africa: Beyond the Kenyan Success Story.

 Retrieved 10 November 2017 from

 http://www.eib.org/attachments/country/study_digital_financial_services_in_africa_en.pdf
- Evans, D. & Pirchio, A. (2015). An Empirical Examination of Why Mobile Money Schemes Ignite in Some Developing Counties but Flounder in Most. Coase-Sandor Working Group Paper Series in Law and Economics Number 723. Retrieved 20 October 2017 from http://chicagounbound.uchicago.edu/cgi/viewcontent.cgi?article=2413&context=law_and_economics
- GIZ NABARD Rural Financial Institutions Programme (2014). Mobile Banking by Business Correspondents in India—A Landscape Study. Retrieved 10 November 2017 from https://www2.giz.de/wbf/4tDx9kw63gma/M%20Banking%20Landscape%20Final%20Mail.pdf
- GSMA (2010). Mobile Money Definitions. Retrieved 20 November 2017 from https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2012/06/mobilemoneydefinitionsnomarks56.pdf
- GSMA (2015). State of the Industry 2014: Mobile Financial Services for the Unbanked. Retrieved 10 November 2017 from https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2015/03/SOTIR_2014.pdf
- Gupta, J. (2016). Financial Inclusion: A Global Comparative Study. Gujarat University. Management and Research Practices in Emerging Markets, 1-16.
- Gutierrez, E. & Singh, S. (2013). What Regulatory Frameworks are More Conducive to Mobile Banking? Empirical Evidence from Findex data. The World Bank Policy Research Working Paper Number 6652. Retrieved 10 November 2017 from http://documents.worldbank.org/curated/en/208411468151504563/pdf/WPS6652.pdf
- Hidayati, S. (2011). Cash-In and Cash-Out Agents for Mobile Money in Indonesia. Innovations: Technology, Governance, Globalization, 6(4), 117-123.
- Indonesia Financial Services Authority (2014). Branchless Banking for Financial Inclusion in Indonesia [PowerPoint slides]. Retrieved 11 August 2017 from file:///C:/Users/sweeney7/Downloads/BB-FOR-FIrev-english-221014-Endang-K-Tri-Subari.pdf

- Intermedia (2015). Financial Inclusion Insights Wave 3 Data-2015. Retrieved 11 August 2017 from http://finclusion.org/data_fiinder/
- International Monetary Fund (2018). Access to Macroeconomic & Financial Data: Financial Access Survey (FAS). IMF. Retrieved 11 June 2018 from http://data.imf.org/?sk=E5DCAB7E-A5CA-4892-A6EA-598B5463A34C&sId=1390030341854
- Ivatury, G. & Mas, I. (2008). The Early Experience with Branchless Banking. CGAP, Focus Note Number 46. Retrieved 28 August 2017 from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1655257
- Jansen, S. (2010). Managing the Risks of Mobile Money: The Banking Agent Reform in Kenya—A Scenario—Based Policy Analysis. Center for International Development at Harvard University Working Paper Number 45. Retrieved 15 December 2017 from http://web.archive.org/web/20170615185545/https://www.hks.harvard.edu/centers/cid/publications/fellow-graduate-student-working-papers/cid-research-fellow-and-graduate-student-working-paper-no.-45
- Jayo, M., Diniz, E.., Zambaldi, F., & Christopoulos, T. (2012). Groups of Services Delivered by Brazilian Branchless Banking and Respective Network Integration Models. Electronic Commerce Research Applications, 11(5), 504-517.
- Karrar, A. & Rahman, A. (2015). Mobile Network Operators' Needs in Collaborative Mobile Money Service Provision. ARPN Journal of Engineering and Applied Science, 10(23), 17843-17852.
- Kashuliza, A., Hella, P., Magayane, F., & Mvena, Z. (1998). The Role of Informal and Semi-Formal Finance in Poverty Alleviation in Tanzania: Results of a Field Study in Two regions. Research on Poverty Alleviation Research Report No 98.1. Retrieved 20 November 2017 from http://www.repoa.or.tz/documents_storage/publications/Research%20Report%2098%201%20with%20fin al%20corrections.pdf
- Kathuria, V. (2016). Payments Industry in India Q4 2016. IMAP. Retrieved 10 November 2017 from http://www.imap.com/Reports/Q4%202016%20Payments%20Industry%20in%20India.pdf
- Kemal, A. & Yan, L. (2015). Mobile Banking Adoption and Diffusion: Enabling and Constraining Social or Financial Inclusion Among Poor Women in Pakistan? European Conference on Information Systems 2015, Research Paper Number 96. Retrieved 10 November 2017 from http://aisel.aisnet.org/ecis2015_cr/96/
- Klein, M. & Mayer, C. (2011). Mobile Banking and Financial Inclusion: The Regulatory Lessons. The World Bank, Policy Research Working Paper Number 5664. Retrieved 10 November 2017 from http://documents.worldbank.org/curated/en/516511468161352996/pdf/WPS5664.pdf
- KPMG Indonesia (2015). New Indonesian 'Branchless Banking' and Microfinance Laws—A Catalyst for Microfinance Growth? Retrieved 11 August 2017 from https://assets.kpmg.com/content/dam/kpmg/pdf/2016/07/id-ksa-financial-inclusion-indonesia.pdf
- Kulkarni, A. (2015). Facilitating Interoperability in Digital Financial Services in India. CUTS International.

 Retrieved 10 November 2017 from http://www.cutsccier.org/pdf/Facilitating_Interoperability_in_Digital_Finance_Services%20_in_India.pdf
- Lewis, R., Villasenor, J., & West D. (2017). The 2017 Brookings Financial and Digital Inclusion Project Report: Building a Secure and Inclusive Global Financial Ecosystem. Center for Technological Innovation at

- Brookings. Retrieved 11 June 2018 from https://www.brookings.edu/wp-content/uploads/2017/08/fdip_20170831_project_report.pdf
- Lyman, T., Ivatury, G., & Staschen, S. (2006). Use of Agents in Branchless Banking for the Poor: Rewards, Risks, and Regulation. CGAP, Focus Note Number 38. Retrieved 10 November 2017 from https://www.cgap.org/sites/default/files/CGAP-Focus-Notes-Use-of-Agents-in-Branchless-Banking-for-the-Poor-Rewards-Risks-and-Regulation-Oct-2006.pdf
- Macmillan, R., Paelo, A., & Paremoer, T. (2016). The "Evolution" of Regulation in Uganda's Mobile Money Sector. The African Journal of Information and Communication, 17, 89-110.
- Makulilo, A. (2015). Privacy in Mobile Money: Central Banks in Africa and Their Regulatory Limits. International Journal of Law and Information Technology, 23(4), 372-391.
- Mas, I. (2011). Why are Banks so Scarce in Developing Countries? A Regulatory and Infrastructure Perspective. Critical Review, 23(1-2), 135-145.
- Mas, I. & Sullivan, N. (2012). Mobile Money as an Information Utility that Touches Everyone: Refining the Vision for Financial Inclusion. Innovations, 6(4), 17-25.
- Maurer, B., Nelms T., & Rea S. (2013). 'Bridges to Cash': Channeling Agency in Mobile Money. Journal of the Royal Anthropological Institute, 19(1), 52-74.
- Mohammad, G. (2015). Digital Financial Services in Indonesia—Findings from the Agent Network Accelerator Research. [PowerPoint slides]. Retrieved 10 November 2017 from https://www.itu.int/en/ITU-T/Workshops-and-Seminars/bsg/201510/Documents/Presentations/S5P5_Ghiyazuddin_Ali_Mohammad.pdf
- Muthiora, B. (2015). Enabling Mobile Money Policies in Kenya: Fostering a Digital Financial Revolution. GSMA. Retrieved 10 November 2017 from https://www.itu.int/en/ITU-T/focusgroups/dfs/Documents/2015_MMU_Enabling-Mobile-Money-Policies-in-Kenya.pdf
- Oluwafemi, O. & Ola, A. (2014). An Integrated Service Model for Improved Automatic Teller Machine Operation in Nigeria Banking System. International Journal of Applied Information Systems. 7(7), 37-44.
- Pareek, A. & Raman, P. (2016). Payments Banks—Can India Achieve Digital Financial Inclusion? Global Journal of Business Management, 10(1), 69-78.
- Parvez, J., Islam, A., & Woodard, J. (2015). Mobile Financial Services In Bangladesh. USAID. Retrieved 10 November 2017 from https://microlinks.org/sites/default/files/resource/files/MFSinBangladesh_April2015.pdf
- Pénicaud, C. & Katakam, A. (2013). State of the Industry 2013: Mobile Financial Services for the Unbanked. GSMA. Retrieved 20 October 2017 from http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2014/02/SOTIR_2013.pdf
- Prochaska, K. & Brix, L. (2008). Regulating Transformational Branchless Banking: Dispatches From the Policy Frontlines. Enterprise Development & Microfinance, 19(1), 31-45.

- Radcliffe, D. & Voorhies, R. (2012). A Digital Pathway to Financial Inclusion. The Bill & Melinda Gates Foundation. Retrieved 1 December 2017 from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2186926
- Reserve Bank of India (2010). Financial Inclusion by Extension of Banking Services—Use of Business Correspondents. Retrieved 11 August 2017 from https://www.rbi.org.in/scripts/NotificationUser.aspx?Id=6017&Mode=0
- Reserve Bank of India (2012). Financial Inclusion by Extension of Banking Services—Use of Business Correspondents. Retrieved 11 August 2017 from https://www.rbi.org.in/scripts/NotificationUser.aspx?Id=7038&Mode=0
- Reserve Bank of India (2014). Financial Inclusion by Extension of Banking Services—Use of Business Correspondents. Retrieved 11 August 2017 from https://www.rbi.org.in/scripts/BS_CircularIndexDisplay.aspx?Id=8955
- Reserve Bank of India (2016). Master Circular—Mobile Banking transactions in India—Operative Guidelines for Banks. Retrieved 11 August 2017 from https://rbidocs.rbi.org.in/rdocs/notification/PDFs/MC177DF24D0B0964448286BC682385CDA1F3.PDF
- Reserve Bank of India (2014b). RBI's Recent Simplified KYC Measures for Public Awareness. Retrieved 11 August 2017 from https://www.rbi.org.in/scripts/BS_PressReleaseDisplay.aspx?prid=31935
- Staschen, S. (2015). Mobile Money Moves Forward in Uganda Despite Legal Hurdles. CGAP. Retrieved 11 August 2017 from http://www.cgap.org/blog/mobile-money-moves-forward-uganda-despite-legal-hurdles
- Stapleton, T. (2013). Unlocking the Transformative Potential of Branchless Banking in Indonesia. Bulletin of Indonesian Economic Studies, 49(3), 355-380.
- State Bank of Pakistan (2016a). Branchless Banking Regulations. Retrieved 11 August 2017 from http://www.sbp.org.pk/bprd/2016/C9-Annx-A.pdf
- State Bank of Pakistan (2016b). Framework for Branchless Banking Agent Acquisition and Management. Retrieved 11 August 2017 from http://www.sbp.org.pk/bprd/2016/C6-Annx-A.pdf
- State Bank of Pakistan (2016c). Regulations for Mobile Banking Interoperability 2016. Retrieved 11 August 2017 from http://www.sbp.org.pk/bprd/2016/C3-Annx-A.pdf
- Sultana, R. (2014). Mobile Financial Services (MFS) Business and Regulations: Evolution in South Asian Markets.

 Grameenphone Ltd. Retrieved 10 November 2017 from

 https://papers.srn.com/sol3/papers.cfm?abstract_id=2524220
- Tarazi, M. & Breloff, P. (2011) Regulating Banking Agents. CGAP, Focus Note Number 68. Retrieved 11 August 2017 from https://www.cgap.org/sites/default/files/CGAP-Focus-Note-Regulating-Banking-Agents-Mar-2011.pdf
- Tarazi, M. & Breloff, P. (2010). Non-Bank E-Money Issuers: Regulatory Approaches To Protecting Customer Funds. CGAP, Focus Note Number 63. Retrieved 10 November 2017 from https://www.cgap.org/sites/default/files/CGAP-Focus-Note-Nonbank-E-Money-Issuers-Regulatory-Approaches-to-Protecting-Customer-Funds-Jul-2010.pdf

- Telecom Regulatory Authority of India (2012). The Mobile Banking (Quality of Service) Regulations. Retrieved 11 August 2017 from http://www.trai.gov.in/sites/default/files/Mobile_BankingRegulations17042012.pdf (2012 Main Regulation)
- Telecom Regulatory Authority of India (2013). The Mobile Banking (Quality of Service) Amendment Regulations. Retrieved 11 August 2017 from http://www.trai.gov.in/sites/default/files/MobileBankingAmendment26112013.pdf (2013 Amendment)
- Telecom Regulatory Authority of India (2016). The Mobile Banking (Quality of Service) Amendment Regulations.

