



Distribution 2.0:

The future of mobile money agent distribution networks



GSMA Mobile Money

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Executive summary

Mobile money agents are a crucial asset for mobile money providers and have been key to the growth of the industry over the last decade. In December 2017, there were over 2.9 million active agents and 690 million registered customer accounts worldwide. Primarily responsible for registering customer accounts, mobile money agents continue to boost transactions and drive provider revenues year on year. Total annual values of cash-in and cash-out (CICO) transactions rose from US\$39.93 billion in 2012, to US\$192.93 billion in 2017 – accounting for 54.6 per cent of the total value of mobile money transactions in 2017. Given the continued importance of CICO networks in supporting the underserved to convert physical cash to digital value, providers can justify additional investment in agent distribution networks to preserve this vital asset.

Agent networks require continued cultivation and resources. First, agent networks can be expensive to maintain due to high operating costs. For example, agent remuneration from CICO can account for more than half of total provider revenues.¹ Second, managing agent networks becomes more complex as they spread out geographically, requiring extensive supervision and monitoring from providers or contracted institutions. Lastly, operational processes, such as market scoping to identify potential agents, onboarding, training, and regular supervision typically requires heavy paperwork and large investments in staff, logistics, time, and money. In this operating environment, friction is inevitable and can lead to inefficiencies, unmotivated agents who do not get the support they need, and customer dissatisfaction mainly due to low liquidity and risks of fraud.

Recently, mobile money providers have been grappling with these challenges in new ways. These include enhancing traditional agent networks with innovative technologies to make operations more efficient, reviewing business processes to strengthen agent loyalty and increase margins, forging strategic partnerships to lower network operating costs, and redesigning network models.

Across the four main operational functions of an agent network - agent onboarding, agent training, liquidity management, and agent monitoring - we identify a number of initiatives that are improving agent networks.

1. McKinsey & Company (2018) "Mobile money in emerging markets: The business case for financial inclusion". Available at: <https://goo.gl/g2H5VI>

Key findings



The use of data and technology is upgrading the agent onboarding process and quality of new agents.

In most mobile money markets, there has been a clear shift away from manual onboarding processes involving heavy documentation and paperwork. Today, providers are turning to data gathering and analytics to improve onboarding processes. New processes include digitising paper application forms and contracts, and using and sharing data collected during the application process to improve compliance and monitoring. Transactional, geolocation and know-your-customer (KYC) data is also being used for predictive analytics to improve the quality of agents and to offer new services which will be profitable for agents, such as credit and loyalty programmes.



E-learning is making agent training more effective.

In recent years, agent training has become more convenient and accessible on new digital channels. E-learning approaches are helping to improve retention and learning through virtualisation and gamification. Providers are also able to conduct training assessments and measure the effectiveness of their training for the first time.



Data analytics are helping to predict agent liquidity needs to improve operations and offer new services to agents.

For mobile money providers and agent network managers, predictive data analytics can make liquidity

management more efficient and enable them to offer additional services to agents, such as credit facilities or float advances. For agents, predictive data can forecast inventory needs for specific periods, helping them to better manage their float. Partnerships with service providers specialising in safe cash delivery are also being explored.



Online dashboards, mobile apps, and conversational interfaces are enhancing agent monitoring systems and promoting closer engagement with agents.

Agent monitoring can be a complex and sometimes tedious process, especially in geographically dispersed agent distribution networks. Data analytics and dashboards can create real-time visibility and useful benchmarks for agents, field staff, and head offices. In addition, mobile apps and conversational interfaces through social media can bridge distances by facilitating easier transmission of real-time information with head office, and improving communication between field staff and agents and between agents themselves. This allows them to share best practices, report fraud, or shop for float.

Although these strategies and initiatives are still new and have not yet reached all mobile money markets, they are collectively driving agent distribution networks into a new phase: Distribution 2.0. For forward-thinking providers, these operational innovations could guide their journey into an exciting new phase in which they can leverage these well-managed assets to drive new partnerships and products, reaching the underserved conveniently and cost-effectively.





Background

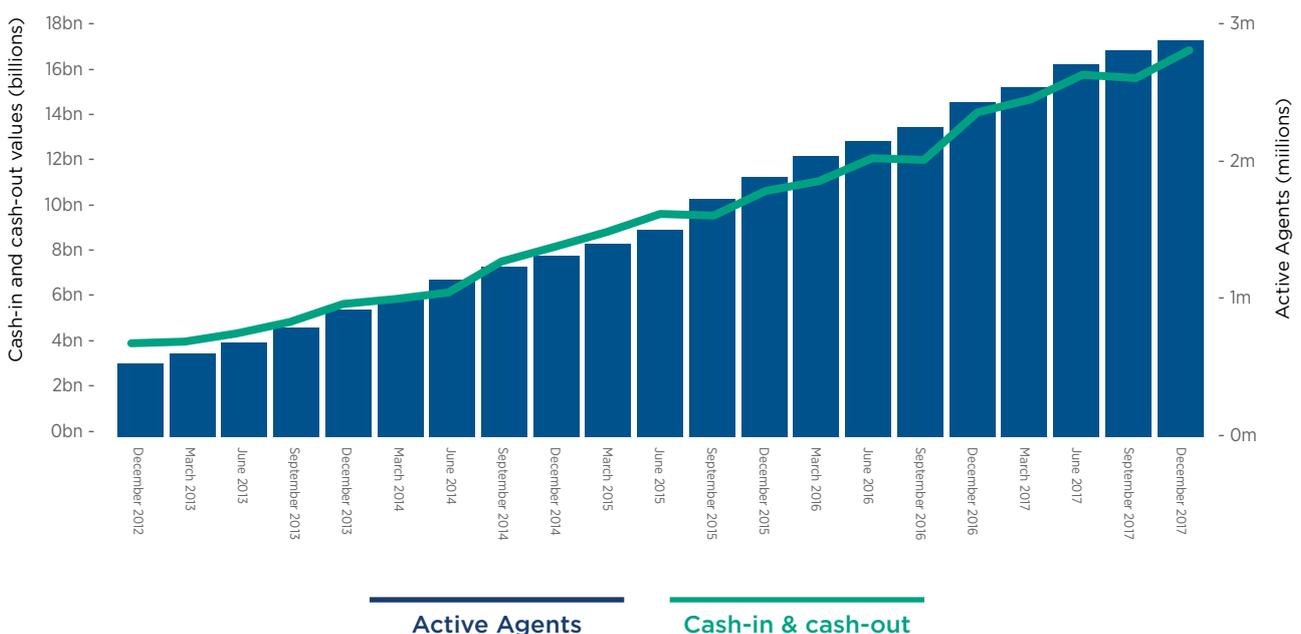
When mobile money launched a decade ago, agent distribution networks became a disruptive element in the world of financial services, particularly in developing countries where agents provided last mile financial services to unbanked rural communities and a viable digital alternative to the brick-and-mortar bank branches found mainly in urban areas.