 Retrieved 11 August 2017 from

 http://www.trai.gov.in/sites/default/files/MobileBankingAmendment22112016.pdf
- USAID (2015). Digital Financial Services in Indonesia: An Overview of the USAID E-MITRA Project & Efforts to Advance Digital Financial Services in Indonesia. Retrieved 10 November 2017 from http://solutionscenter.nethope.org/assets/collaterals/MFS_eMITRAIndonesia-December20151.pdf
- Villasenor, J., West, D., & Lewis, R. (2016). The 2016 Brookings Financial and Digital Inclusion Project Report: Advancing Equitable Financial Ecosystems. Retrieved 10 November 2017 from https://www.brookings.edu/research/the-2016-brookings-financial-and-digital-inclusion-project-report/
- The World Bank (2015a). Automated Teller Machines (ATMs) (per 100,000 adults) [data from International Monetary Fund, Financial Access Survey]. Retrieved 17 November 2017 from https://data.worldbank.org/indicator/FB.ATM.TOTL.P5
- The World Bank (2015b). Commercial Bank Branches (per 100,000 adults) [data from International Monetary Fund, Financial Access Survey]. Retrieved 17 November 2017 from https://data.worldbank.org/indicator/FB.CBK.BRCH.P5
- The World Bank (2012). Information and Communications for Development 2012: Maximizing Mobile. World Bank. Retrieved 28 August 2017 from http://www.worldbank.org/ict/IC4D2012

Appendix A - Summary of Search Strings

		Google			Google Schola	r		Scopus	
Search String	Results Returned	Documents Reviewed	New Relevant Results Identified	Results Returned	Documents Reviewed	New Relevant Results Identified	Results Returned	Documents Reviewed	New Relevant Results Identified
"cash in" OR "cash out" AND "Digital finance"	-	-	-	108	100	5	2	2	0
"cash in" OR "cash out" And "mobile banking" And "regulation"	-	-	-	1,440	100	3	9	9	0
"cash*" And "e-money" And "regulation"	-	-	-	3,430	80	2	52	40	0
("cash in" OR "cash out") AND ("digital finance" OR "digital financial")	-	-	-	329	160	1	2	2	0
("cash in" AND "cash out") AND ("mobile banking" OR "mobile money" OR "e-money") AND "regulation"	-	-	-	694	160	2	21	21	0
site:cgap.org "cash in" "cash out" regulat*	222	170	1	-	-	-	-	-	-
site:gsma.com "cash in" ~"mobile banking" regulat*	107	90	3	-	-	-	-	-	-
"cash in" "cash out" "regulat*" ("Mobile banking" OR "digital finance" OR ~e-money)	463	80	2	-	-	-	-	-	-
("cash in" OR "cash out") AND ("digital finance" OR "digital financial") AND regulat*	403,300	100	5	-	-	-	-	-	-
site:helix-institute.com cash-in OR cash-out regulation	43	41	0	-	-	-	-	-	-
(Tanzania OR Nigeria OR Bangladesh OR Pakistan OR India OR Uganda OR Indonesia OR Kenya) And ("cash in" OR "cash out" OR "cash transaction") And ("mobile bank*" OR "digital finance") And ~regulation	49,500	100	2	-	-	-	7	7	0
ATM AND ("cash in" OR "cash out") And regulation AND digital	820,000	80	1	-	-	-	4	4	0
ATM AND ("cash in" OR "cash out") And regulation AND (Tanzania OR Nigeria OR	3,970	80	4	-	-	-	3	3	0

Bangladesh OR Pakistan OR India OR Uganda OR Indonesia OR Kenya)									
branchless AND banking AND (~regulation OR ~regulatory)	-	-	-	-	-	-	134	134	8
("cash in" OR "cash out") AND ("digital finance" OR "digital financial") AND "regulation" AND "impact"	71,900	100	0	231	80	2	-	-	-
("cash in" OR "cash out") AND ("mobile banking" OR "mobile money" OR "e-money") AND "regulation" AND "impact"	287,000	160	0	896	120	1	-	-	-

Appendix B - Typology of Regulatory Decision Options

This table outlines key decisions that countries can make to regulate CICOs and highlights how each focus country has approached these decisions. Further detail including specific regulations and dates of passage is provided in Appendix C and in the spreadsheet accompanying this report: Evans School Policy Analysis and Research Group (EPAR) (2018). Cash In Cash Out Network Regulations, Additional Information.

Regulatory Question	Regulatory Decision Options	Sub-Options	Countries Pursuing this Option
What are the KYC	1a. Same KYC requirement as	1ai. For opening accounts	India; Indonesia; Nigeria; Pakistan;
requirements for	traditional banks		Tanzania
mobile money?		1aii. For conducting transactions	Bangladesh; India; Kenya; Nigeria;
			Tanzania; Uganda
	1b. Less stringent KYC for mobile	1bi. For opening accounts	India; Indonesia; Nigeria; Pakistan
	money accounts	1bii. For conducting transactions	Bangladesh; India; Indonesia; Nigeria
Are there fees	2a. Fees originating from	2ai. Fees are permitted	Bangladesh; India; Kenya; Nigeria;
included with mobile	financial service provider (bank		Pakistan; Tanzania; Uganda
money?	or non-bank)	2aii. Fees are restricted	Nigeria
	2b. Additional fees originating	2bi. Fees are permitted	Nigeria
	from agents	2bii. Fees are restricted	Bangladesh; India; Kenya; Nigeria;
			Tanzania; Uganda
	2c. Restrictions on types of fees		Indonesia; Nigeria
	2d. Agent compensation (either		Bangladesh; India; Pakistan; Tanzania;
	from fees, commission, or some		Uganda
	other revenue-sharing structure)		
Are there (minimum	3a. Caps on balances held by		India; Indonesia; Nigeria; Pakistan;
or maximum) caps on	customers		Tanzania
mobile money?	3b. Caps on balances held by		India; Kenya; Nigeria
	agents		
	3c. Caps on transactions		Bangladesh; India; Kenya; Nigeria;
	completed by customers		Pakistan; Uganda
	3d. Caps on transactions		Bangladesh; Kenya; Uganda
	completed by agents		
	3e. Caps on other activities		India
Are there regulations	4a. Interoperability between	4ai. Is interoperability mandated?	Bangladesh; Indonesia; Kenya; Nigeria;
about being	multiple mobile money providers		Pakistan; Tanzania; Uganda
interoperable?		4aii. Is interoperability encouraged or permitted?	Bangladesh; India
	4b. Interoperability between	4bi. Is interoperability mandated?	Bangladesh; Indonesia; Kenya; Nigeria;
	mobile money providers and		Pakistan; Tanzania; Uganda
	banks	4bii. Is interoperability encouraged or permitted?	Bangladesh; India
Which entities are	5a. Banks' use of agents	5ai. Can use agents	Bangladesh; India; Indonesia; Kenya;
able or unable to use			Nigeria; Pakistan; Tanzania; Uganda
agents?		5aii. Restrictions on use of agents	Indonesia
	5b. MNOs/non-banks' use of	5bi. Can use agents	Bangladesh; Indonesia; Kenya; Nigeria;
	agents		Tanzania; Uganda

		5bii. Restrictions on use of agents	Nigeria
Are there reporting requirements?	6a. Reporting requirements for agents	6ai. Locations	Bangladesh; Indonesia; Kenya; Nigeria; Pakistan; Tanzania; Uganda
		6aii. Characteristics (e.g., gender, rural vs. urban)	Bangladesh; Kenya
		6aiii. Activities (e.g., transactions, account openings)	Bangladesh; India; Indonesia; Kenya; Nigeria; Tanzania; Uganda
	6b. Reporting requirements for other CICOs	6bi. Locations	Bangladesh; Nigeria
Are there	7a. Requirements on who can be	7ai. Requirements that must be met (e.g.,	Bangladesh; India; Indonesia; Kenya;
requirements for	an agent	business license)	Nigeria; Pakistan; Tanzania; Uganda
who can and cannot be an agent?		7aii. Types of entities that can be agents (e.g. post offices, etc.)	Bangladesh; Kenya; Nigeria; Uganda
		7aiii. Dedicated agents (e.g., agents cannot have a side business like a bodega)	India
	7b. Requirements on who cannot		Bangladesh; India; Kenya; Nigeria;
	be an agent		Tanzania; Uganda
Are there	8a. Agent exclusivity is required	8ai. Of all agents	Bangladesh; Indonesia
requirements for		8aii. Of some agents	Bangladesh; India
agent exclusivity?	8b. Agent exclusivity is permitted	8bi. Of all agents	Pakistan
		8bii. Of some agents	
	8c. Agent exclusivity is forbidden	8ci. Of all agents	Kenya; Nigeria; Tanzania; Uganda
		8cii. Of some agents	
Are there functions or services that	9a. Functions/services that agents must provide	9ai. Requirements on cash/e-float	Bangladesh; India; Kenya; Pakistan; Tanzania
agents must or		9aii. Other functions/services	Bangladesh; Nigeria
cannot provide?	9b. Functions/services that agents cannot provide		Bangladesh; India; Indonesia; Kenya; Nigeria; Pakistan; Tanzania; Uganda
Are there processes to authenticate agents?	10a. Processes to authenticate agents by banks	10ai. During registration	Bangladesh; India; Indonesia; Kenya; Nigeria; Pakistan; Tanzania; Uganda
	,	10aii. Ongoing	Bangladesh; India; Indonesia; Kenya; Nigeria; Pakistan; Tanzania; Uganda
	10b. Processes to authenticate		Bangladesh; India; Kenya; Nigeria;
	agents by customers		Tanzania; Uganda
Are there distinctions	11. Classes of agents		Bangladesh; India; Nigeria; Pakistan;
made about classes	J		Tanzania
of agents?			

Appendix C - Regulation Summaries by Country

These tables outline the key characteristics of CICO regulations by country. "Regulatory Decision Options" chosen by each country are noted in parentheses, following the typology provided in Appendix B (e.g., regulatory decision option 1ai = KYC requirements for opening accounts). Further detail on specific regulations is provided in the spreadsheet accompanying this report: Evans School Policy Analysis and Research Group (EPAR) (2018). Cash In Cash Out Network Regulations, Additional Information.

Bangladesh

Type of regulations	Description	Regulation
Know Your Customer Requirements	Bangladesh's earliest KYC regulation (2011) requires a KYC Profile Form for all mobile accounts. This profile form includes information on the account holder's identity, as well as bank account information and purpose of the transaction, among others (regulatory decision option 1aii). A later regulation (2013) built upon this and required two-factor authentication for all mobile money accounts (regulatory decision option 1aii). However, a 2015 regulation stipulating that transactions must be authenticated using two-factor authentication states that mobile account utilized for low value transactions should be subject to risk-proportionate, simplified KYC procedures (regulatory decision option 1bii). Mobile accounts opened in the names of businesses, utilities, or other entities subject to the full KYC procedures that are applicable for regular bank accounts. Agents are not permitted to open mobile money accounts themselves.	Guidelines on Mobile Financial Services (MFS) for the Banks (2011), Guidelines on Agent Banking for the Banks (2013), Guidance Note for Approval and Operation of Agent Banking Activities of Banks (2013), Regulatory Guidelines for Mobile Financial Services (MFS) in Bangladesh (2015), Prudential Guidelines for Agent Banking Operation in Bangladesh (2017)
Interoperability	In a 2004 regulation, the Bangladesh Telecommunication Regulatory Commission encouraged interoperability enabled through platforms such as the National Payments Switch (NPS) or bKash, and stated that the commission may impose conditions to ensure this interoperability in the future (regulatory decision option 4aii). A 2011 regulation stated that banks may link their mobile financial services with those of other banks for the convenience of users (regulatory decision option 4bii). In 2015, regulation stated that inter-bank, or multi-bank interoperability is required for all MFS platforms (regulatory decision option 4bi). This interoperability was to be facilitated in part through developing linkages to platforms such as the National Payments Switch (NPS) (regulatory decision 4ai). Bangladesh's most recent regulation (2017) reiterated this, stipulating that banks must ensure that agent banking systems have interoperability functions (regulatory decision option 4bi).	Bangladesh Interconnection Regulations (2004), Guidelines on Mobile Financial Services (MFS) for the Banks (2011), Regulatory Guidelines for Mobile Financial Services (MFS) in Bangladesh (2015), Prudential Guidelines for Agent Banking Operation in Bangladesh (2017)
Institution types that can use agents (bank/non- bank) for financial transactions	Early regulation (2011) stipulated that Bangladesh's bank-led model of branchless banking may operate through appointed agents, facilitated by MNOs/Solution Providers (regulatory decision option 5bi). Later regulation (2013) reiterated that the agents of MNOs may conduct agent banking. Again in 2015, regulation stated that MPS platforms may enter into engagements with MNOs for agent banking. A 2013 regulation stipulated that banks are permitted to conduct agent banking, which can include the agents of MNOs (regulatory decision option 5ai). An additional 2013 regulation required that banks to have at least two rural agent banking outlets to have one urban agent banking outlet, and stated that banks must prioritize rural areas for their operation of agent banking. This regulation also stipulated that "bank related"	Guidelines on Mobile Financial Services (MFS) for the Banks (2011), Guidance Note for Approval and Operation of Agent Banking Activities of Banks (2013), Guidelines on Agent Banking for the Banks (2013), Regulatory Guidelines for Mobile Financial Services (MFS) in Bangladesh (2015), Prudential Guidelines for Agent Banking Operation in Bangladesh (2017)

persons" may not be agents or sub-agents. The most recent regulation (2017) reiterated that banks may provide banking services through agents. Use of exclusive Two 2013 regulations stipulated that while agents may partner Guidelines on Agent Banking for agents with more than one bank at a time, retail agents or sub agents the Banks (2013), Guidance Note for Approval and Operation of may only represent and offer banking services of a single bank Agent Banking Activities of Banks (regulatory decision option 8aii). The most recent regulation (2017) states that agents are not permitted to enter into agent (2013), Regulatory Guidelines for banking contracts with more than one bank (regulatory decision Mobile Financial Services (MFS) in option 8ai). Bangladesh (2015), Prudential Guidelines for Agent Banking Operation in Bangladesh (2017) Early regulation (2013) states that an agents must have sound Guidelines on Agent Banking for Agent selection (exclusion & financial capacity and strong. IT and electronic communication the Banks (2013), Regulatory pre-existing infrastructure, that is compatible with mobile money features Guidelines for Mobile Financial requirements) (e.g., can integrate with Person Identification Number (PIN) Services (MFS) in Bangladesh pads, etc.). This regulation also stipulates that sub-agents must (2015), Prudential Guidelines for have physical infrastructure (e.g. at least one computer) and Agent Banking Operation in must have at least two full-time employees (regulatory decision Bangladesh (2017) option 7ai). An additional regulation from 2013 states that agents must have the competence to support mobile money activities, be financially sound, have a strong business reputation, and have the necessary infrastructure to support mobile money services, including technological, security, reporting and monitory capabilities (regulatory decision option 7ai). Later regulation (2015) reiterates these requirements for selecting agents by MFS platforms. Regulation from 2013 also identifies entities that can be engaged as agents. A variety of entities are eligible, and include NGOs, MFIs, post offices, pharmacies, offices of local government institutions, and agents of MNOs, among others (regulatory decision option 7aii). A 2015 regulation states that those entities with an extensive network of service delivery outlets (e.g., NGO MFIs, MNOs, government's Postal Department etc.) are eligible to be wholesale/retail field level service delivery agents (regulatory decision option 7aii). The most recent regulation (2017) includes separate eligibility requirements for master agents and unit agents, however generally entities identified in 2017 regulation are still eligible and the regulation stipulates that any other entity which Bangladesh Bank may prescribe or authorize is eligible (regulatory decision options 7ai & 7aii). Both requirements for master and unit agents include requirements related to agent location, financial stability, and business licenses or permits (regulatory decision option 7ai). More stringent eligibility requirements exist for Master Agents, including that it must be an entity with multiple branches or outlets, it must employ at least two person with the required managerial and financial expertise, and it must carry out business activities on an ongoing basis, among others. Two 2013 regulations indicate that an individual who has defaulted on a loan or who has been convicted under any criminal proceedings cannot be an agent (regulatory decision option 7b). This requirement is reiterated in a 2015 regulation. The most recent regulation (2017) indicates that bank officials or bank related persons are not eligible to be agents. Bank officials are not eligible to become agents with one year of their retirement or resignation. This regulation also states that

defaulters, bankrupts, or persons convicted by a court of law up to three years after completion of sentences or penalties, or persons under investigation are not eligible to be agents.

Agent Compensation	Banks must pay a reasonable fee/commission to their agents. (regulatory decision option 2d)	Guidelines on Agent Banking for the Banks (2013)
Agent Services	A 2013 regulations states that agents must provide cash deposit and withdrawal services at a minimum (regulatory decision option 9aii). Additionally, regulation from 2013 prohibits agents from giving final approval of opening of bank accounts and issuance of bank cards/cheques, dealing with loans and financial appraisal, encashing cheques or dealing in foreign currency (regulatory decision option 9b). The most regulation (2017) states that agents are not permitted to: open accounts, grant loans or carry out any appraisal function for purposes of opening an account or granting of a loan or any other facility; make debit or credit transactions using cheque; or transact in foreign currency (regulatory decision option 9b).	Guidelines on Agent Banking for the Banks (2013), Prudential Guidelines for Agent Banking Operation in Bangladesh (2017)
Agent e-float	A 2013 regulation requires that agents deposit a fixed amount of money or have a credit limit with the bank (regulatory decision option 9ai). An additional 2013 regulation restates this requirement. In addition to this, the regulation stipulates that banks will provide overdraft/credit facility to each agent, depending on the number of sub-agents under their authority (regulatory decision option 9ai). Credit should be no more than Tk. 100,000/- (One Lakh) per sub-agent.	Guidelines on Agent Banking for the Banks (2013), Prudential Guidelines for Agent Banking Operation in Bangladesh (2017)
Different Agent Classes	Early regulation (2013) identifies sub agents as entities who work under an agent and run the agent banking activities in a specific outlet at the customer end point (regulatory decision option 11). The most recent regulation (2017) indicates that classes of agents can include master agents and unit agents, and outlines the eligibility requirements for each.	Guidance Note for Approval and Operation of Agent Banking Activities of Banks (2013), Prudential Guidelines for Agent Banking Operation in Bangladesh (2017)
Caps & Fees	Early regulation (2011) states that banks may fix charges for mobile financial services, which will be under Bangladesh Bank oversight (regulatory decision option 2ai). Later regulation (2017) reiterates that banks are permitted to charge customers a fee or commission. A 2013 regulation states that agents can charge fees on behalf of banks, but are not permitted to charge customers fees or commissions directly (regulatory decision option 2bii). The most recent regulation (2017) reiterates this, stating that agents are required to collect fees, charges and commissions on behalf of banks, but may not charge customers directly. Early regulation (2011) states that Bangladesh Bank will fix MFS transaction limits and overall caps (per customer/ per month) as and when needed (regulatory decision option 3c). Later regulation (2013) restricts clients to a withdrawal limit of Tk. 50,000.00 (Fifty Thousand) per day. A 2015 regulation states that caps on transaction size will be proportionate to the account; low value accounts intended for low income individuals will have transaction size and frequency limits set by Bangladesh Bank. The most recent regulation (2017) sets a maximum number and volume of transaction by account type. Different limits exist for current accounts, savings accounts and special notice deposits. However, these limits may be exceeded if banks are given at least one day advance notice, or if approval is given by Managing Director/Chief Executive Officer of the bank. A 2013 regulation stipulates that sub-agents are restricted to a maximum of two transactions per client per day (regulatory decision option 3d).	Guidelines on Mobile Financial Services (MFS) for the Banks (2011), Guidelines on Agent Banking for the Banks (2013), Guidance Note for Approval and Operation of Agent Banking Activities of Banks (2013), Regulatory Guidelines for Mobile Financial Services (MFS) in Bangladesh (2015), Prudential Guidelines for Agent Banking Operation in Bangladesh (2017)
Agent Reporting Requirements	Early regulation (2011) required banks to report the names and addresses of all agents and cash points to the Department of Currency Management and Payment System (DCMPS), Bangladesh Bank on a monthly basis, and publish this list on its	Guidelines on Mobile Financial Services (MFS) for the Banks (2011), Guidelines on Agent Banking for the Banks(2013),

website (regulatory decision option 6ai & 6aiv). This regulation also required banks to report monthly on various transactions, including inward foreign remittances and other mobile financial transactions (regulatory decision option 6aiii). A 2013 regulation reiterated this requirement and stated that names and addresses of agents must also be submitted to the Green Banking and CSR Departments of Bangladesh Bank, This regulation also stipulated that required banks to submit an information sheet on proposed agents included just information as organizational history, financial strength and number of sub agents, among other characteristics (regulatory decision option 6aii). A 2015 regulation states that banks must provide a list of the names and locations of all retail agents and cash points when submitting a MFS platform application (regulatory decision option 6ai & 6aiv). This regulation also required banks to submit monthly summaries on payment service transactions (regulatory decision option 6aiii). The most recent regulation (2017) states that banks are required to publish a list of all agents within its branches, at agent banking offices and on their website (regulatory decision option 6ai). This regulation also stipulates that banks must submit quarterly reports of agent activities, including value, volume and geographical distribution of transactions, and reporting on urban vs rural and male vs female, among other characteristics (regulatory decision option 6aii & 6aiii).

Guidance Note for Approval and Operation of Agent Banking Activities of Banks (2013), Regulatory Guidelines for Mobile Financial Services (MFS) in Bangladesh (2015), Prudential Guidelines for Agent Banking Operation in Bangladesh (2017)

Agent Authentication and Due Diligence

Early regulation (2011) required that banks have clear and well documented agent selection policies and procedures, and required banks to monitor activities of agents on a regular basis (regulatory decision option 10ai & 10aii). A 2013 regulated required banks to submit agent and sub agent due diligence policies and procedures as part of their agent banking application (regulatory decision option 10ai). Additionally, 2013 regulation required banks to formulate internal audit policies for monitoring and controlling agents, including visiting agent locations at regular intervals to ensure agent compliance with rules and regulations (regulatory decision option 10aii). Later regulation (2015) stated that MFS platforms should have internal controls and audit processes including procedures for routine oversight of agents and customer satisfaction levels (regulatory decision option 10aii). The most recent regulation (2017) states that banks must conduct due diligence prior to engaging an agent, which must include at a minimum checks of agents at specified intervals, as well as procedures for proactive agent management including identifying warning signals and associated corrective action (regulatory decision option 10ai & 10aii).

Guidelines on Mobile Financial Services (MFS) for the Banks (2011), Guidelines on Agent Banking for the Banks(2013), Guidance Note for Approval and Operation of Agent Banking Activities of Banks (2013), Regulatory Guidelines for Mobile Financial Services (MFS) in Bangladesh (2015), Prudential Guidelines for Agent Banking Operation in Bangladesh (2017)

A 2013 regulation required agents to clearly display the name, logo, contact address and telephone number of the bank so that customers know the agent is providing services on behalf of the bank (regulatory decision option 10b). Additionally, this regulation required banks to make agents, their activities and limitations known to the public. The most recent regulation (2017) requires agents to clearly display and disclose to customers their business license, bank approval letter and list of eligible services that they may provide (regulatory decision option 10b).

Other: Agent Banking Priorities

In establishing agent banking outlets or banking service outlets banks are required to give priority to areas where formal financial services are unavailable, including areas where there is no bank branch within a 1 km radius, rural areas, chars, islands Prudential Guidelines for Agent Banking Operation in Bangladesh (2017) and other geographical areas with limited accessibility. Agent banking outlets should be distributed equally among these previously unreached areas. At a minimum banks should maintain a ratio of 3:1 for rural and urban agent banking outlets.

Banks are encouraged to promote small businessmen and women entrepreneurs for unit agents, and should employ women officials for facilitating acquisition of rural women clients. Additionally, banks should enact policies which prioritize low-income households, cottage, micro and small businesses without access to formal banking services.

Type of	Description	Regulation
regulations		
Know Your Customer Requirements	An initial regulation in 2010 stated that Business Correspondents should comply with previously outlined KYC procedures for opening accounts (regulatory decision option 1ai). In 2014, a Master Circular reinforced this language, despite 2012 language that suggested modified KYC requirements may be developed. A 2016 regulation added that stated that previously outlined KYC guidelines are applicable to mobile-based banking services, and that the dispersal of funds as an agent is only permitted after identification (two-factor authentication, including mPIN) (regulatory decision option 1aii). However in 2012, regulations suggested that a simplified KYC requirements be developed for mobile-linked "No Frills" accounts, but did not provide these simplified requirements until 2014 (regulatory decision option 1bi). In 2014, the Reserve Bank of India released simplified KYC requirements for opening a bank account, and created less stringent requirements for low/medium risk customers compared to high risk customers (regulatory decision option 1bi) and additional guidelines were released in 2014 that these simplified KYC requirements for opening accounts also apply to "small account" transactions (regulatory decision option 1bii).	Financial Inclusion by Extension of Banking Services - Use of Business Correspondents (BCs) (2010); The Mobile Banking (Quality of Service) Regulations (2012); Master Circular on Branch Authorization (2014); RBI's Recent simplified KYC Measures For Public Awareness (2014); Guidelines for Licensing of "Payments Banks" (2014); Master Circular - Mobile Banking transactions in India - Operative Guidelines for Banks (2016); Master Direction - Know Your Customer (KYC) Direction (2016)
Interoperability	In 2012, a 2010 regulation on financial inclusion by extension of banking services was amended to allow for interoperability; this amendment states that agents and sub-agents can be interoperable among one another as long as basic requirements, such as operating on the Core Banking Solution platform, are met (regulatory decision option 4aii & 4bii). Another regulation in 2012 proposed a system for sharing interoperable central payments across Banking Correspondents, banks or associated financial institutions, and mobile service providers, a 2014 regulation reinforced the 2010 regulation/2012 amendment, permitting agents and sub-agents to be interoperable (regulatory decision option 4aii & 4bii). In 2016, a Master Circular stated that interoperability between banks, irrespective of the mobile network, is a long-term goal for all of India (regulatory decision option 4bii). Additionally, two regulations in 2016 allowed for interoperability among Business Correspondents, except for the opening of savings, current, and deposit accounts (regulatory decision option 4bii).	Financial Inclusion by Extension of Banking Services - Use of Business Correspondents (BCs) (2010); The Mobile Banking (Quality of Service) Regulations (2012); Master Circular on Branch Authorization (2014); Guidelines for Licensing of "Payments Banks" (2014); Master Circular - Mobile Banking transactions in India - Operative Guidelines for Banks (2016); Operating Guidelines for Payments Banks (2016); Operating Guidelines for Small Finance Banks (2016)
Institution types that can use agents (bank/non-bank) for financial transactions	A 2010 regulation noted that commercial banks may engage Business Correspondents. 2012 regulation was amended in 2013 to stipulate that banks can use agents to provide banking services through mobile phones. In 2014, a Master Circular added to the 2010 regulation regarding commercial banks and Business Correspondents, and added that banks are permitted to use the services of intermediaries in providing financial and banking services through the Business Correspondent model. Another Master Circular issued the same year (2014) specified the Regional Rural Banks may use intermediaries as well. A 2016 regulation reinforced that banks may use Business Correspondents. And finally in 2016, two sets of guidelinesone for Payment Banks and one for Small Finance Banksallowed these entities to engage "access points," or intermediaries to provide their financial services (regulatory decision option 5ai).	Financial Inclusion by Extension of Banking Services - Use of Business Correspondents (BCs) (2010); The Mobile Banking (Quality of Service) Regulations (2012); Master Circular on Branch Authorization (2014); Master Circular on Branch Licensing - Regional Rural Banks (RRBs) (2014); Master Circular - Mobile Banking transactions in India - Operative Guidelines for Banks (2016); Operating Guidelines for Payments Banks (2016); Operating Guidelines for Small Finance Banks (2016)