Today, mobile money providers continue to use agent distribution networks to deliver formal financial services and increase financial inclusion. As agent numbers have grown, so has their value to providers. In recent years, the industry has seen a dramatic increase in both the number of active agents and the average values they process. The

average monthly combined values of cash-in and cash-out transactions rose from US\$4.2 billion in December 2012 to US\$17.2 billion in December 2017, while active agent numbers increased from 538,000 in December 2012 to nearly 2.9 million in December 2017.² (See Figure 1)

Figure 1

Quarterly growth of active agents and CICO globally (2012–2017)



2. GSMA (2017) "State of the Industry Report on Mobile Money". Available at: <https://goo.gl/qniVPe>



For mobile operators, the need to capitalise on the opportunities of mobile money services has driven this steady growth, as profitability in this industry is tied directly to high levels of customer and agent activity. For mobile money providers, building and managing a sustainable agent distribution network has four main challenges:

- **The cost of running an agent network:** Costs include agent selection, remuneration, maintenance, training, branding, advertising, customer education, compliance, risk management, and others.
- **Operational efficiency:** Providers must strike a balance between managing the right agents (compliance) at the right location with the right liquidity (capital and access to rebalancing points) and serving the right customers (KYC) at the right time at the lowest cost.
- **Customer service:** Because of the challenges listed above, the customer journey to regular mobile money use is long and there is a high likelihood that customers will drop off from services along the way.³ Poor or uneven training, high turnover of agent assistants, low margins, and low agent motivation can exacerbate this.
- **External market factors:** Mobile money providers constantly need to respond to competition from new entrants, changing market dynamics,

regulatory requirements, and diminishing returns from traditional sources of revenue like voice and SMS.

For providers, operational expenditures continue to shape cost structures. In 2016, mobile money providers reported that, on average, 68 per cent of costs were operational expenditures - primarily agent commissions, marketing, and teams or personnel.⁴ Managing agent networks tends to involve large teams and significant paperwork and manual processes, which can lead to inefficiencies, lower quality services for agents and customers, longer turnaround time, and higher costs. As the industry shifts to an increasingly digital ecosystem, providers have the chance to reduce the net cost of their agent distribution networks. According to the GSMA 2017 State of the Industry Report, lowering the net cost of the agent network is one of four main levers to scale mobile money.

To improve efficiency, reduce costs, and increase the quality of their services, providers must first understand the opportunities available with new technologies, strategic partnerships, and business models, and then rethink their approach to agent network management to take advantage of these opportunities. They should also invest in new agent products and services to keep agents motivated and committed, and ensure their businesses remain viable.

Common tactical initiatives to improve agent distribution networks



Use of reliable platforms with digital applications and digital identity to improve agent management processes, such as onboarding, agent training, liquidity management, and agent monitoring.



Use of data analytics to better predict demand for float, mitigate risks, and offer new services to agents, such as credit, float advances, and optical geolocation.



Improving agent liquidity by delivering float to agents rather than agents having to leave their outlets to replenish it themselves.



Improving the mobile money business by monetising agent distribution networks as assets to generate alternative revenues beyond CICO, including consolidating agent and merchant services to cut costs.

3. GSMA (2013) "The customer journey to regular mobile money usage: Longer than expected". Available at: <https://goo.gl/m8cJJB>

4. GSMA (2017) "State of the Industry Report on Mobile Money". Available at: <https://goo.gl/qniVPe>

About this study



The GSMA Mobile Money programme and MicroSave conducted a study to better understand how providers in the digital financial services (DFS) ecosystem are using various tactics to respond to the opportunities and challenges in their agent distribution networks. These DFS providers include mobile money providers, banks, agent network managers, fintech companies, microfinance institutions, and technology aggregators. The main focus of the study was what providers are doing differently to boost revenue margins from higher agent activity rates, higher quality agents, and increased service adoption. The study also explored how providers have been responding to agent needs for long-term profitability, support services, and greater business opportunities. This report documents these initiatives and how they are helping to usher in a new era of agent distribution networks. More details of the study can be found in Annex I.

Emerging best practices

The journey to Distribution 2.0

In the second decade of mobile money, there has been a shift in the industry to improve and redefine the economics of agent distribution networks and how they are built, managed, and scaled. This is not only to ensure that networks remain a sustainable part of the mobile money business, but also to address important operational challenges.

In this report, we have identified providers that are solving key challenges and future-proofing agent distribution networks with initiatives hinged on technological advancements, changes in the market environment, and evolving business objectives and customer needs. These initiatives, which are becoming industry best practices, have been categorised by the four main operational functions of an agent network: agent onboarding, agent training, liquidity management, and agent monitoring.

Figure 2

Key elements of agent network management



Although these activities take place at different stages of a network's development (inception, growth, or maturity), together these initiatives can trigger change in agent network distribution models globally. However, there is no guarantee of speed to market or scale. For instance, providers at the inception stage are not necessarily guaranteed high-quality agents when they use what they consider a superior technology to onboard agents, while the same technology in the hands of a mature provider could help to improve agent management practices, lower operational costs, and increase efficiency. Providers should therefore consider these initiatives in context and note the influence of other potential factors, such as network maturity.⁵

5. Helix Institute of Digital Finance (2016) "Successful Agent Networks". Available at: <https://goo.gl/66a7UU>

Agent onboarding

The main challenge with agent onboarding is finding the right formula for identifying quality agents in locations where there is optimal customer demand for their services. Providers that successfully strike this balance will not only ensure quality customer service in the long run, but also that agents are profitable and well remunerated and providers meet their target margins. Onboarding therefore requires careful planning using robust key performance indicators that target the right quantity and quality of agents. Providers can also use statistical analysis of population density, economic potential, or consumer lifestyles to make informed decisions about where agents should be located.

Traditionally, providers have maintained large distribution teams or outsourced agent recruitment to third-party entities, partnering with established SMEs or chain stores that have sufficient liquidity to support cash-in and cash-out transactions. They have also built relationships with local customers they hope will promote their products. The onboarding process has typically required large amounts of paper applications that must be manually collected, verified, and approved—a process that can take days and sometimes weeks. Over time, inefficiencies and low-quality, non-yielding agents (agents with low transaction volumes who were static and/or eventually churned) prompted most providers to shift their focus to more profitable urban agents that did not have the same time, distance, and cost constraints.

Technology and data analytics can support more efficient onboarding of high-potential agents.

In several markets, providers are using technology and a data-driven approach to identify optimal locations for agents, conduct behavioural assessments, profile prospective agents, and sign contracts. Some providers have reported that using technologies like web-based or digital application forms has significantly reduced turnaround times and the costs of agent onboarding.

In 2015, mobile money providers in Mali and Chad analysed telco call and mobile money transactional

data against key macroeconomic attributes to locate areas with high DFS transaction rates.⁶ In Chad, this revealed areas where financial gaps were most acute and where the cost of brick-and-mortar bank branches was a barrier to providing service, such as in border towns and refugee settlements. This approach therefore allows providers to right-size agent networks based on an analysis of the potential business in an area.

In Uganda, Airtel partnered with insight2impact and Masae Analytics to use data analytics to inform its rural agent distribution strategy.⁷ To ensure agents remained viable, Airtel considered seven attributes of the customer call detail record (CDR) data, as well as data on mobile money transactions, agent location, and financial access points to identify key locations and place agents at unserved hotspots. The analysis revealed clusters with low mobile money penetration and the size of the cluster informed the level of resources Airtel could justify allocating to customer acquisition.

Providers such as Vodacom in the Democratic Republic of the Congo (DRC) and Eko in India have put measures in place to minimise the cost and time involved in completing, collecting, transporting, and storing physical application forms and KYC documents.

Vodacom DRC, in partnership with Papersoft Solutions, is testing an automated agent onboarding, management, and customer registration platform that has a range of capabilities, including identity verification using biometrics and secure machine-readable technology that is compliant with real-time KYC checks; GPS and auditable processes; and high availability of apps, with online and offline access for areas with poor connectivity.

Eko India, which had been taking 15 to 20 days to onboard agents, introduced an e-KYC system that allowed potential agents to self-register on the Eko website. This not only reduced agent registration times, but also steadily increased the number of agents onboarded. Eko is looking forward to eventually eliminating the need for field agents.