Use of exclusive agents	A 2010 regulation stated that Business Correspondents may partner with multiple banks, however a retail or sub-agent may only partner with one bank. A regulation 2014 reinforced the 2010 regulation, and also stipulated that BCs much maintain separate databases for each partner bank (regulatory decision option 8aii).	Financial Inclusion by Extension of Banking Services - Use of Business Correspondents (BCs) (2010); Master Circular on Branch Authorization (2014)
Agent selection (exclusion & pre-existing requirements)	A regulation in 2010 specified which different types of entities may engage as a Business Correspondent. This regulation also required BCs to be attached to and under the oversight of a specific bank branch. It specifies that a retail outlet/sub-agent of a BC must be no further than 50 km from the bank in rural, semi-urban, and urban areas; and may not exceed a distance of 5 km in metropolitan centers. This 2010 regulation was updated in 2014 to allow banks to engage non-deposit taking institutions as BCs, if requirements are met. The distance requirement from 2010 was removed. A separate 2014 regulation also provides a list of entities that may serve as an intermediary or Business Correspondent for banks. A set of 2014 guidelines state that preference will be given to Payment Banks that provide access points in under-banked locations in the Northeast, East, and Central regions of the country. It also states that Payment Banks should ensure that their reach remote areas and that at least 25 percent of access points should be in rural centers. A 2016 regulation exempted Payment Banks from a requirement to have a base branch for a certain number of access points or Business Correspondents, and a separate 2016 regulation states that only Business Correspondents which conduct online transactions or use PoS terminals for transactions will be permitted (regulatory decision option 7ai). Additionally, a 2014 regulation prohibits Payment Banks from setting up subsidiaries that undertake non-banking financial	Financial Inclusion by Extension of Banking Services - Use of Business Correspondents (BCs) (2010); Master Circular on Branch Authorization (2014); Guidelines for Licensing of "Payments Banks" (2014); Operating Guidelines for Payments Banks (2016); Operating Guidelines for Small Finance Banks (2016)
Agent Compensation	services (regulatory decision option 7b). A 2010 regulation states that banks can pay a reasonable commission/fee to their Business Correspondents, the rate and amount of which may be reviewed periodically. The commission structure or incentive mechanism should be devised in a manner that an increase in only the number of clients served or the transaction volume does not drive the commission. This was reinforced in a 2016 regulation (regulatory decision option 2d).	Financial Inclusion by Extension of Banking Services - Use of Business Correspondents (BCs) (2010); Master Circular on Branch Authorization (2014)
Agent Services	A 2014 regulation prohibits Payment Banks from undertaking lending activities, accepting NRI deposits, issuing credit cards, or setting up subsidiaries to undertake non-banking financial services (regulatory decision options 9b & 7aiii). This same regulation also requires that Payment Banks ensure that non-financial service activities be kept separate from banking and financial services; it also requires that "Payment Bank" be clearly stated in the title, and that these banks invest 75 cents of demand deposit balances in Government Securities or Treasury Bills, have a minimum equity capital of Rs. 100 crore, and a minimum capital adequacy ratio (ratio depends on tier) (regulatory decision option 9ai). In 2016, a set of guidelines stipulate that when a Payment Bank acts as a Business Correspondent for a bank, the Payment Bank's own BCs may not open deposits or review KYC documentation for the bank (regulatory decision option 9b).	Operating Guidelines for Payments Banks (2016)

Caps & Fees	A 2010 regulation requires Business Correspondents to specify suitable limits on individual customer payments, but no value was specified; this was reinforced in a 2014 regulation (regulatory decision option 3a). This 2010 regulation also stated that: banks are permitted to collect reasonable service charges from customers (regulatory decision option 2ai); Business Correspondents may not charge any fee to customers directly for services rendered on behalf of the bank, which was reinforced in a 2014 regulation (regulatory decision option 2bii); and that Business Correspondents should specify suitable limits on cash holding by intermediaries, which was also reinforced in a 2014 regulation (regulatory decision option 2bii). The 2014 regulation also added guidelines stating that Payment Banks may not provide balances that exceed Rs. 100,000 per customers until the Reserve Bank of India has assessed the individual PB's performance. Meanwhile, small account balances may not exceed Rs. 50,000 (regulatory decision option 3a) and that Payment Banks may not allow transfers for small accounts that exceed Rs. 10,000 per month (regulatory decision option 3c). In 2016, a Master Circular stated that the maximum cash out value for transfers shall be Rs. 10,000 per transaction; banks may place additional caps on the number of transaction, subject to a maximum value of Rs. 25,000 per month; and regarding mobile banking, banks may offer services with no maximum caps for daily transactions, depending on the bank's own risk perception (regulatory decision option 3c). In 2014, guidelines stated that Payment Banks may not allow credits that exceed Rs. 1 lakh for small accounts (regulatory decision option 3e).	Financial Inclusion by Extension of Banking Services - Use of Business Correspondents (BCs) (2010); Master Circular on Branch Authorization (2014); Guidelines for Licensing of "Payments Banks" (2014); Master Circular - Mobile Banking transactions in India - Operative Guidelines for Banks (2016)
Agent Reporting Requirements	A 2010 regulation stated that banks may place information on their Business Correspondents on their websites, and that annual reports should include progress towards extending financial services through BC networks (regulatory decision option 6aiii).	Financial Inclusion by Extension of Banking Services - Use of Business Correspondents (BCs) (2010)
Agent Authentication and Due Diligence	A 2010 regulation states that: banks must carry out due diligence reviews before engaging potential Business Correspondents, and provides specific items to review (regulatory decision option 10ai); banks should regularly monitor the activities of their BCs and conduct a detailed review of BC performance at least once per year (regulatory decision option 10aii); and agents and sub-agents may be required to post a sign indicating their status as a service provider to banks for customers (regulatory decision option 10b). All three of these were reinforced in a 2014 regulation. Additionally, a 2016 regulation states that banks may carry out due diligence of individuals before appointing them as agents that conduct fund transfer services (regulatory decision option 10ai).	Financial Inclusion by Extension of Banking Services - Use of Business Correspondents (BCs) (2010); Master Circular on Branch Authorization (2014); Master Circular - Mobile Banking transactions in India - Operative Guidelines for Banks (2016)
Different Agent Classes	2010 regulations state that while a BC can be a BC for more than one bank, at the point of customer interface, a retail outlet or sub-agent of a BC shall represent and provide banking services of only one bank (<i>regulatory decision option</i> 11). 2012 regulations affirm the use of sub-agents.	Financial Inclusion by Extension of Banking Services - Use of Business Correspondents (BCs) (2010, 2012)
Agent e-float	No relevant regulations were found on this topic.	

Indonesia

Type of regulations	Description	Regulation
Know Your Customer Requirements	Indonesia's earliest regulation pertaining to DFS (2003) created KYC requirements consistent with those of traditional banks for account opening (regulatory decision option 1ai). This regulation and subsequent required customers to submit their full name, identity document number, residential address, place and date of birth, nationality, phone number, occupation, sex, and biometric data or signatures when opening an account. Identity documents could include an identity card (KTP), driver's license (SIM), passport, or other official documents issued by Governments Agencies. In 2014, new branchless banking regulation allowed for some simplified KYC requirements for certain accounts (regulatory decision option 1bi). For example, basic savings accounts could be opened with a reference letter from a local community leader. The most recent regulation (2017) further relaxes KYC requirements (regulatory decision options 1bi & 1bii). It applies simplified KYC requirements (both for opening accounts and conducting transactions) to be applied more broadly to those considered low risk. Low risk users could be based on the country or geographic area, product or service, or delivery channel. Low-risk products or services could include products or services made to support financial inclusion, enhancement of community welfare, poverty alleviation and/or aimed at persons with disabilities, or other products or services designed for a limited purpose, usability, or with limited features. Service providers are permitted to collect KYC documents through third parties (i.e., agents).	Regulation 3/10/PBI/2001, as amended by Regulations 3/23/PBI/2001 and 5/21/PBI/2003 (2003); Money Transfer Circular, BI Regulation 8/28/PBI/2006 (2006); Bank Indonesia number 11/12/PBI/2009 Electronic money (2009); E-Money Circular (2009); No. 19 / POJK.03 / 2014: Branchless banking "laku pandai" (2014); No. 19/10/PBI/2017: Implementation of Anti-Money Laundering and Prevention of Terrorism Financing for Non-Bank Payment System Service Provider and Non-Bank Money Changing Service Provider (2017)
Interoperability	All e-money systems are required to be interoperable (regulatory decision options 4ai & 4bi). However, this is not the case for point-of-sale (POS) terminals, where commercial banks use non-interoperable proprietary systems.	Bank Indonesia number 11/12/PBI/2009 Electronic money (2009); E-Money Circular (2009)
Institution types that can use agents (bank/non- bank) for financial transactions	Early regulation (2006) prohibited rural banks from providing financial services through agents, and prohibited money transferors from using agents (regulatory decision option 5aii). However, regulation allowed for banks to use a tiered system of bank branches which included such mobile cash services as cash automobiles and cash boats. In 2009 regulations were revised to allow e-money issuers to partner with agents for electronic money replenishment and cash withdrawal (though not in the context of money transfer) (regulatory decision option 5bi). Additionally, regulation in 2009 allowed banks to cooperate with payment points, where customers process bill payments and payment of salaries. In 2014 Indonesia introduced the pilot program Laku Pandai, which allowed banks meeting certain criteria in specific areas that were already providing mobile money services to partner with agents (regulatory decision option 5ai). This applied to banks that are Indonesian legal entities, have a risk profile grading of 1-3, have office networks in the eastern part of Indonesia and/or East Nusa Tenggara, and already provide mobile banking services. The most recent regulation (2017) allows banks to partner with agents to make a direct connection with a potential customer, including agents, cash payment points (TPT), and digital financial services (LKD) agents (regulatory decision option 5ai).	Money Transfer Circular BI Regulation 8/26/PBI/2006 (2006); E-Money Circular (2009); Commercial Banks Regulation 1 1/1/PBI/2009 (2009); No. 19 / POJK.03 / 2014: Branchless banking "laku pandai" (2014); No. 19/ 10 /PBI/2017: Implementation of Anti-Money Laundering and Prevention of Terrorism Financing for Non-Bank Payment System Service Provider and Non-Bank Money Changing Service Provider (2017)

Use of exclusive agents	The Laku Pandai pilot program in 2014 included a requirement for agent exclusivity (regulatory decision option 8ai).	No. 19 / POJK.03 / 2014: Branchless banking "laku pandai" (2014)
Agent selection (exclusion & pre-existing requirements)	The earliest regulation concerning agent selection (2006) stipulated that agents must obtain a license as business activity administrator of money remittance in order to provide cash-in or cash-out services (<i>regulatory decision option</i> 7ai). With the introduction of the Laku Pandai pilot program in 2014, agents were required to be domiciled in the location where the program is conducted, and have had a viable source of income for the last 2 years (<i>regulatory decision option</i> 7ai). Additionally, agents must have IT infrastructure and retail outlets that are sufficient to support the Laku Pandai business.	Money Transfer Circular; BI Regulation 8/28/PBI/2006 (2006); E-Money Circular (2009); No. 19 / POJK.03 / 2014: Branchless banking "laku pandai" (2014)
Agent Services	It is recommended that banks consider limiting the scope of services that agents can provide (regulatory decision option 9b).	No. 19 / POJK.03 / 2014: Branchless banking "laku pandai"
	However, it is ultimately up to the banks to determine the scope of services offered.	(2014)
Caps & Fees	Early regulation (2009) specified different caps on account balances and transactions for registered and unregistered mobile money users; caps on balances and transactions are lower for unregistered mobile money users (regulatory decision option 3a). The maximum account balance for basic savings accounts is RP 20,000,000; there is no minimum account balance. The cap on cash-out transactions for basic savings accounts is Rp 5,000,000/month or Rp 60,000,000/year; there are no cash-in or cash-out minimums. A later regulation (2014) reiterated these limits (regulatory decision option 3a). In later rounds of regulations (2014) Indonesia stipulated that customers may only be charged for withdrawals and transfer-out services, and that all other transactions are free (regulatory decision option 2c).	E-Money Circular (2009), No. 19 / POJK.03 / 2014: Branchless banking "laku pandai" (2014)
	No information is included on caps related to agents specifically.	
Agent Reporting Requirements	Early regulation (2009) stipulated that information on cash service activities, including from mobile cash services and payment points, must be included in Bank financial reports (regulatory decision option 6aiii). Later regulation (2017) expanded these reporting requirements to include records related to all customer financial transaction, and information on agents (regulatory decision options 6ai & 6aiii). Service providers are required to report this information to Bank of Indonesia upon request.	Commercial Banks Regulation, Regulation 1 1/1/PBI/2009 (2009); No. 19/ 10 /PBI/2017: Implementation of Anti-Money Laundering and Prevention of Terrorism Financing for Non-Bank Payment System Service Provider and Non-Bank Money Changing Service Provider (2017)
Agent Authentication and Due Diligence	Early regulation (2009) allowed for the collection of information on agents who conducted damaging actions and the creation of an agent "black list" to be shared among service providers (regulatory decision option 10aii). The most recent regulation (2017) allows Bank Indonesia to periodically monitor and evaluate agents to ensure compliance with regulations, policies and procedures (regulatory decision option 10aii). In 2014, regulation stipulated that agents must pass a banks' due diligence procedures (regulatory decision option 10ai).	Bank Indonesia number 11/12/PBI/2009 Electronic money (2009), No. 19 / POJK.03 / 2014: Branchless banking "laku pandai" (2014); No. 19/ 10 /PBI/2017: Implementation of Anti-Money Laundering and Prevention of Terrorism Financing for Non-Bank Payment System Service Provider and Non-Bank Money Changing Service Provider (2017)
Different Agent Classes	No relevant regulations were found on this topic.	
Agent e-float	No relevant regulations were found on this topic.	

Agent	No relevant regulations were found on this topic.
Compensation	

Kenya

Type of	Description	Regulation
regulations		
Know Your Customer Requirements	Early regulations (2010) required customers be identified using two factor authentication, at a minimum, when conducting transactions. Authentication methods include IDs, PINs, passwords, ATM card, secret code, or secret message among others (regulatory decision option 1aii). This requirement is restated in 2013 regulations. 2014 regulations required payment service providers to maintain a register of customers and their outstanding funds, which should include either the ID number or passport number of the customer (regulatory decision option 1aii).	Guidelines on Agent Banking (2010); Prudential Guidelines for Institutions Licensed Under the Banking Act (2013); The National Payment System Regulations (2014)
Interoperability	In 2013, regulations required payment service providers to use systems capable of interoperability with other payments systems, both domestically and internationally. Additionally, payment service providers were encouraged to enter into interoperability agreements (regulatory decision options 4ai & 4bi). The most recent regulation (2014) reaffirms this.	The National Payment System Regulations (2013); The National Payment System Regulations (2014)
Institution types that can use agents (bank/non-bank) for financial transactions	Early regulations (2010) stated that Institutions as defined by the Banking Act, which include banks, mortgage finance companies, or a financial institutions, and the Microfinance Act, which include deposit-taking microfinance businesses, may use agents for financial services (regulatory decision options 5ai & 5bi). Additionally, any other body the Minister and the Central Bank allow may use agents for financial services. More recent regulation (2013) reaffirms this.	Guidelines on Agent Banking (2010); Prudential Guidelines for Institutions Licensed Under the Banking Act (2013)
Use of exclusive agents	Early regulations (2010) stated that institutions are not permitted to have exclusive contracts with agents (regulatory decision option 8ci). Agents must have separate contracts with each institution, and must have the capacity to contract with multiple institutions prior to doing so. 2013 and 2014 regulations reaffirm this (regulatory decision option 8ci).	Guidelines on Agent Banking (2010); The National Payment System Regulations (2013); Prudential Guidelines for Institutions Licensed Under the Banking Act (2013); The National Payment System Regulations (2014)
Agent selection (exclusion & pre-existing requirements)	The earliest regulation (2010) stipulated that prior to appointing an agent, an institution must show that an agent has a well-established commercial activity, and business license or permit, that has been active for at least 18 months, and has the capacity to provide banking services safely and efficiently (regulatory decision option 7ai). 2010 regulations stated that organizations eligible to become an agent include limited liability companies, sole proprietorships, partnerships, societies, cooperative societies, state corporations, public entities, and any other organization identified by the Central Bank (regulatory decision option 7aii). 2013 regulations required agents and partnering organizations to possess registrations, business licenses, or permits for a commercial activity (regulatory decision option 7ai). More specifically, the regulations stipulated that organizations must submit to the institution it plans to partner with a certificate of incorporation or registration of its business name, if applicable, a description of the commercial activity it has been carrying out for the last twelve months and the associated business license or permit, if applicable, bank statements for the last two years, if	Guidelines on Agent Banking (2010); E-Money Regulation (2013); The National Payment System Regulations (2013); Prudential Guidelines for Institutions Licensed Under the Banking Act (2013); The National Payment System Regulations (2014)

	applicable, the agents physical location including postal address, GPS coordinates and telephone number, and evidence of an availability of funds (<i>regulatory decision option</i> 7ai). 2013 regulations also expanded the types of activities agents can be involved in to include either commercial or non-commercial activities and offered more specification on how an agent can prove their capacity, specifically that an agent must hold a payment account with a financial institution and show that they are financially sound (<i>regulatory decision option</i> 7ai). The most recent regulation (2014) reaffirms this.	
Agent Services	2010 regulation stipulated that agents should show that they have funds available to cover all operations, including customer deposits and withdrawals when applying to become an agent (regulatory decision option 9ai). 2010 regulations also state that agents are not permitted to offer banking services on its own accord, offer any guarantee in favor of any institution or customer, open accounts, grant loans, undertake cheque deposit and encashment of cheques, transact foreign currency, or provide cash advances (regulatory decision option 9b). 2013 regulation stated that e-money is not a deposit within the meaning of the Banking Act, the Microfinance Act, or the SACCO Societies Act and is not subject to any deposit protection (regulatory decision option 9ai). Agent banking businesses are not permitted to be run by an employee or an associate of a bank. Agents shouldn't continue offering banking services if their initial commercial activity has ceases or significantly diminished, or if the agent has a proven criminal record involving fraud, dishonesty, integrity or any other financial impropriety.	Guidelines on Agent Banking (2010); Prudential Guidelines for Institutions Licensed Under the Banking Act (2013); The National Payment System Regulations (2013)
Agent e-float	2010 regulation stipulated that agents should show that they have funds available to cover all operations, including customer deposits and withdrawals when applying to become an agent (regulatory decision option 9ai). Limits on cash holdings by the agent should be included in every agent contract. 2013 regulation stated that e-money is not a deposit as defined by the Banking Act, the Microfinance Act, or the SACCO Societies Act and is not subject to deposit protection (regulatory decision option 9ai).	Guidelines on Agent Banking (2010)
Caps & Fees	2010 regulations specified that limits on cash holdings by the agent should be included in every agent contract (regulatory decision option 3b). These regulations also stated that institutions should set prudent transaction limits for each type of transaction that take into account the risks associated with the agents locality (regulatory decision option 3d). The most recent legislation (2014) further specifies that individual transactions may not exceed 70,000 shillings and aggregate monthly transactions may not exceed 1 million shillings, however the bank may approve higher limits for specific emoney issuers (regulatory decision option 3c). Early regulations (2010) mandated that agents not be permitted to charge customers fees, and all contracts between an institution and an agent should stipulate this (regulatory decision option 2bii). In 2013 regulations stated that the fees applicable to the redemption of e-money and fees for balance inquiries should be made known to the customers upon account opening (regulatory decision option 2ai).	Guidelines on Agent Banking (2010); E-Money Regulations (2013); The National Payment System Regulations (2014)

2010 regulations stated Agent Due Diligence procedures should be in place that at a minimum contain methods for identifying agents, initial due diligence procedures, regular due diligence checks and their specified intervals, and a list of warning signals and corrective actions (regulatory decision options 10ai & 10aii). 2010 regulation also state that institutions should ensure that a channel of communication exists through which customers may verify the authenticity of an agent, its location and the validity of the agents banking business. If requested by a customer, an agent should show a copy of their bank approval letter, appointment letter from the institution, and the license for the commercial activity the agent is undertaking (regulatory decision option 10b). These rules are reaffirmed in 2013 and 2014 regulations. 2013 regulations stated that in selecting agents an institution should exercise due diligence and conduct a suitability assessment of the proposed agents (regulatory decision option 10ai). 2013 regulation stated that the Bank is permitted to conduct on-site inspections of agents, and inspect the accounts and other documents of agents at any time to ensure compliance with the Laws of Kenya (regulatory decision option 10aii). Additionally, 2013 regulations specified that agents must clearly display the name of the institutions for which they are working, a list of banking services offered, a notice that services are provided subject to the availability of funds, a list of applicable fees and charges payable to the institution, the dedicated phone number customers can use to contact the institution, and the name, telephone number and location of the institutions branch that the agent reports to (regulatory decision option 10b).	Guidelines on Agent Banking (2010); The National Payment System Regulations (2013); Prudential Guidelines for Institutions Licensed Under the Banking Act (2013); The National Payment System Regulations (2014)
Early regulations (2010) stated that every month, institutions must submit information to the Central Bank with details of the nature, value, volume, and geographical distribution of operations and transactions (regulatory decision options 6ai & 6aiii). 2013 regulations require e-money issuers to report to the bank monthly on the physical address, GPS coordinate, postal address, physical address and telephone number of each of its agents. Regulation from this year also stated that the application for agent banking (with agents names, physical locations, GPS co-ordinates, postal addresses, and telephone numbers, as well as the total population and economically active population for the areas in which they will operate) should be updated and submitted on a yearly basis with the agent banking renewal application (regulatory decision options 6ai & 6aii). The most recent regulation (2014) reaffirms that payment service providers should maintain records containing agents' names, physical addresses, postal addresses, and telephone numbers (regulatory decision option 6ai).	Guidelines on Agent Banking (2010); E-Money Regulation (2013); The National Payment System Regulations (2013); Prudential Guidelines for Institutions Licensed Under the Banking Act (2013); The National Payment System Regulations (2014)
No relevant regulations were found on this topic.	
No relevant regulations were found on this topic.	
E-money is not a deposit within the meaning of the Banking Act, the Microfinance Act, or the SACCO Societies Act and is not subject to any deposit protection.	E-Money Regulations (2013)
	be in place that at a minimum contain methods for identifying agents, initial due diligence procedures, regular due diligence checks and their specified intervals, and a list of warning signals and corrective actions (regulatory decision options 10ai & 10aii). 2010 regulation also state that institutions should ensure that a channel of communication exists through which customers may verify the authenticity of an agent, its location and the validity of the agents banking business. If requested by a customer, an agent should show a copy of their bank approval letter, appointment letter from the institution, and the license for the commercial activity the agent is undertaking (regulatory decision option 10b). These rules are reaffirmed in 2013 and 2014 regulations. 2013 regulations stated that in selecting agents an institution should exercise due diligence and conduct a suitability assessment of the proposed agents (regulatory decision option 10ai). 2013 regulation stated that the Bank is permitted to conduct on-site inspections of agents, and inspect the accounts and other documents of agents at any time to ensure compliance with the Laws of Kenya (regulatory decision option 10aii). Additionally, 2013 regulations specified that agents must clearly display the name of the institutions for which they are working, a list of banking services offered, a notice that services are provided subject to the availability of funds, a list of applicable fees and charges payable to the institution, and the name, telephone number and location of the institutions branch that the agent reports to (regulatory decision option 10b). Early regulations (2010) stated that every month, institutions must submit information to the Central Bank with details of the nature, value, volume, and geographical distribution of operations and transactions (regulatory decision options 6ai & 6aiii). 2013 regulations require e-money issuers to report to the bank monthly on the physical addresses, and telephone numbers, as well as the total populatio

Type of regulations	Description	Regulation
Know Your Customer Requirements	Most regulations require the same KYC requirements as traditional banks: A 2015 regulation allows customers to be identified through a valid international passport, National Identity card, permanent voter's card, or driver's license when opening an account (regulatory decision option 1ai). For transactions, early regulation (2007) required POS scanners to be updated to include Biometric Authentication in the form of fingerprint reader/scanners. It also required cardholders to present authentication to a merchant when requested. A 2013 regulation allows customers to be identified with an ID, PIN, password, payment card, secret code, or secret message when conducting transactions. This was reiterated in 2015. Further 2015 regulation stipulates that PINs shall be encrypted at point of entry on a mobile money user interface. It also states that pull-based transactions (credits through a mobile money solution) must be authorized by the account holder via a verifiable mode before the transaction is consummated. A 2016 regulation states that customers are required to show a document confirming their identity if requested by a merchant. POS are required to utilize Payment Card Industry PIN Transaction Security (PCI PTS) in accordance with the PCI Point-to-Point Encryption (P2PE) Solution Requirements (regulatory decision option 1aii). Other regulations allow less stringent KYC for mobile money accounts: A 2013 regulations distinguishes between KYC requirements for three levels of accounts. Customers are required to provide basic information, such as a passport photo, name, place, and date of birth, gender, address, telephone number, etc. when opening low-value accounts (level 1) and medium-value accounts (level 2), and are required to comply with all KYC requirements when opening high-value accounts are not required to provide Bank Verification Numbers when opening an account as part of the KYC documentation, though it is mandatory for Level 2 and 3 accounts (regulatory decision option 1bi). For transactions, a 2014	Guidelines on Point-of-Sale (POS) Card Acceptance Services (2007); Circular on Introduction of Threetired Know Your Customer Requirements (2013); Guidelines for the Regulation of Agent Banking and Agent Banking Relationships in Nigeria (2013); Circular on Exposure Draft on the Framework for Licensing Super Agents (2014); Regulatory Framework for Mobile Money Services in Nigeria (2015); Guidelines on Mobile Money Services in Nigeria (2015); Guidelines on International Mobile Money Remittance Service in Nigeria (2015); Guidelines on Operations of Electronic Payment Channels in Nigeria (2016); Review of Daily MM Wallet Transaction & BVN Requirement for Mobile Money Wallet Holders (2017)

Caps & Fees

Four regulations relate to fees charged by the financial services provider: (1) a 2014 regulation creates a minimum fee for cashin transactions (N35) and for cash-out transactions (N50) (regulatory decision option 2aii); (2) a 2014 regulation states that fees for remote-on-us ATM cash withdrawal are N65 per transaction, though the first three transactions in a given month are free (regulatory decision option 2c); (3) a 2015 regulation states that no airtime deductions shall be made in respect of charges on any transaction (regulatory decision option 2c), and (4) a 2016 regulation stipulates that fees for transactions must be agreed upon by service providers and financial institutions (regulatory decision option 2ai).