6. GSMA (2015) "Spotlight on Rural Supply: Critical factors to create successful mobile money agents". Available at <https://goo.gl/Taah8X>

7. Insight2impact (2017) "Data-driven solution for rural agent network management". Available at: <https://goo.gl/QuwKiW>



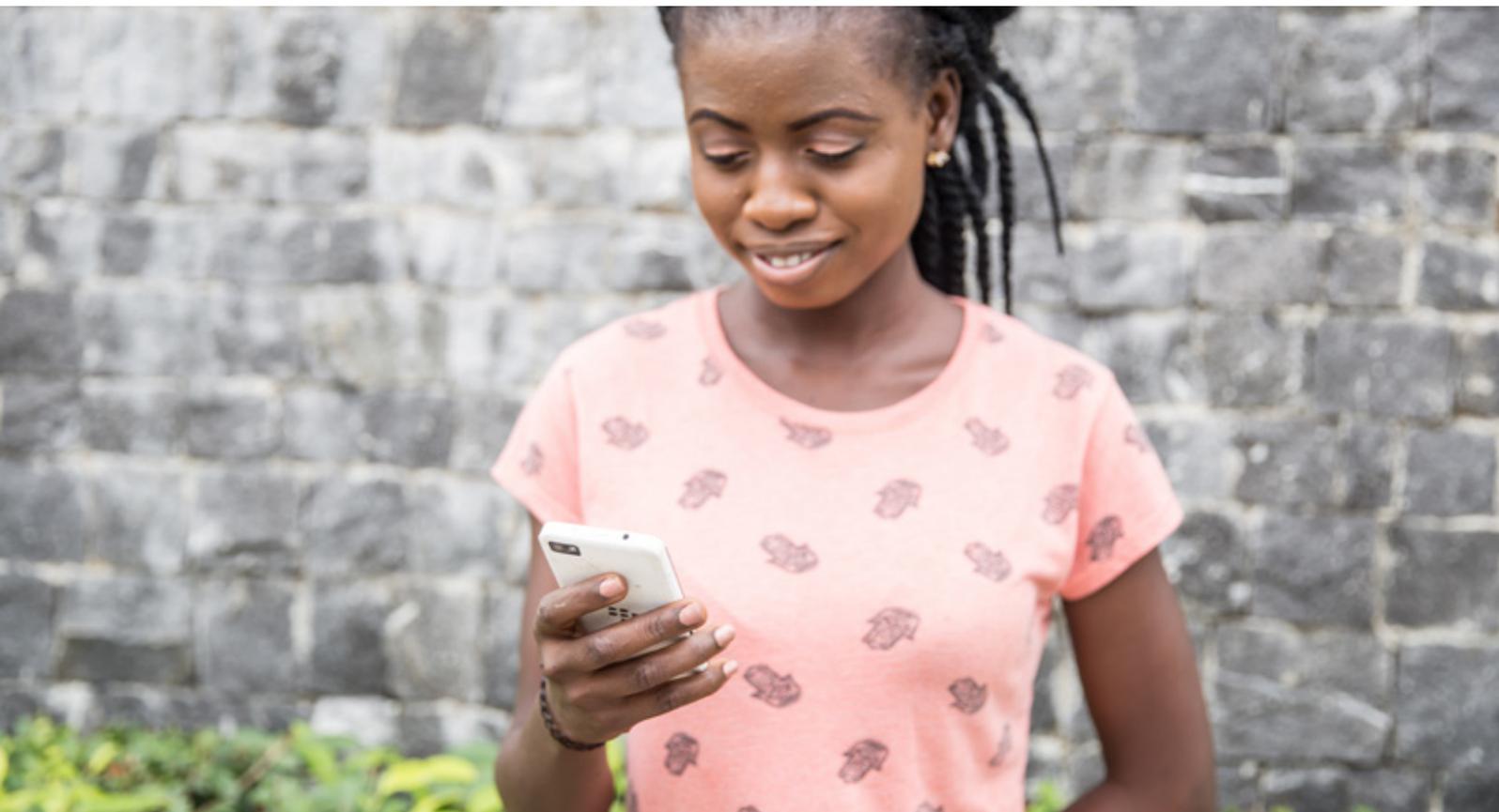
Case Study: How Zoon uses technology to improve agent onboarding

Zoon partnered with Ripple Works to identify the behavioural characteristics of successful agents by examining the traits of Zoon's top-performing agents. Using this information, Zoon now targets agents for selection by comparing the digital profiles of prospective agents against the desirable agent profiles and then recruits agents with the right fit. As a result, agents are performing better, have relatively higher activity rates, manage float and liquidity well, serve customers satisfactorily, and churn less.

Reliance on paper and the distance from Zoon's head office in Lusaka had created a lengthy onboarding process, but Zoon has **digitised contracts** that agent network managers can use in the field on tablets, as part of the onboarding process. Now, prospective agents electronically upload the required documentation and digitally sign the contract on the spot.

Zoon also introduced a chatbot embedded in Facebook Messenger to onboard existing agents who wanted to open new outlets. After logging in, the chatbot asks the agents for their requirements. The programme then populates the information, speeding up the process.

Understandably, changing the agent onboarding process initially required additional training support for agents and aggregators. However, most agents have embraced the new method and Zoon has reported significant improvement in its ability to sign up new agents. Twenty-five aggregator agents are now using tablets and recruiting agents on behalf of the network. The digital onboarding process has enabled Zoon to reduce agent onboarding to one day, reducing costs and enhancing efficiencies in the process. Because of the success of digital onboarding in Zambia, Zoon is replicating it in Malawi.



Sharing agent information can improve onboarding of quality agents

In markets where multiple providers offer DFS services through agent distribution networks, the risk of onboarding non-compliant or fraudulent agents can weigh heavily on both providers and the industry as a whole, as these agents can compromise the quality of agent distribution networks and put provider and customer funds at risk.

To minimise these risks, providers and regulators are collaborating to share agent information and agree on standard criteria for agent compliance and sanctions for non-compliance. To combat fraud, critical details such as KYC and compliance history are shared through a central database, and if an agent has a history of non-compliance, their information can be accessed and queried during onboarding. Regulators also host databases of fraudulent agents and encourage providers to contribute to them to strengthen onboarding and compliance.

In Uganda, MTN and Airtel agreed to share data on sanctioned agents who had either been blacklisted or greylisted for non-compliance. This information is currently shared on manually-filled spreadsheets every quarter, but if automated, the frequency of data sharing could increase or even be sent in real time. This would help to improve accuracy and minimise fraud as, for example, a non-compliant agent would not be able to move from one provider to another within a few months of being sanctioned.

In Ghana, the regulator, Bank of Ghana, hosts a centralised database in which all providers are expected to share agent details for approval, including the coordinates of their outlets. Upon approval, all agents receive a unique identification number that is referenced by all the providers the agent signs up with. In the event of a fraudulent crime, the list is updated and incidents recorded against the agents' details, which providers can use as a reference when they conduct their due diligence checks.

Agent training

Training is vital to a healthy agent network because it communicates the provider's policies, processes, products and services to an agent, which in turn educates customers. It also helps to ensure that agents understand the risks involved in the mobile money business, as well as the mitigation strategies. It is crucial that agents have a strong understanding of these elements and are capable of managing customer relationships.⁸

Traditionally, DFS agents have received three types of training:

- a) Initial training immediately after onboarding or when new staff is hired;
- b) Periodic refreshers depending on the provider calendar; and
- c) One-off training sessions whenever new products or services are added or there are changes to operational processes.