Early regulation (2007) outlined the distribution of fees for transactions and prohibited agents from charging an additional fee to customers for using their cards. A 2013 regulation states that agents cannot charge fees directly and that they are required to post all fees payable to the financial institution. (A 2014 regulation reiterates that agents are not permitted to charge customers fees directly.) (regulatory decision option 2bi) Recent regulation (2016) stipulates that fees for transactions must be agreed upon by service providers and financial institutions. Merchant limits should be based on the volume of business and type of commercial activities performed (regulatory decision option 2bi). The same regulation prohibits merchants from charging customers who use a card a different price (regulatory decision option 2bii).

A 2013 regulation created distinct caps on balances and transactions for Low-Value Accounts (Level 1), Medium-Value (Level 2), and High-Value (Level 3) accounts. There is no minimum balance requirement when opening accounts for any of the levels. Another 2013 regulation states that limits on customer transactions and withdrawals are required to be included in contracts between agents and financial institutions.

A 2014 regulation stipulates that the maximum balance that can be held by an agent is N1,000,000 (regulatory decision option 3b).

A 2014 regulation also creates caps on transactions for Low Security Accounts, Basic Security Accounts, Moderately Secure Online Fund Transfers, and Highly Secured Online Fund Transfers, and a 2015 regulation states that outbound remittances cannot exceed US\$100 per week.

More recent regulation (2017) raises the cumulative balance limits and daily cumulative transaction limits on Level 1-3 Accounts (regulatory decision option 3c).

Institution types that can use agents (bank/nonbank) for financial transactions Accounts (regulatory decision option 3c).

A 2007 regulation authorized CBN licensed financial and non-financial institutions to provide banking services through merchants (regulatory decision options 5ai and 5bi). Subsequent regulations in 2013 and 2015 reiterated that banks can engage in agent banking and mobile money initiatives. In the bank-led model, a financial institution or a consortium of financial institutions can be the lead initiator (regulatory decision option 5ai). Regulations in 2013 and 2015 reiterated that non-banks (but not telecommunications companies) can engage in agent banking and mobile money initiatives. In the non-bank led model, the lead initiator must be an organization licensed by the CBN to provide mobile money services (regulatory decision option 5bi). A 2015 regulation states that the

Card Acceptance Services (2007): Circular on Introduction of Threetired Know Your Customer Requirements (2013): Guidelines for the Regulation of Agent Banking and Agent Banking Relationships in Nigeria (2013): Circular on Exposure Draft on the Framework for Licensing Super Agents (2014); Circular on the introduction of fees on remoteon-us ATM withdrawal transactions (2014); Circular on the Review of Operations of the NIBBSS Instant Payment (NIP) System and Other Epayment **Options with Similar Features** (2014); Guidelines on International Mobile Money Remittance Service in Nigeria (2015); Guidelines on Mobile Money Services in Nigeria (2015); Guidelines on Operations of Electronic Payment Channels in Nigeria (2016); Review of Daily MM Wallet Transaction & BVN Requirement for Mobile Money Wallet Holders (2017)

Guidelines on Point-of-Sale (POS)

Guidelines on Point-of-Sale (POS) Card Acceptance Services (2007); Guidelines for the Regulation of Agent Banking and Agent Banking Relationships in Nigeria (2013); Guidelines on Mobile Money Services in Nigeria (2015); Regulatory Framework for Mobile Money Services in Nigeria (2015)

	telecommunications company led model is not permitted in Nigeria (regulatory decision option 5bii).	
Use of exclusive agents	Early regulation (2007) prohibited exclusivity in all areas of payment service including issuing, acquiring, processing, and sale and maintenance of hardware and software, among others. This prohibition was also reiterated in 2016 regulation. A 2013 regulation prohibited exclusive contracts between financial institutions and agents specifically. Agents can provide services to as many financial institutions as they have capacity to accommodate (regulatory decision option 8ci).	Guidelines on Point-of-Sale (POS) Card Acceptance Services (2007); Guidelines for the Regulation of Agent Banking and Agent Banking Relationships in Nigeria (2013); Guidelines on Operations of Electronic Payment Channels in Nigeria (2016)
Interoperability	Interoperability between multiple mobile money providers: Early regulation (2007) stated that all switch companies must be interoperable with the Nigeria Central Switch and Payment Terminal Service Aggregator. Regulations in 2012, 2014, 2015, and 2016 further reiterated that all mobile money operators are required to connect to the National Central Switch to ensure interoperability between platforms. One of the 2015 regulations specifically stated that mobile network operators are responsible for ensuring interconnectivity between mobile money operators. A 2016 regulation stipulates that all POS terminals must be connected to the Payments Terminal Service Aggregator and all transactions must be routed through the Payment Terminal Service Aggregator (regulatory decision option 4ai).	Guidelines on Point-of-Sale (POS) Card Acceptance Services (2007); Timeline for Interoperability and Interconnectivity (2012); Guidelines for the Regulation of Agent Banking and Agent Banking Relationships in Nigeria (2013); Circular on Exposure Draft on the Framework for Licensing Super Agents (2014); Regulatory Framework for Mobile Money Services in Nigeria (2015); Guidelines on Mobile Money Services in Nigeria (2015); Guidelines on International Mobile
	Interoperability between mobile money providers and banks: Early regulation (2007) required POS terminals to accept any card issued by any Nigerian bank and prohibited service providers from favoring any card over another. This was reiterated in a more recent (2016) regulation, which requires POS terminals to accept all cards at all merchant locations. A 2013 regulation states that there shall be an end-to-end connection from a financial institutions to its agents, in compliance with the industry standard hardware and software technology (regulatory decision option 4bi).	Money Remittance Service in Nigeria (2015); Guidelines on Operations of Electronic Payment Channels in Nigeria (2016)
Agent selection (exclusion & pre-existing requirements)	Early regulation (2007) only allowed Payments Terminal Service Providers (PTSP) licensed by the CBN to deploy, maintain and provide support for POS terminals. Criteria to become a PTSP, and performance requirements for PTSP, are to be defined by the CBN and performance is to be reviewed annually. This was reiterated in 2016. A 2013 regulation states that agents must have been in a legitimate commercial activity for a minimum of 12 months prior to applying to be an agent. It also lists the information that an entity must submit to the financial institution prior to becoming an agent. A 2014 regulation outlines the requirements that a Super-Agent must meet. Super-Agents must renew agreements with their agents every two years. A 2015 regulation requires e-payment operations to obtain CBN approval or a license from CBN. Further 2015 regulation clarifies what an agent needs to obtain a mobile money license. Additionally it states that an agent must pay a N100,000.00 non-refundable application fee to CBN and provide evidence of shareholders' fund of N2 billion. Another 2015 regulation states the requirements that institutions seeking to provide international mobile money remittance service must meet (regulatory decision option 7ai).	Guidelines on Point-of-Sale (POS) Card Acceptance Services (2007); Guidelines for the Regulation of Agent Banking and Agent Banking Relationships in Nigeria (2013); Circular on Exposure Draft on the Framework for Licensing Super Agents (2014); Guidelines on International Mobile Money Remittance Service in Nigeria (2015); Sanctions on Erring Banks/e-Payment Service Providers for Infractions of Payment System Rules and Regulations (2015); Guidelines on Mobile Money Services in Nigeria (2015); Guidelines on Operations of Electronic Payment Channels in Nigeria (2016)
	A 2013 regulation states that limited liability companies, sole proprietorships, partnerships, cooperative societies, public entities, trusts and any entity prescribed by the CBN are permitted to be agents (regulatory decision option 7aii). The same regulation distinguishes three agent classifications: (1)	

super-agents, who can oversee other agents; (2) sole-agents, who operate independently, and; (3) sub-agents, who operate under a super-agent (regulatory decision option 7aiv) and states that faith-based or non-profit organizations, non-governmental organizations, educational institutions and bureau-de-change are not permitted to be agents. A 2017 regulation states that card schemes and entities with management contract with a card scheme are not permitted to become PTSP, and no bank should have a controlling share in any PTSP (regulatory decision option 7b).

Agent Services

A 2014 regulation requires all agent locations to provide CICO services for inter-scheme payments. A 2015 regulation limits transactions to the receipt of monies transmitted via mobile phones and other hand held devices to persons residing in Nigeria and foreign visitors (regulatory decision option 9aii).

A 2013 regulation prohibits agents from giving any guarantee, offering banking services on their own accord, providing any banking service not included in their contract with a financial institution, opening accounts, granting loans, undertaking check deposit and encashment of checks, transacting in a foreign currency, or providing cash advances (*regulatory decision option* 9b).

Guidelines for the Regulation of Agent Banking and Agent Banking Relationships in Nigeria (2013); Circular on Exposure Draft on the Framework for Licensing Super Agents (2014); Guidelines on International Mobile Money Remittance Service in Nigeria (2015)

Agent Reporting Requirements

Early regulation (2007) requires all industry stakeholders who process and/or store cardholder information to ensure that their terminals, applications and processing systems comply with the relevant standards. Each vendor must provide valid certificates showing compliance with these standards, and must regularly review status of all its terminals to ensure they are still compliant as standards change. These regulations were reiterated in 2016 (regulatory decision option 6aiii). The same 2007 regulation states that NIBSS will provide Acquirers and Payment Terminal Service Providers and their merchants the ability to view transactions and monitor performance of their devices. It states that the Payments Terminal Service Aggregator will monitor the availability and transaction traffic of all POS terminals, and will report on POS terminal performance and transaction trends to the Central Bank. A 2013 regulation stipulates that annual reports should include all agent banking operations and activities and a 2014 regulation requires Super-Agents to submit monthly information on all agent operations to the CBN, including the nature, value, and volume of transactions. Three regulations released in 2015 addressed reporting on mobile money. They require mobile money operators to include all mobile money activities in their annual reports, mobile money operators to send daily live transaction data to NIBSS in an XML format, and international mobile money remittance service providers to submit monthly to the CBN the nature, value, and volume of all transactions. The most recent regulation (2016) requires Acquirers to report on the volume and value of transactions to the CBN on a monthly basis. It also reiterates that the Payments Terminal Service Aggregator should provide reporting on POS terminal performance and transaction trends to the CBN (regulatory decision option 6aiii).

A 2013 regulation requires entities to submit their physical location, postal address, telephone number and working hours to the financial institution when applying to become an agent. . The financial institution is required to publish an up-to-date list of agents and their locations on its website and in its annual reports. Another regulation (2014) requires Super-Agents to provide the financial institution the names of agents and their

Guidelines on Point-of-Sale (POS) Card Acceptance Services (2007); Guidelines for the Regulation of Agent Banking and Agent Banking Relationships in Nigeria (2013); Circular on Exposure Draft on the Framework for Licensing Super Agents (2014); Guidelines on Mobile Money Services in Nigeria (2015); Guidelines on International Mobile Money Remittance Service in Nigeria (2015); Circular on the implementation of the Global Mobile Payments Monitoring and Regulation System (2015); Guidelines on Operations of Electronic Payment Channels in Nigeria (2016)

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	locations (regulatory decision option 6ai).	
	A regulation from 2016 requires banks to maintain a register of all ATMS, including location, identification, and serial number of the machine. All institutions operating ATMS must file a list of all ATM locations with the CBN (regulatory decision option 6bi).	
Authentication and Due Diligence	Early regulation (2007) stated that all POS terminals must comply with standards and best practices specified by various card schemes. Vendors must provide valid certificates showing compliance with these standards. This was reiterated in more recent regulations (2016). A 2013 regulation instructs financial institutions to ensure that any institutional risk management program covers the agent-related risks. Another 2013 regulation states that the CBN should monitor the relationships between financial institutions and agents to ensure compliance with guidelines and regulations on an annual basis. 2014 regulation states that Super-Agents should submit monthly to the CBN information on the nature and number of customer complaints and remedial measures taken (regulatory decision option 10aii).	Guidelines on Point-of-Sale (POS) Card Acceptance Services (2007); Guidelines for the Regulation of Agent Banking and Agent Banking Relationships in Nigeria (2013); Circular on Introduction of Three- tired Know Your Customer Requirements (2013); Circular on Exposure Draft on the Framework for Licensing Super Agents (2014); Circular on the implementation of the Global Mobile Payments Monitoring and Regulation System
	A 2013 regulation states that financial institutions need clear policies and due diligence processes for selecting agents, including a list of minimum standards. Financial institutions must have a signed agreement with each agent (reiterated in 2015 regulation). A 2014 regulation stipulates that applications for Super-Agent licenses should include qualifying criteria for engaging agents (regulatory decision option 10ai).	(2015); Guidelines on Operations of Electronic Payment Channels in Nigeria (2016)
	A 2013 regulation stipulates that agents clearly display signs which indicate that they are providing services on behalf of a financial institution, and the financial institution's contact information. Financial institutions should provide a communication channel for customers and agents to lodge complaints. This channel can also be used to verify the authenticity and identity of an agent, its physical location and the validity of its agent banking business. A subsequent 2014 regulation also states that customers should be provided a channel, such as web, SMS, USSD short-code, etc., through which they can verify the authenticity of an agent (regulatory decision option 10b).	
Different Agent Classes	Early regulations (2007) state rules for the following classes: merchant acquirers; payment terminal service providers; PoS terminal owners; payments terminal service aggregators; card issuers; merchants; card associations and card schemes; and switching companies (regulatory decision option 11). These classes are affirmed in 2016 regulations.	Guidelines on Point-of-Sale (POS) Card Acceptance Service (2007); Guidelines for the Regulation of Agent Banking and Agent Banking Relationships in Nigeria (2013); Circular on Exposure Draft on the Framework for Licensing Super
	2013 regulations describe three agent classifications: superagents (they can oversee other agents) (i); sole-agent (independent agent); and (iii) sub-agents (operate under a super-agent) (regulatory decision option 11). 2014 further stipulate super-agents, which oversee agents, to have a minimum of 50 agents to be classified as a super-agent.	Agents (2014); Guidelines on Operations of Electronic Payment Channels in Nigeria (2016)
	No relevant regulations were found on this topic.	
Agent Compensation	No relevant regulations were found on this topic.	