At onboarding, it is common practice for providers to assemble agents at a central venue for one to three days or deliver training sessions at agent outlets. Both are costly exercises that involve hiring venues, printing training materials, providing refreshments, and paying staff to train the agents. Most providers, however, do not have the resources to measure the quality and effectiveness of their training, especially when agents send representatives to attend on their behalf.

As agent operations grow and change, better planning could improve the efficiency and effectiveness of refresher and one-off training sessions. There are also opportunities to customise training to agents' needs, and to incorporate their experiences in the business.

E-learning can make agent training more effective

Providers in different countries see the rise in agents using smartphones as an advantage in agent training. Some have started creating short training videos that agents can watch on their smart devices and refer back to later, whether to learn about new product and service developments or take refresher training. Providers are also exploring more cost-effective training methods, such as self-directed learning, that allow agents to take different training modules at their convenience, and some are turning to social media and other online platforms as a more affordable and efficient way to pass on information to agents. All these approaches are improving the effectiveness of agent training and reaching a wider audience in real time.

In Bangladesh, Grameenphone creates short tutorial videos for agents and partners on various topics, such as how to conduct transactions, handle customer queries, and sales training. These videos are uploaded to their platform and are available both online and offline through their **G-LEAP**

app. Grameenphone has developed these videos in the regional language as well as multiple local languages to make it easier for agents in different areas to understand. Field staff visit agent outlets to provide on-the-spot training on G-Pay using these tutorial videos. Eko India also creates short videos that are uploaded to their platform for agents to access.

In some countries, agents conduct self-assessments through interactive voice response (IVR)-based evaluations, which in turn allow providers to measure the effectiveness of their training. A large provider in India uses IVR to assess training effectiveness following a video training session for agents. Agents are asked a set of questions that they must answer correctly, with three chances to pass the test. If they fail, their operating accounts are frozen and they are suspended as agents. They may be reinstated if they retake the training with the support of field staff.

8. GSMA (2012) "Designing and delivering agent training for mobile money deployments". Available at: <https://goo.gl/L92GFu>.

Liquidity management

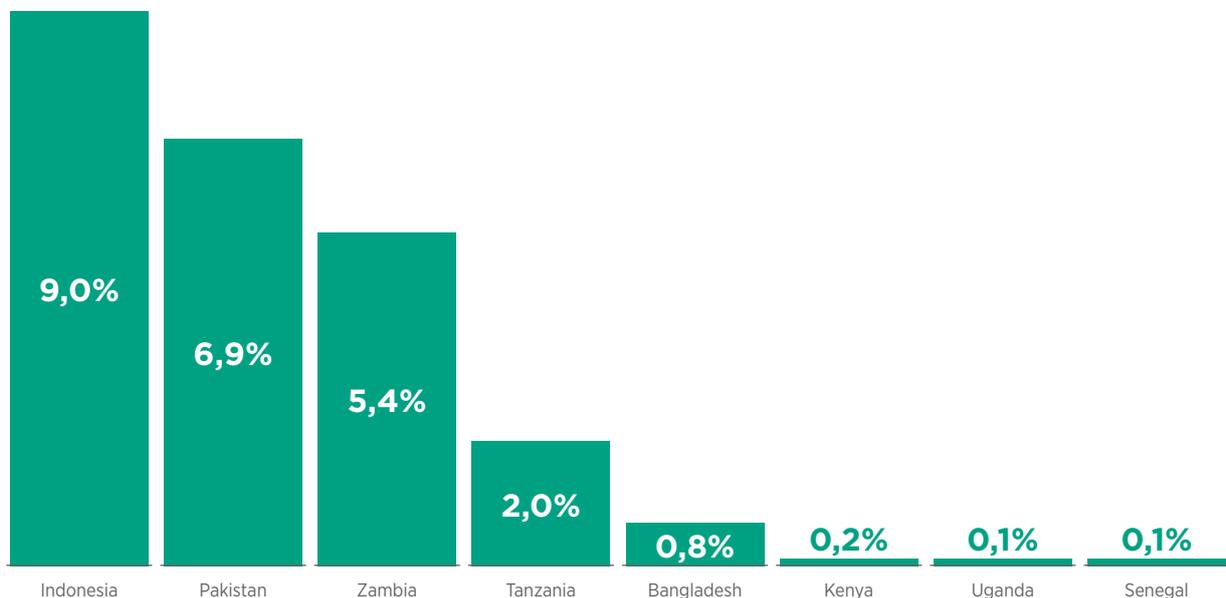
Agents should maintain sufficient e-value and cash to provide reliable cash-in and cash-out services. However, agents often face high direct and indirect costs associated with rebalancing. Direct costs include expenses incurred travelling to rebalancing points and charges to access float. Indirect costs involve the opportunity costs when agents must leave their outlets to replenish float at another location. In one of our interviews, a provider reported that some mobile money agents in rural Uganda incur rebalancing costs of up to 30 per cent of their monthly commissions. To avoid this, agents make fewer trips and stock large amounts of float that will last longer. However, this is risky for most agents as it exposes them to theft and robbery.

Other common challenges include agents' inability to raise enough capital to sustain growing demand for float, to predict demand for either cash or e-value amounts, and the long hours spent on trips to rebalancing points. If customers have to be turned away without service due to a lack of float, agents not only lose potential revenue, but customers may also lose trust in the provider, which can harm their reputation.

MicroSave's Agent Network Accelerator (ANA) research⁹ conducted in nine countries found that agents spend a not insignificant portion of their revenues on rebalancing costs (see Figure 3).

Figure 3

Cost of rebalancing float as a percentage of monthly revenue



9. The Helix Institute of Digital Finance (2017) "Fitting the Pieces of the Liquidity Management Puzzle". Available at: <https://goo.gl/o6q3xL>



Urban agents are less likely to encounter liquidity issues than rural agents, especially in countries like Kenya and Senegal where there is greater access to rebalancing points (mainly banks). In Kenya, Uganda and Tanzania, agents rebalance more frequently and keep higher float amounts to respond to high customer demand for cash-in and cash-out. However, this can be a cost driver, and in Indonesia and Zambia, agents avoid this by rebalancing about every third day. In East Africa, providers have opened up rebalancing options to the market and made services available through banks, agent network managers, and agents. This has increased the frequency of rebalancing to every other day and reduced costs.

Some providers are addressing the liquidity challenge with creative new approaches that may become best practices in liquidity management. Some examples are presented below.

Predictive data analytics can improve liquidity management

Predictive data analytics may improve liquidity management by providing efficient estimates of float inventory. Providers may use customer volume and value transaction data around agent locations to predict future demand for float, and can share their insights with agents, enabling them to manage and control their liquidity (e-float and cash) at peak and off-peak times of the day, week, or month.

Zoona, which operates in several countries in Africa, uses predictive data analytics to forecast demand, which has helped agents to plan their access to float, maintain sufficient float levels for customer transactions, and reduce rebalancing time and costs.

PesaKit, a fintech based in Kenya, has partnered with two agent network managers to improve liquidity management for mobile money agents. Once agents download **PesaKit's smart agent app** and conduct transactions for a minimum of one month, enough transaction data will have been gathered to allow predictive analysis. The app has two main features: an artificial intelligence-enabled chatbot (conducting conversations via voice or text) and a daily insights menu. The app can give an automated response to questions and carry out tasks by following the agent's instructions.

The chatbot is used to respond to agent queries about a variety of liquidity management issues. For example, agents can ask how much e-float or cash they should maintain on a daily basis or how many customers they can expect at different times of the day, week, or month. The daily insights menu is used to communicate predictive liquidity management tips to agents every morning at different times depending on the agent's location. Tips include the appropriate time to open agent outlets and when to close, and the cash and e-float required per day, among others.

Data analytics can help expand agent businesses

While aspiring agents may lack the capital to launch operations, existing agents may not have enough working capital to keep their business going. Traditionally, providers have responded to this challenge by extending float advances or credit and overdraft facilities to agents. Now, predictive data analytics can be used to generate credit scores and extend different levels of credit to qualifying agents. The algorithms may be based on transactions, such as unique cash-in and cash out-transactions, revenue over time, average float levels over time, and compliance history, or on assets, such as types of structures, number of employees, tools, and equipment.

Airtel Money Uganda partnered with Jumo to provide agents with digital credit for float. The unique advantage they offer agents is that they charge them a lower rate of interest than they charge customers. In nascent mobile money markets like Fiji, where Vodafone wanted to increase access points for its customers, Vodafone began providing loans to potential agents who were not signing up because they were unable to meet the initial float requirements. This has supported the expansion of Fiji's agent network.

Float delivery can improve liquidity management

In most markets, agents must leave their outlets to rebalance float at appointed super-agent or dealer locations. To reduce the rebalancing costs incurred by agents and ensure they can conduct transactions more efficiently from a well-stocked float, providers are developing a new system: delivering cash and

e-value directly to agents using ‘float runners’. There are two types of float delivery models: 1) the DFS provider’s field teams deliver cash and e-value to agents; or 2) the provider outsources float delivery to partner institutions.

It is costly to maintain float delivery teams, however. A few providers charge agents a minimal fee to reduce the short-term costs, but float delivery is done with a long-term view of recovering the costs through higher margins generated at scale. Thus, the initial investments may be seen as ongoing operational expenditure (OPEX) that is necessary to make mobile money deployments more profitable. The overarching motive for delivering float to agents is to transfer the direct and indirect rebalancing costs and fragmented responsibilities from individual agents to improve their margins. Third-party providers can factor in their own margins based on economies of scale, which is beneficial to providers because they are better able to monitor, predict, and price the services.

In Uganda, Airtel Money partnered with 53 float runner entities, known locally as aggregators, to buy float from a super-agent and deliver it to agents. Airtel demarcates the territory in which each of the aggregators operates. One of the companies, Blacknight, covers about 800 agents in different regions, mainly rural areas. It has an associate team,

and each team member is responsible for delivering float to about 100 agents.

MTN Uganda hired a reliable franchise dealer in charge of the Bidi Bidi refugee territory to manage agent liquidity,¹⁰ and the dealer recruited a helper who moves around the settlement to rebalance agents’ e-money float and cash.

FINO PayTech in India has dedicated staff members who deliver and pick up cash, relieving agents of the time and expense associated with rebalancing. FINO also pays ‘super customers’ (usually well-off villagers) to be prepared to make a deposit with the FINO agent if the agent needs immediate access to cash to serve other customers.

Geomapping can improve the visibility of rebalancing points

Generally, providers map agents, super-agents, and agent network managers to help agents access liquidity management services quickly. Increasingly, however, providers are using data analytics to map the opportunities and gaps in liquidity management and are empowering field monitoring teams with technology to improve float management. For example, NovoPay in India uses advanced GIS mapping systems to match agents with nearby field officers who top up agents’ floats.

Agent monitoring

In agent monitoring, providers oversee an agent’s financial performance to ensure they comply with the operational guidelines of the business. It also involves gathering market and business intelligence on customer changes, competitor developments, risk issues, agent network growth, platform performance, and branding to inform the business about risks, opportunities, and strategies for improvement. The frequency of monitoring depends on the need and is conducted either by the provider’s field supervision teams and agent network managers, or a hybrid model in which both are involved. The monitoring teams follow specific route plans, making random visits to agent locations to check compliance with a checklist of requirements. Ideally, in-person monitoring occurs once every two weeks for a nascent mobile money

provider and once a month for ones that have reached scale. Technology-based monitoring can be done on a daily basis.

A key challenge with monitoring is the lack of a clear and defined process for capturing and analysing data gathered in the field and transmitting it to business teams at the head office in time for them to make informed decisions. Errors and omissions may also occur when field teams do not include the correct information in monitoring checklists and feedback mechanisms.

Providers are using technology such as remote monitoring techniques to eliminate in-person visits to agents, and are making good use of the feedback gathered through data analytics. Providers

10. GSMA. (2017) “Humanitarian payment digitisation: Focus on Uganda’s Bidi Bidi Refugee Settlement”. Available at: <https://goo.gl/Wc3bJh>



that have made this data available to agents are empowering agents to self-assess prior to the provider assessment, and this is having a reforming effect: passive agents are becoming proactive and improving their quality of service and activity rates.

Agent performance can receive a boost with data analytics and dashboards

a. Dashboards with real-time data feeds can improve efficiency

More providers have begun to invest in integrating real-time business intelligence dashboards with their platforms to monitor agent performance, and these are increasing efficiency and improving customer service. These platforms have data visualisation capabilities with system flags that send prompts to agent supervisors or field staff to take action whenever an agent breaches a parameter, such as low float levels (as defined by the providers). Performance indicators can include data analysis based on:

- **Commercial monitoring:** transaction values and volumes per agent;
- **Compliance checks:** anti-money laundering (AML) transaction monitoring, checking agent and customer risk levels and predictive future activities, and generating reports and flagging suspicious activities;
- **Operational monitoring:** branding, training, float levels, and customer service; and
- **Transactional monitoring:** a flag or alarm may be raised when there is an abnormally high frequency of transactions per second (pointing to a spike in customer demand) or several transactions of equal value occurring within seconds of each other (pointing to possible fraud).

Some of the more important items that providers investigate are split transactions, illegal direct deposits or over-the-counter (OTC) transactions, unusually high customer transactions, marketing effectiveness, customer service, counterfeit transactions, and security.

Yo! Uganda and Airtel Money in Uganda, Airtel Money in Ghana, and Eko in India all use float monitoring dashboards. They report that

dashboards have helped to make their networks transaction-ready by ensuring agent workflows are not interrupted, by improving agent transactions, reporting, and planning, and by improving their ability to determine float trends. Eko reports monitoring agent liquidity levels on their dashboards every four hours.

b. Field monitoring teams can also drive data collection and the use of dashboards

The use of mobile applications and dashboards by field monitoring teams is also transforming how agent distribution networks are monitored. Although costly in the short term, providers are focused on reducing labour-intensive monitoring and the turnaround time for gathering information through mobile applications. In turn, providers have more control over the operations of the agent distribution network and can inform evidence-based decision making.

Optimetriks has partnered with Airtel Uganda to monitor the field operations of their 80 agent supervisors using a digital Android-based tool. Each of the 80 supervisors manages at least 20 agents, and uses Optimetriks' unique combination of a user-friendly mobile app and web dashboards to give Airtel an accurate view of what is happening on the ground. When visiting agents, the field supervisors enter key information in monitoring reports: sales, float levels, agent satisfaction levels, availability, display of trade marketing material, and agent performance per provider. The mobile apps also enable them to capture photos of the agent outlets while taking note of their GPS locations, giving providers more visibility on agent outlets. The data then appears on live web reporting dashboards at Airtel headquarters.

NovoPay India has introduced a centralised command centre or dashboard to monitor activities at agent outlets. Monitoring is conducted on key performance metrics, such as agent transaction volumes and values, float levels, customer complaints and branding, and then data analytics are used to identify and address key areas of concern.



Some leading providers have invested in smartphones, tablets, and GPS systems to analyse field monitoring routes and frequency for quality assurance. In cases where providers do not have platforms to conduct agent monitoring, there are registers at the agent outlet that monitors sign as evidence of the visit and completed tasks. However, this extra layer of verification is time consuming and costly.