Pakistan

Type of regulations	Description	Regulation
Know Your Customer Requirements	Regulation issued in 2016 states that for level 2 accounts, the highest class of accounts, institutions must fulfill all KYC requirements specified under AML/CFT Regulations and Guidelines issued by SBP (regulatory decision option 1ai). However, regulation issued in this same year outlines less stringent KYC procedures for certain accounts (regulatory decision option 1bi). For level 0 accounts, customers must provide a verified SIM card, their CNIC, the institution must confirm customer information with NADRA, and the institution must capture and retain a photo of the CNIC and of the customer. For level 1/biometric accounts, in addition to level 0 requirements the institution must also confirm the customer's cell phone number. When opening an account, all customers must provide at a minimum: a) full name; b) CNIC/passport/NICOP/POC/ARC number; c) existing residential address, telephone numbers, and email; d) date of birth; e) nationality or place of birth; and f) source of earnings (regulatory decision option 1bi).	Branchless Banking Regulations (2016); Framework for Branchless Banking Agent Acquisition and Management (2016); Anti-Money Laundering and Combating the Financing of Terrorism (AML/CFT) Regulations for Banks & DFIs (2016)
Interoperability	A 2016 regulation states that that third party service providers (TPSPs) should have arrangements with peer institutions to allow for switching and routing of inter-bank mobile banking transactions (regulatory decision options 4ai & 4bi). The most recent regulation (2017) reaffirm this, stating that the licensee should be capable of switching and routing all interbank Wallet-to-Wallet and Wallet-to-bank account fund transfers from the branchless bank issuer to the acquirer through an Authorized Payment Service Operator (regulatory decision options 4ai & 4bi). Regulation aims to provide a level playing field for financial institutions and non-banks by introducing a neutral, third party model in which financial institutions and their partners can join together to create a sustainable mobile banking ecosystem. A third party service provider (TPSP) shall have arrangements with peer TPSPs for clearing, processing, routing and switching electronic transactions and inter-bank mobile banking transactions. TPSPs shall make available its network to all parties in the arrangement, based on criteria that is transparent and generally applicable to all institutions without discriminatory practices.	Branchless Banking Regulations (2016); Framework for Branchless Banking Agent Acquisition and Management (2016); Regulations for Technical Implementation of Mobile Banking (2016); Third Party Service Provider (TPSP) Licensing (2017)
Institution types that can use agents (bank/non- bank) for financial transactions	A 2016 regulation states that only bank-led models of branchless banking will be permitted in Pakistan. However, banks are able to implement branchless banking through either agency arrangements or through creating a joint-venture between a financial institution and a telecom operator/non-bank (regulatory decision option 5ai). All telecom operators having a valid license shall be eligible/entitled to offer technical services to authorized financial institution for provision of mobile banking services without obtaining a separate license for this purpose from PTA under one-to-one model. Mobile phone banking can be implemented using one-to-one, one-to-many, and many-to-many models.	Branchless Banking Regulations (2016); Regulations for Mobile Banking Interoperability (2016); Regulations for Technical Implementation of Mobile Banking (2016)

Use of exclusive agents	Two separate 2016 regulations indicate that one agent may provide services for and have arrangements with multiple banks as long as the agents have separate agreements with each (regulatory decision option 8bi). The one-to-one model (where a bank partners with a telecom operator or non-bank) does not necessarily require exclusivity. Therefore, one bank can have several one-to-one arrangements with many telecom operators or non-banks, or alternatively one telecom operator or non-bank can have several one-to-one arrangements with many banks, provided that such arrangements are under proper agency/service level agreements. One agent can provide services to multiple financial institutions (FI) provided the agent has a separate Service Level Agreement with each FI. Alternately, FIs may organize their agent network using open architecture so that the agents may serve other FIs' customers using infrastructure provided by one FI.	Branchless Banking Regulations (2016); Framework for Branchless Banking Agent Acquisition and Management (2016)
Agent selection (exclusion & pre-existing requirements)	Technology service providers do not face specific restrictions to become branchless banking agents, provided they meet the general criteria for becoming an agent. Regulation in 2016 stipulates that when establishing a new agent, a financial institution (FI) must establish procedures that define: various agent categories or the agent structure based on the types of branchless banking (BB) services they are allowed to offer; minimum selection criteria for each category of agent including business experience and financial position; and individuals/businesses eligible to provide BB services per the FI's policy (regulatory decision option 7ai).	Framework for Branchless Banking Agent Acquisition and Management (2016)
Agent Compensation	Regulations in 2016 stipulate the fee and revenue sharing structure shall be included in the Service Level Agreement contract (regulatory option 2d). The responsibility for supplying up-front and operational costs of branchless banking operations needs to be defined in the SLA as well.	Framework for Branchless Banking Agent Acquisition and Management (2016)
Agent Services	Agents should not offer any branchless banking services other than those specified in the agency agreement. The agent will not perform management functions, make management decisions, open level 2 accounts, or act or appear to act in the capacity equivalent to that of a member of management or an employee of the financial institution (regulatory decision option 9b).	Branchless Banking Regulations (2016); Framework for Branchless Banking Agent Acquisition and Management (2016)
Agent e-float	Regulations in 2016 state that contracts between a financial institutions and agents must specify suitable limits for cash holdings (regulatory decision option 9ai). The financial institution may devise a policy whereby agents shall be required to maintain sufficient cash on hand and money in their branchless banking accounts to provide uninterrupted services to customers. In all branchless banking models, the customer account must reside with some financial institution, each transaction must hit the actual customer account, and no actual monetary value may be stored on the mobile-phone or technology service provider's service.	Branchless Banking Regulations (2016); Framework for Branchless Banking Agent Acquisition and Management (2016)
Different Agent Classes	A 2016 regulation outlines permissible agent models, including: Super Agents (well-established owned or franchised retail outlets, or a distribution setup; responsible for managing and controlling subagents; may include fuel distribution companies, Pakistan Post, courier companies, chain stores etc.); Direct Agents (may include large- to medium-sized stores etc., which have a separate agency/Service Level Agreement with the financial institutions); Sub Agents (branches/outlets or franchised locations managed by a super-agent and not directly controlled by the financial institutions on a day-to-day basis)(regulatory decision option 11). Additionally agents may	Branchless Banking Regulations (2016); Framework for Branchless Banking Agent Acquisition and Management (2016)

operate one of the following models: One-to-one (where a bank partners with a telecom operator or non-bank); one-to-many (where a bank offers branchless banking through the mobile connection of any telecom operator); and many-to-many (where many banks and many telecom operators or non-banks jointly offer services to all bankable customers).

Caps & Fees

Regulation from 2016 stipulates that charge, fee, and income sharing structures must be agreed upon among the among the authorized financial institution, third party service providers, and telecom operator in a transparent manner prior to operation (regulatory decision option 2ai). This structure should be commensurate with the mobile banking services standards and disclosed to the consumers.

Branchless Banking Regulations (2016); Framework for Branchless Banking Agent Acquisition and Management (2016); Regulations for Mobile Banking Interoperability (2016)

A 2016 regulation stipulates that the maximum balance permitted on a level 0 account is Rs. 200,000; and for a level 1/biometric account it is Rs. 400,000 (regulatory decision option 3a). Regulation from this year also outlines maximum daily, monthly, and yearly transaction amounts for level 0 and level 1 accounts (regulatory decision option 3c). limits for level 0 accounts are lower than those for level 1. Maximum balance: Rs. 200,000 for level 0; 400,000 for level 1/biometric. Maximum transactions: Rs. 25,000 per day, 40,000 per month, and 200,000 per year for level 0; 50,000 per day, 80,000 per month, and 800,000 per year for level 1/biometric; the financial institution can determine limits for level 2 account: 50,000 per month for account-to-person (non-accountholders) or person (nonaccountholders)-to-IBFT transfers with bio-verification and 25,000 without; and 50,000 per month for person-to-person (non-accountholders) with bio-verification and 15,000 without.

Financial institutions are able to determine their own limits for level 2 accounts. Contracts between a financial institution and their agents must specify all limits.

Agent Reporting Requirements

A 2016 regulation stipulates that financial institutions must provide information on its branchless banking agent network to SBP, including the full name of the business owner and their contact details, including their business address (regulatory decision option 6ai). The following minimum information may be obtained and verified by the financial institution (FI) for each agent: full name of business owner and CNIC and contact details; integrity, personal qualities, and reputation of the business owner; financial position/net worth and credit profile of the owner; knowledge, experience, capability, and competency of the potential agent to conduct agent banking services as an acceptable quality level; ability of the agent to control operational risks related to agent banking; information of manager of the shop/outlet and level of education of the owner; details of persons at agents shop, who shall provide branchless banking (BB) services to the customers; business address; and nature of commercial activity of the business and ongoing status. To ensure their focus on expanding and creating new retail footprint, geographical spread and overall BB outlet density, FIs shall formulate policy on the sharing of BB agents with other FIs. However, FIs shall follow the limits/percentage on BB agent sharing as defined by State Bank of Pakistan (SBP) from time to time.

Framework for Branchless Banking Agent Acquisition and Management (2016)

Agent Authentication and Due Diligence	Regulation from 2016 stipulates that financial institutions are responsible for having clear, well documented Authentication and Due Diligence policies, including initial due diligence (regulatory decision option 10ai). The following minimum information should be obtained for all agents: full name of business owner and CNIC and contact details; integrity, personal qualities, and reputation of business owner; financial position/net worth of owner; knowledge, experience, capability, and competency of the potential agent; and ability of the agent to control operational risks. 2016 regulations stipulate that as part of the application process for branchless banking services, financial institutions must include information on agent liquidity management procedures. Additionally, financial institutions must ensure that the scope and coverage of their internal audit function has been expanded to commensurate with complexity and risks inherent in agent activities. Financial institutions are responsible for having clear, well documented Authentication and Due Diligence policies, including regular due diligence checks to be performed at specific intervals (regulatory decision option 10aii). The State Bank of Pakistan (SBP) shall carry out inspection and/or diagnostic studies of branchless banking service providers and their agents (regulatory decision option 10aii).	Branchless Banking Regulations (2016); Framework for Branchless Banking Agent Acquisition and Management (2016); Regulations for Mobile Banking Interoperability (2016)
Other: Alternative Services of Branchless Banking	Permissible models include: 1. Using technologies not limited to mobile phone, 3G/4G spectrum, GPRS, POS terminals and internet banking etc.; 2. Issue ATM/debit card for branchless banking customers (domestic transactions only); and 3. Offer international transaction facility on ATM/debit cards to Level 2 account holders.	Branchless Banking Regulations (2016)
Other: Location of cash-in and cash-out	Customers can use a variety of options including bank-branch counters, ATM machines, and authorized agent locations.	Branchless Banking Regulations (2016)
Other: Opening account remotely	Account shall be opened against verified SIM Card. Customer shall visit bank branch / agent for initial cash deposit. Mobile number shall remain in the name of same person, who is requesting to open the account. In line with National Financial Inclusion Strategy to promote financial inclusion in the country, it has been decided to allow opening of remote accounts for Level 0 customers.	Branchless Banking Regulations (2016)
Other: Security	Financial institutions shall design the system to automatically stop the transaction if tried beyond the assigned limit.	Framework for Branchless Banking Agent Acquisition and Management (2016)

Tanzania

Type of	Description	Regulation
regulations		
Know Your Customer Requirements	A 2007 regulation states that the bank or financial institution shall at minimum ensure effective Know Your Customer principles be applied using reliable methods for verifying the identity and authorization of new customers, as well as authenticating the identity and authorization of established customers seeking to initiate electronic transactions and conduct business over the internet (regulatory decision options 1ai and 1aii). In 2010, a regulation stated that an approved banking institution should ensure that agents identify customers with at least two factor authentications like IDs, PINs, passwords, ATM card, secret code or secret message while performing any transaction requiring a transaction (regulatory decision option 1aii). In 2015, two regulations stated more specifically that electronic money issuers shall comply with all Anti-Money Laundering and Combating the Financing of Terrorism identification requirements for all mobile money and cash-in transactions (regulatory decision option 1aii), and one of the 2015 regulations also stated that all mobile money and cash-in transfers require a registered phone number; and all cash-out transfers require a verified ID (regulatory decision option 1aii). The requirement to comply with two-factor authentication for transactions was reinforced in a 2017 regulation (regulatory decision option 1aii).	Electronic Payment Schemes Guidelines (2007); Guidelines on Agent Banking for Banking Institutions (2013); Government Notice No. 245, The Foreign Exchange Act, Cap. 271 (2015); The Payment Systems (Electronic Money) Regulations (2015); Guidelines on Agent Banking for Banks and Financial Institutions (2017)
Interoperability	A 2007 regulation states that electronic payment schemes shall be open systems capable of becoming interoperable with other payment systems in the country and shall comply with minimum international acceptable standards (regulatory decision options 4ai & 4bi).	Electronic Payment Schemes Guidelines (2007)
Institution types that can use agents (bank/non- bank) for financial transactions	A 2013 regulation allows banks to conduct business through agents (regulatory decision option 5ai). One 2015 regulation allows electronic money issuers to conduct business through agents (regulatory decision option 5bi). A different 2015 regulation states that Class B bureau de change entities may conduct money transfer only through banks, financial institutions, mobile network operators, or international money transfer agents (regulatory decision options 5ai & 5bi). A 2017 regulation reinforced the 2013 regulation, allowing banks to conduct business through agents (regulatory decision option 5ai).	Guidelines on Agent Banking for Banking Institutions (2013); The Payment Systems (Electronic Money) Regulations (2015); Government Notice No. 245, The Foreign Exchange Act, Cap. 271 (2015); Guidelines on Agent Banking for Banks and Financial Institutions (2017)
Use of exclusive agents	A 2013 regulation states the contracts between agents and financial institutions may not be exclusive. This was reinforced in both 2015 and 2017 regulations (regulatory decision option 8ci)	Guidelines on Agent Banking for Banking Institutions (2013); The Payment Systems (Electronic Money) Regulations (2015); Guidelines on Agent Banking for Banks and Financial Institutions (2017)
Agent selection (exclusion & pre-existing requirements)	A 2013 regulation states that a person intending to be appointed as an agent is required to have operated a lawful commercial activity for at least two years preceding the date of the application to become an agent and such commercial activity must be ongoing; this regulation also lists the types of entities that may serve as agents (<i>regulatory decision option</i> 7ai). This regulation also states that entities cannot become agents if their sole activity is agent banking (<i>regulatory decision option</i> 7b). A 2017 reinforces the 2013 regulation, but shortens the	Guidelines on Agent Banking for Banking Institutions (2013); Guidelines on Agent Banking for Banks and Financial Institutions (2017)

	amount of time operating a commercial activity from two years to 18 months (regulatory decision option 7ai).	
Agent Compensation	A 2017 regulation states that written agreement between agent and the financial institution/bank must mention the set fees or revenue sharing structure (regulatory decision option 2d).	Guidelines on Agent Banking for Banks and Financial Institutions (2017)
Agent Services Agent e-float	A 2013 regulations stipulates that an agent shall not: 1) carry out transactions in currencies other than Tanzanian shillings; 2) offer guarantees to bank clients; or 3) open accounts, grant loans or advances, or carry out any appraisal functions. A 2015 regulation adds that agents are not allowed to send person-toperson payment transfers. A 2017 regulation adds 13 additional restricted activities (regulatory decision option 9b). A 2015 regulation established maximum daily balance (float) of	Guidelines on Agent Banking for Banking Institutions (2013); The Payment Systems (Electronic Money) Regulations (2015); Guidelines on Agent Banking for Banks and Financial Institutions (2017) The Payment Systems (Electronic
Agent e-noat	100,000,000 Tanzania Shillings (regulatory decision option 9ai).	Money) Regulations (2015)
Different Agent Classes	Agent classes include: Tier I; Tier II; Small and Medium Enterprises (Tier III); Retail Agents (Tier IV); Super Agents; and Large Businesses (<i>regulatory decision option</i> 11). Additionally there are two classes of bureaus de change: class A and class B.	The Payment Systems (Electronic Money) Regulations (2014); Excise Duty on Charges and Fees (2015)
Caps & Fees	A 2013 regulation stipulates that agents may not charge fees to customers (regulatory decision option 2bii). A 2015 regulation provides maximum caps on both balances and transactions, and differentiates these caps based on tier 1, tier 2, and small business/enterprise (regulatory decision option 3a). A 2017 regulation requires that agents and the financial institution/bank must mention the set fees or revenue sharing structure within the agreement (regulatory decision option 2ai). A 2014 requires that banks, financial institutions, and telecommunications service providers pay the Tanzania Revenue	Guidelines on Agent Banking for Banking Institutions (2013); Excise Duty on Charges and Fees (2014); The Payment Systems (Electronic Money) Regulations (2015); Guidelines on Agent Banking for Banks and Financial Institutions (2017)
	Authority 10% of the total amount of money collected from customers as charges or fees.	
Agent Reporting Requirements	A 2013 regulation states that banks and financial institutions must publicize a list of all their agents and locations (regulatory decision option 6ai). A 2015 regulation states that electronic money issuers shall maintain and submit to the Bank of Tanzania records of appointed agents that shall include agents and addresses and GPS coordinates; the Bank of Tanzania may then develop a public registry of agents to share online (regulatory decision option 6ai). A separate 2015 regulation states that Class A bureau de change entities shall submit to the Bank of Tanzania a certified copy of their lease agreement or title deed of the premises on which the business will be conducted (regulatory decision option 6ai). Finally, a 2017 regulation permits an approved bank or financial institution to carry out periodic physical visits to ensure that agents operate strictly within the requirements of the law, guidelines, and the agent agreement; an approved bank or financial institution shall report its agent banking activities to the Bank in the form and frequency prescribed by the Bank (regulatory decision options 6ai and 6aiii).	Guidelines on Agent Banking for Banking Institutions (2013); The Payment Systems (Electronic Money) Regulations (2015); Government Notice No. 245, The Foreign Exchange Act, Cap. 271 (2015); Guidelines on Agent Banking for Banks and Financial Institutions (2017)
Agent Authentication and Due Diligence	A 2007 regulation states that banks and financial institutions shall at minimum establish formal policies and procedures for identifying appropriate methodologies to ensure agents are properly authenticated (regulatory decision option 10aii). A 2013 regulation states that an approved banking institution shall conduct assessment and due diligence (Know-Your-Agent) on the business owner and business operations to ensure that an agent is well established, having good reputation and enjoying the confidence of the community (regulatory decision option 10ai). In 2014 regulation states that a bureau de change entity shall	Electronic Payment Schemes Guidelines (2007); Guidelines on Agent Banking for Banking Institutions (2013); Excise Duty on Charges and Fees (2014); The Payment Systems (Electronic Money) Regulations (2015); Guidelines on Agent Banking for Banks and Financial Institutions (2017)

not commence business until the business premises, security facilities, communication facilities, processing equipment and accounting systems are in place and have been inspected, reviewed, and approved by the Bank of Tanzania (regulatory decision option 10ai); this regulation also requires that bureau de change entities display a copy of the valid license in a conspicuous place at each of its premises (regulatory decision option 10b). In 2015, a regulation states that electronic money issuers shall, prior to appointing agents, submit to the Bank of Tanzania documentation of the proposed agents, which includes procedures for appointing agents as well as an ongoing a due diligence plan (regulatory decision options 10ai and 10aii). A 2017 regulation states that an approved bank or financial institution shall put in place clear, well documented agent Due Diligence policies and procedures. The procedures shall contain, at a minimum new agent take-on procedures and initial due diligence (regulatory decision option 10ai) as well as regular due diligence checks to be performed in intervals (regulatory decision option 10aii).

Uganda

Type of	Description	Regulation
regulations		
Know Your Customer Requirements	In 2013, Uganda required the entity conducting customer verification should require at least one of the following documents to verify the identity of the customer: a valid passport, driving permit, identity card, voter's card, financial card, local administration letter or business registration certificates (regulatory decision option 1a). Additionally, every transaction shall require authentication by a customer's PIN. Recent regulations (2017) add that financial institutions shall ensure that every transaction requires at least two-factor authentication (regulatory decision option 1a).	Mobile Money Guidelines (2013); The Financial Institutions (Agent Banking) Regulations (2017)
Interoperability	Early regulations (2013) stated that mobile money service providers shall utilize systems capable of becoming interoperable with other payment systems in the country and internationally, in order to facilitate full interoperability (regulatory decision options 4ai & 4bi). This agreement must not contain exclusivity clauses. Mobile money service providers may establish partnerships with multiple licensed institutions and vice versa.	Mobile Money Guidelines (2013)
Institution types that can use agents (bank/non- bank) for financial transactions	2016 regulation stated that a person licensed to carry out financial institution business may carry out the licensed business through an agent (regulatory decision option 5bi). Recent regulations (2017) state that with written approval by the Central Bank, a financial institution (FI) can conduct agent banking. An FI includes: a commercial bank, merchant bank, mortgage bank, post office savings bank, credit institution, a building society, an acceptance house, a discount house, a finance house, an Islamic financial institution or any institution which by regulations issued under the Act is classified as a financial institution by the Central Bank (regulatory decision options 5ai & 5bi).	The Financial Institutions (Amendment) Act (2016); The Financial Institutions (Agent Banking) Regulations (2017)
Use of exclusive agents	2013 regulation stated that the mobile money service provider selects and manages mobile money agents, and the agent agreement should not provide for exclusivity (regulatory decision option 8ci). 2017 regulation specifies that the agreement between a financial institution and an agent shall not include a provision prohibiting the agent from conducting agent banking with other financial institutions (regulatory decision option 8ci). An agent may provide agent banking for other approved financial institutions provided that a) the agent has entered into an agency agreement with each financial institution and b) the agent has the capacity to manage the transactions for the different financial institutions (regulatory decision option 8ci).	Mobile Money Guidelines (2013); The Financial Institutions (Agent Banking) Regulations (2017)
Agent selection (exclusion & pre-existing requirements)	Recent regulation (2017) stipulates that a person appointed as an agent must: 1) operate an account at a financial institution licensed by the Central Bank for consecutive six months prior to the application; 2) have a licensed business; 3) have a physical address; 4) have adequate and secure premises; and 5) been engaged in the licensed business for at least 12 months (regulatory decision option 7ai). 2017 regulations also state that a person shall not be appointed as an agent unless that person is: 1) a sole proprietorship; 2) a partnership; 3) a company; 4) a cooperative society; 5) a microfinance institution; or 6) an entity approved by the Central Bank (regulatory decision option 7aii). Recent regulations (2017) further state that a financial	The Financial Institutions (Agent Banking) Regulations (2017)

	institution shall not conduct agent banking with its employees, affiliates, or associates (regulatory decision option 7b).	
Agent Compensation	2013 regulations stated that agency commission should be paid to the agents by the mobile money service provider (regulatory decision option 2d). Recent regulations (2017) state that a financial institution shall compensate agents for the services rendered, as per the contract (regulatory decision option 2d). If the financial institution is a mobile money service provider, this provider will be responsible for paying commission to the agent.	Mobile Money Guidelines (2013); The Financial Institutions (Agent Banking) Regulations (2017)
Agent Services	Recent regulations (2017) state that an agent shall not use as part of its name, words like "bank," "financial institution," "financial intermediary," or their derivatives or any word suggesting that the agent is itself a financial institution (regulatory decision option 9b). Furthermore, an agent shall not: a) offer financial institution businesses on its own accord except where it is the agent's principal business at the time of engagement; b) continue with the agency banking with criminal record; c) provide or hold out to be providing any banking service that is not in the agreement; d) operate a transaction when the system is down, there is a communication failure, or the customer is absent; e) carry out a transaction when a receipt indicates the transaction cannot be generated; f) charge fees directly to customers; g) undertake check deposits or encashment; h) distribute checkbooks; i) distribute debit cards, credit cards, or PIN mailers; j) conduct foreign exchange transactions; k) subcontract other person to provide agency banking services; l) provide agency banking at a location other than the physical agent address; m) open accounts, grant loans or advances, or carry out appraisal functions except as may be permitted by law; or n) be a guarantor to the financial institution's clients (regulatory decision option 9b).	The Financial Institutions (Agent Banking) Regulations (2017)
Agent e-float	No relevant regulations were found on this topic.	
Different Agent Classes	No relevant regulations were found on this topic.	
Caps & Fees	Early regulations (2013) stated that the agent shall clearly display in a conspicuous place: 1) All applicable charges and fees for the mobile money service and 2) a written notice that no charges or fees are levied at the agent location (regulatory decision option 2ai). 2013 regulations also stated mobile money agent shall not charge any fees directly to the customers and limits should be set for frequency, volume, and value of transactions; and these limits, as well as any revisions thereof, shall be sent to Bank of Uganda for approval (regulatory decision option 2bii & 3c). Recent regulations (2017) state that an agency agreement shall set out transaction limits of the agent (regulatory decision option 3d).	Mobile Money Guidelines (2013); The Financial Institutions (Agent Banking) Regulations (2017)
Agent Reporting Requirements	Early regulations (2013) stated that mobile money services must report the number of agents and the agents' balances each month (regulatory decision option 6aiii). Recent regulation (2017) states that a financial institution shall provide monthly reports to the Central Bank on new and exited agents (regulatory decision options 6ai & 6aiii).	Mobile Money Guidelines (2013); The Financial Institutions (Agent Banking) Regulations (2017)
Agent Authentication and Due Diligence	Early regulations (2013) stated that a mobile money service provider in its dealings with mobile money agents, must put in place an effective agent selection process and carry out due diligence on its agents (regulatory decision option 10ai & 10b). The agent shall clearly display in a conspicuous place the agent's unique identification number provided by the mobile money service provider. Recent regulation (2017) adds on that a	Mobile Money Guidelines (2013); The Financial Institutions (Agent Banking) Regulations (2017)

	financial institution shall ensure that the agent clearly displays in a conspicuous place at its premises of operation the signage of the financial institution responsible for the agent and the agent's unique ID number and a telephone line that the customers can access (regulatory decision option 10b). Additionally, 2017 regulations state that The Central Bank has power to: a) request for any information from an agent at any time where it deems it necessary; b) carry out an examination of an agent; c) appoint an appropriate professional at the cost of the financial institution, to conduct a special audit on an agent banking service; d) direct an agent to take any action or cease from any conduct as it may be deemed necessary; e) direct the termination of an agency agreement or closure of an agency business as it deems it fit; or f) direct a financial institution to take measures against an agent (regulatory decision option 10aii).	
Other: Cash out by unregistered mobile banking users	All funds sent to unregistered users and are not cashed out within two weeks must be returned to the sender	Mobile Money Guidelines (2013)