In addition to using dashboards and complex data analytics, agents can also view mini-dashboards on their smart devices on revenue over time, transaction trends, access to credit, opening hours, summary six month statements, float levels over time, and other data. This is a deliberate strategy by some providers, whose agents almost exclusively operate their business using smartphones, tablets, or laptops. Agents can see the various attributes of the provider's mobile money business and visualise how their businesses is contributing to the overall business goals. The data parameters are simplified for agents to quickly make the connections.

This type of initiative can empower agents to understand and appreciate their business, and harness agent loyalty over the competition, become more proactive in generating business and pushing transactions, and are motivated to open multiple outlets, as they see themselves as part of the overall business.

Chat interfaces and social media support virtual agent monitoring

Monitoring agents in person can be a challenge for providers given how geographically dispersed they are. On the other hand, when no regular support is given, agents can become unmotivated. So, providers are turning to social media to encourage interaction between groups (sometimes at a regional level) and create direct connections between agent supervisors and agents. Agents also use these platforms to interact with each other, seek clarification on different aspects of the business, or shop for float.



Orange in Liberia and Sierra Leone, LonestarCell MTN in Liberia, and Africell in Sierra Leone are all using social messaging apps as a more affordable way to monitor agents. With poor infrastructure in both countries, messaging is a perfect way for agents to communicate quickly and for provider staff to monitor agent activities.

IDFC Bank runs the largest direct business correspondent (agent distribution network) in India. District coordinators are the main contact points for clusters of 70 agents in each district, who use messaging platforms to create and submit daily reports on agent performance. The regional head supervises the district coordinator to check on daily activities, the daily targets achieved, the number of agents monitored, and other data points. IDFC finds this a cost-effective and quick way to monitor agents and populate and submit data.

Chatbots can be used to provide remote support to agents on demand

A chatbot is a computer program that uses artificial intelligence (AI) to conduct conversations via voice or text, and to perform automated tasks, such as responding to questions or carrying out tasks by following instructions from humans.

A few mobile money providers are experimenting with agent monitoring using chatbots because of their interactive nature. Providers integrate their core business platforms with the AI systems of the chatbot providers, which provide opportunities to customise monitoring and support services. Some providers offer web-based chatbots or chatbots embedded in Facebook Messenger, which are used to query agents about various monitoring aspects or to resolve agent issues promptly.

Zoona agents submit queries to chatbots through Facebook Messenger and receive real-time support on how to use USSD-based self-help menus. In the back end, data on queries and resolved issues are populated and monitored on a real-time basis. Zoona reports that the combined use of chatbots and self-help USSD features has led to a significant reduction in the number of calls to the call centre.

The way forward

Implementing new best practices

Agent networks will continue to be a vital part of the mobile money industry, even as digital inflows and outflows increase.¹¹ As long as customers need convenient and affordable touch points to convert cash to digital and vice versa, these networks will be relevant and will continue to grow.

The initiatives discussed in this paper are emerging best practices that providers have adopted at every stage of network development to improve operational efficiencies, cut costs, improve customer service, improve agent economics, and expand the reach of the agent network. New mobile money providers can benefit from the technology-led initiatives featured here, but they are no guarantee of speed to market or scale. Rather, they provide lessons for providers engaged in the four main aspects of agent network management: onboarding, training, liquidity management, and monitoring.

Agent onboarding: In most mobile money markets, there has been a clear shift away from manual processes that have involved heavy documentation and paperwork. Today, providers are turning to data sharing and analytics to improve onboarding processes, including:

- Digitising paper application forms and contracts;
- Using KYC data collected during the application process to improve compliance and monitoring by sharing it centrally through agreed terms with other providers and even regulators. KYC data can also be used for predictive analytics to improve the quality of agents; and
- Using transactional data to offer new services such as credit, geolocation data to ensure that agents are properly located to serve in areas where they can maximize their profitability

The shift to digital onboarding will ultimately improve the overall quality of the agent network by allowing providers to identify optimal agent locations, screen and recruit quality agents, and minimise fraud. Providers should also leverage big data capabilities to build a comprehensive view of agents' historical activities and potential.

When implementing new technology to onboard agents, apart from the costs, providers must be aware of the need to work with all stakeholders to embrace the changes. Otherwise, these efforts can be thwarted and create additional challenges. Close monitoring can prevent agents from introducing manual fallbacks as shortcuts, and providers can be confident they have captured current and accurate information for analysis.

Agent training: In recent years, agent training has become more convenient and accessible on new digital channels. E-learning approaches are helping to improve retention and learning through virtualisation and gamification, and providers are able to conduct training assessments and measure the effectiveness of their training for the first time.

As providers become more open to industry partnerships, collaboration and interoperability, it is expected that strengthening agent loyalty, skills, and business acumen will become a key area of focus. Providers will also become more likely to promote self-directed, refresher training for agents on business processes, new products and services, and customer service skills. Providers therefore need to get it right to avoid a steep learning curve in subsequent training.

E-learning methods provide a convenient and accessible channel for agents, improves learning and retention through a mix of videos, quizzes, reading materials, virtualisation and games. It also allows

11. GSMA (2017) "State of the Industry Report on Mobile Money". Available at: <https://goo.gl/qniVPe>



providers to measure the effectiveness of their training. Gamified nudges delivered through apps or SMS notifications can keep agents engaged in the learning process. At the end of the training, both virtual and physical certificates could be issued for agents to proudly display as an achievement and symbol of compliance.

Liquidity management: This continues to be the most difficult agent activity to digitise. Technology-driven analytics to predict customer demand for liquidity are blossoming, and seem to work well when coupled with physical rebalancing to facilitate management of cash.

The time and costs associated with rebalancing have a ripple effect on customer trust and the reputation of agents and providers. Aware of the risks associated with liquidity management, providers continue to focus on improving cash and e-float management through strategic responses, such as data analytics to predict demand and supply, as well as tactical approaches, such as using float runners to supply cash, float, and digital credit to agents, and increasing the visibility of rebalancing points for agents.

While these float delivery techniques stand out as more cost-effective ways to rebalance agents, they may not be replicable in some markets due to the risks involved, such as robbery and theft. However, they can be customised to different contexts by identifying areas of opportunity for partnership. For example, Prime Bank in Kenya recently launched a Bank on Wheels, a mobile mini-branch unit to offer cash-in-transit services to select business customers at their convenience. Mobile money providers in Kenya could use this opportunity to create partnerships with the bank and improve float delivery (especially cash) to agents in hard-to-reach locations like rural areas.

Agent monitoring: Data analytics and dashboards can enhance or even transform traditional in-person monitoring processes by creating real-time visibility and performing useful analyses and benchmarking. These can also be supported by closer communication with agents on social media platforms.

There are opportunities for further improvements to automate and customise monitoring, for example, for system-generated action triggers like sending an SMS to agents asking them to replenish when they reach a certain float threshold, an SMS warning against split transactions, or automatic suspension when an agent performs a non-compliant transaction.

Finally, while there are various uses for technology to improve processes across the agent network management functions, it is critical to note that providers will still need to maintain their core competency in face to face management of the agent network. For example, although more and more providers are using technology and e-learning to train and coach agents, face-to-face training will remain important because:

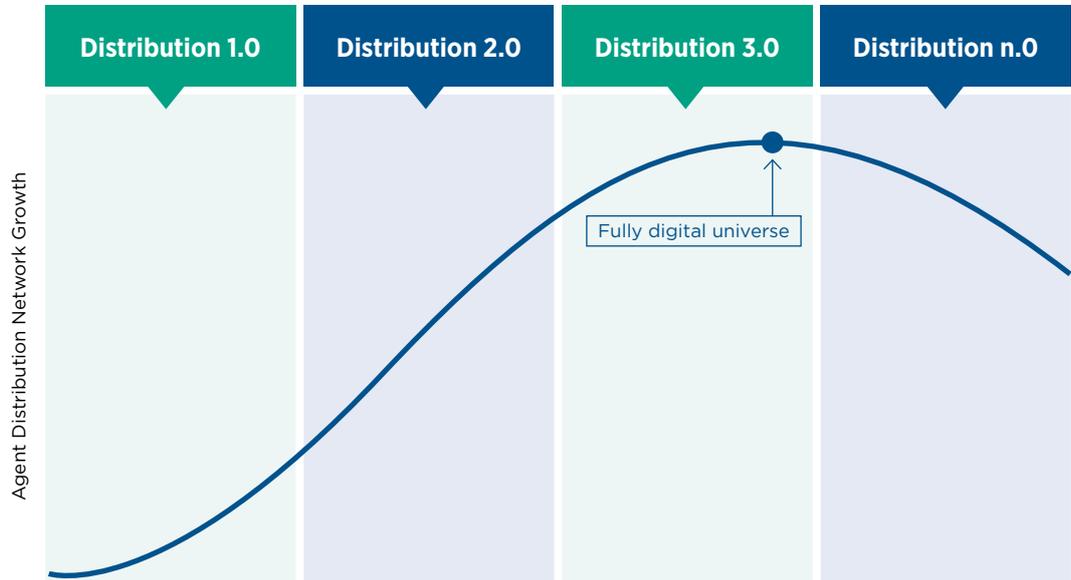
- Agents can see a practical demonstration of how products and services should be offered, including best practices in sales, financial management, and customer service;
- Providers can speak with agents in person to understand where potential issues might arise and where additional support can be provided; and
- New agents can ask questions when they do not understand concepts, which helps providers to identify training needs, design better training content, and measure the effectiveness of the training.

Similarly, providers can effectively monitor and support agents using social media, but this may not entirely replace in-person monitoring as other intangible monitoring attributes may be overlooked and compromise decision making. This evolution in technology and human-led agent distribution network management is one part of the shift to a second phase of agent distribution networks. Figure 4 distinguishes the different phases.



Figure 4

Evolution of agent distribution networks and associated activities



	Distribution 1.0	Distribution 2.0	Distribution 3.0	Distribution n.0
Technology and human-led agent distribution network management	<ul style="list-style-type: none"> Technology limited to platforms Human-intensive manual processes for agent network management 	<p>More robust platforms with decreased human intervention through digitisation of processes, including agent onboarding, virtual agent monitoring, and making use of social media to support agents</p>	<p>Transitioning into artificial intelligence (AI). Increased digitisation and diminishing provider teams involved in agent network management</p>	<p>Artificial intelligence (AI) or robotics-driven with no or limited human involvement in agent network management</p>
CICO trends	<p>Heavy cash-in and cash-out transactions</p>	<p>Increased cash-in and cash-out</p>	<ul style="list-style-type: none"> Diminishing cash-in and cash-out Receive funds digitally and heavy reliance on digital push and pull of funds 	<p>Complete push and pull of funds between wallets. Receives funds digitally.</p>
Agent deployment	<ul style="list-style-type: none"> Providers work in silos and experience duplication of efforts More competition and less cooperation where very few providers are willing to collaborate 	<ul style="list-style-type: none"> More open APIs promoting integrations, leading to more collaboration opportunities Enhanced cooperation, making use of the competitive advantage of the partners 	<p>Universe of agents ('Android of agents')</p>	<p>One-stop shop for all financial and non-financial needs</p>



Outlook

In the first decade of mobile money, providers invested heavily in building and managing quality agent networks. As customer and agent transactions shift to digital and providers innovate to reach the last mile, mobile money providers can make the most of these valuable assets by considering partnerships and products that could boost agent activity.

Once providers establish reliable agent networks, other financial and non-financial businesses could benefit from existing mobile money agent networks to distribute their products. For example, mobile money providers could leverage the agent network to offer distribution solutions to other types of businesses. It is likely that in the future we will see agent networks offered as a service to mobile banking providers, banks, fintechs, and insurance companies as a one-stop service.

In the future, we expect that providers will pursue more partnerships and negotiations between mobile money providers and other stakeholders to leverage mobile money agent distribution networks

and support product development. For example, extending agent distribution networks to address the delivery challenges of e-commerce providers would also grow the digital payment business and, in turn, expand the services agents can offer and improve the viability of their businesses.¹²

Regulation must be carefully considered to ensure it continues to support the evolution of agent distribution networks. For instance, mandated non-exclusivity, tax on agent commissions, or strict price controls may have a negative effect on the way providers choose to invest in the management of agent networks, stifling innovation.

The initiatives featured in this report are primarily institutional solutions introduced by providers or agent network managers. However, a healthy, well-managed agent network at scale is key to the next phase of mobile money, and providers will need to leverage their agent network to respond to new entrants and deliver adjacent products and services. For forward-thinking providers, these operational innovations could guide their journey into an exciting new phase.

12. GSMA (2017) "Mobile money and e-commerce: Three areas of partnership in Southeast Asia". Available at: <https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2017/07/GSMA-Establishing-successful-mobile-money-and-e-commerce-partnerships-in-Southeast-Asia.pdf>

Annexes

Annex I: Objectives, methodology, and scope of the study

Objectives

- Gather information on the mobile money operators that are currently implementing initiatives to improve on the traditional methods of agent distribution, particularly those aimed at improving efficiency, delivering better customer service, and reducing costs;
- Identify emerging best practices for strengthening agent distribution networks and share lessons on how these new initiatives are redefining the distribution network and how providers are using them to ‘future-proof’ this key asset; and
- Provide recommendations that can be used to support the industry to implement new strategies for agent network management for the future.

Methodology

We conducted a desk research to identify leading mobile money providers championing various initiatives around their distribution networks to drive efficiency, reduce costs, improve on their customer service, and solve other existing challenges in the management of agent networks. We then classified these providers anchoring thematic areas where the initiatives had been introduced, taking into consideration the rationale behind the initiatives and impact (expected and actualised), as in the table below:

Agent network management: Classification framework			
Thematic area	New approaches and practices	The rationale for implementing a new approach	Impact of or vision for the new approaches
Agent onboarding			
Agent training			
Liquidity management			
Agent monitoring			



To fine-tune the framework for thematic classifications of the initiatives within the agent distribution network, the study entailed:

- Review of MicroSave's ANA data on thematic classifications;
- A literature review of the existing agent distribution models; and
- Review of reports, presentations, and publications from thought leaders in agent distribution networks.

The classification framework guided the field activities in conducting in-depth interviews with DFS stakeholders. The interviews focused on:

- Identifying emerging best practices that strengthen agent distribution networks;
- Building an understanding of how new initiatives are redefining the agent distribution network;
- Exploring how these initiatives by the mobile money providers can help to 'future-proof' the distribution against the fast-changing market environment; and
- Reviewing existing synergies between mobile money providers and other fintech companies that seek to implement new strategies for the future.

The respondents of the in-depth interviews were stakeholder's representatives, please refer to annexure II. We held face-to-face and telephonic conversations with these respondents across the identified markets and DFS deployments. We made field observations and recorded findings in field observation templates, which were accompanied with pictures. We interviewed around 30 institutions as part of the study.

Scope of the study

The scope of the study involved the broader DFS perspective, taking into consideration non-MNO mobile money stakeholders. This is because bank-led and other non-MNO-led models involving third-party providers also use agent distribution networks. These providers include banks, telcos, third-party mobile money providers, agent network managers or trade development companies that support the agent networks in some markets, technology aggregator companies, and key donor community respondents.

Annex II: Providers interviewed

SI No	Name of the provider	Type	Country
1	Dutch-Bangla Bank Ltd. (DBBL)	Bank	Bangladesh
2	Grameenphone	MNO	Bangladesh
3	SureCash	Third-party Provider	Bangladesh
4	Zoom	Third-party Provider	Brazil
5	Vodacom	MNO	DRC
6	Vodafone	MNO	Fiji
7	Airtel	MNO	Ghana
8	A large payments bank	Bank	India
9	A large payments bank	Bank	India
10	IDFC Bank	Bank	India
11	Grameen Foundation	International NGO	India
12	Sanjivani	Third-party BCNM	India
13	Eko India Financial Services	Third-party Provider	India
14	Oxigen	Third-party Provider	India
15	Bank Mandiri	Bank	Indonesia
16	Truemoney	Third-party Provider	Indonesia
17	A multinational organisation	Agent Network Manager	Kenya
18	A large bank	Bank	Kenya
19	Cedric Javary	Independent Consultant	Lao PDR
20	Mynt	MNO	Philippines
21	Vodafone	MNO	Solomon Islands
22	A large provider	MNO	Tanzania
23	Mcash	Agent Network Manager	Uganda
24	ChimsAfrica	Agent Network Manager	Uganda
25	Agent Banking Company	Agent Network Manager	Uganda
26	Yo! Uganda	Agent Network Manager	Uganda
27	Mobile Money for the Poor (MM4P) -UNCDF	Donor Organisation	Uganda
28	Airtel	MNO	Uganda
29	Zoona	Third-party Provider	Zambia

Annex III: Emerging initiatives' in agent network management

ANM function	Initiative	Initiative (detailed version)	Provider name, country
Agent onboarding	Behavioural characteristics of successful agents	Zoona created digital behavioural characteristic profiles of successful agents. Zoona is using the digital profiles to verify and crosscheck for these traits with potential agents.	Zoona, Zambia
	Automation of agent onboarding	Vodacom is testing automated agent on-boarding and management with features of identity verification using biometrics, GPS and auditable processes.	Vodacom, DRC
	Blacklisting of fraudulent agents	Sharing blacklisted agents with each other on a quarterly basis to eliminate the fraudulent agents.	MTN and Airtel Uganda
	Online agent application	Potential agents can register through the website and upload their KYC and other supporting documents.	Eko, India
Agent training	YouTube channel for agent training	Training videos are uploaded on YouTube and these videos are available in multiple regional languages of India.	A Payments Bank, India
	IVR for conducting training evaluations for agents	Agent training effectiveness is tested using IVR technology after the online training sessions. The IVR system involves asking a set of questions to the agents which must be answered correctly, if not they will undergo training again.	A Payments Bank, India
	Online videos for agent training	Agents can access all the training videos from the Eko platform from their desktop.	Eko, India
	Training videos	Training videos are available on the YouTube channel which the staff use to train the agents.	Grameenphone, Bangladesh
MicroSave developed online training modules for agents. These techniques can leverage different channels such as AM/FM radio, IVRs, YouTube, social media, and mobile applications. This was used by SBI to circulate to its direct agents and its third party (BCNM) partners (SAVE and Drishtee).		State Bank of India (SBI), India	

ANM function	Initiative	Initiative (detailed version)	Provider name, country
Liquidity management	Data analytics to predict demand for agent float	Data analytics are used to predict float requirements for different geographies. The predictions are being communicated to agents so that they are prepared.	Zoona, Zambia
		Data analytics to identify and extend agent loans.	Zoona, Zambia
	GIS mapping for rebalancing points	GIS mapping is used to map agents with rebalancing points and communicated to the agents.	NovoPay, India
	Doorstep rebalancing option	Partners provide doorstep rebalancing for agents. Staff do follow a fixed schedule/ route map to deliver the float.	Airtel, Uganda
	Doorstep rebalancing option	In partnership with distributors, provides doorstep rebalancing option for agents. Distributor staff do follow a fixed schedule/ route map to deliver the float.	bKash, Bangladesh
			DBBL Bangladesh
		Provide doorstep rebalancing option for agents. Staff do follow a fixed schedule/ route map to deliver the float.	FINO, India
	Wallet funding and doorstep rebalancing option	Provides wallet funding to the aggregator. Aggregator further provides doorstep rebalancing option for agents.	Mynt, Philippines
	Credit to agents for liquidity	Provide liquidity to the agents either as a loan or an overdraft or advancing float.	KCB, Kenya
			Equity Bank, Kenya
	Digital credit to agents	Provides Wewole, a digital micro-credit, solution to agents by use of alternative credit scoring through its partnership with JUMO	Airtel, Uganda
	Advance float to agents for liquidity	Provides advance float facility to the agents who are short of liquidity which is recovered from them once the agent starts performing.	Vodafone, Fiji
Credit to agents for liquidity	Provides credit over-draft to well-performing agents.	Bank Asia, Bangladesh	
Interest-free wallet funding	Provides wallet funding to the aggregator (of agents). Aggregator further very short-term credit to agents (interest-free).	Mynt, The Philippines	

ANM function	Initiative	Initiative (detailed version)	Provider name, country
Monitoring and support	Dashboards for float monitoring and to remind agents	Conducts agent float level monitoring through system flags for the minimum threshold. Alerts are sent to the field officers for physical contact with agents to replenish float.	Yo! Uganda
		Uses dashboards to monitor the float on a real-time basis and alerts either agents or staff or distributors.	Eko, India
			NovoPay, India
			Mynt, Philippines
			G-Pay, Bangladesh
	Use of mobile applications to monitor the agents and supervisors	Using mobile applications, Field Supervisors submit real-time monitoring reports from the agent outlets.	Airtel Uganda
		Field Officers utilise USSD based applications to query float balances of agents, who did not maintain minimum float threshold. The Field Officers then follow up with these agents for a top-up.	Airtel Ghana
	Use of social media to support agents	Groups are created on social media for agents (with or without provider staff) to effectively communicate, support and resolve agent issues.	Orange Money, Liberia
			MTN Lonestar, Liberia
			Africell Money, Sierra Leone
			Orange Money, Sierra Leone
			KCB, Kenya
			Equity Bank, Kenya
			Safaricom, Kenya
			Airtel Money, Kenya
Different groups are created for agents and staff on the social media to effectively communicate, support and issue resolution for agents.	Co-op bank Kenya		
	AMK- Cambodia		
Increasing business case for agents	Agents are offering insurance products to enhance their business case.	FINO, India	

Annex IV: Acronyms

AI	Artificial intelligence
AML	Anti-money laundering
ANA	Agent Network Accelerator
API	Application programming interface
CDM	Cash deposit machines
CDR	Call detail records
DFS	Digital financial services
DRC	The Democratic Republic of the Congo
e-value	Electronic value
FMCG	Fast-moving consumer goods
GPS	Global positioning system
IVR	Interactive voice response
KPIs	Key performance indicator
KYC	Know Your Customer
MMP	Mobile money provider
OPEX	Operational expenditure
OTC	Over-the-counter
SMS	Short message service
USSD	Unstructured supplementary service data
VAS	Value-added service
21	Vodafone
22	A large provider
23	Mcash
24	ChimsAfrica
25	Agent Banking Company
26	Yo! Uganda
27	Mobile Money for the Poor (MM4P) -UNCDF
28	Airtel
29	Zoona

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