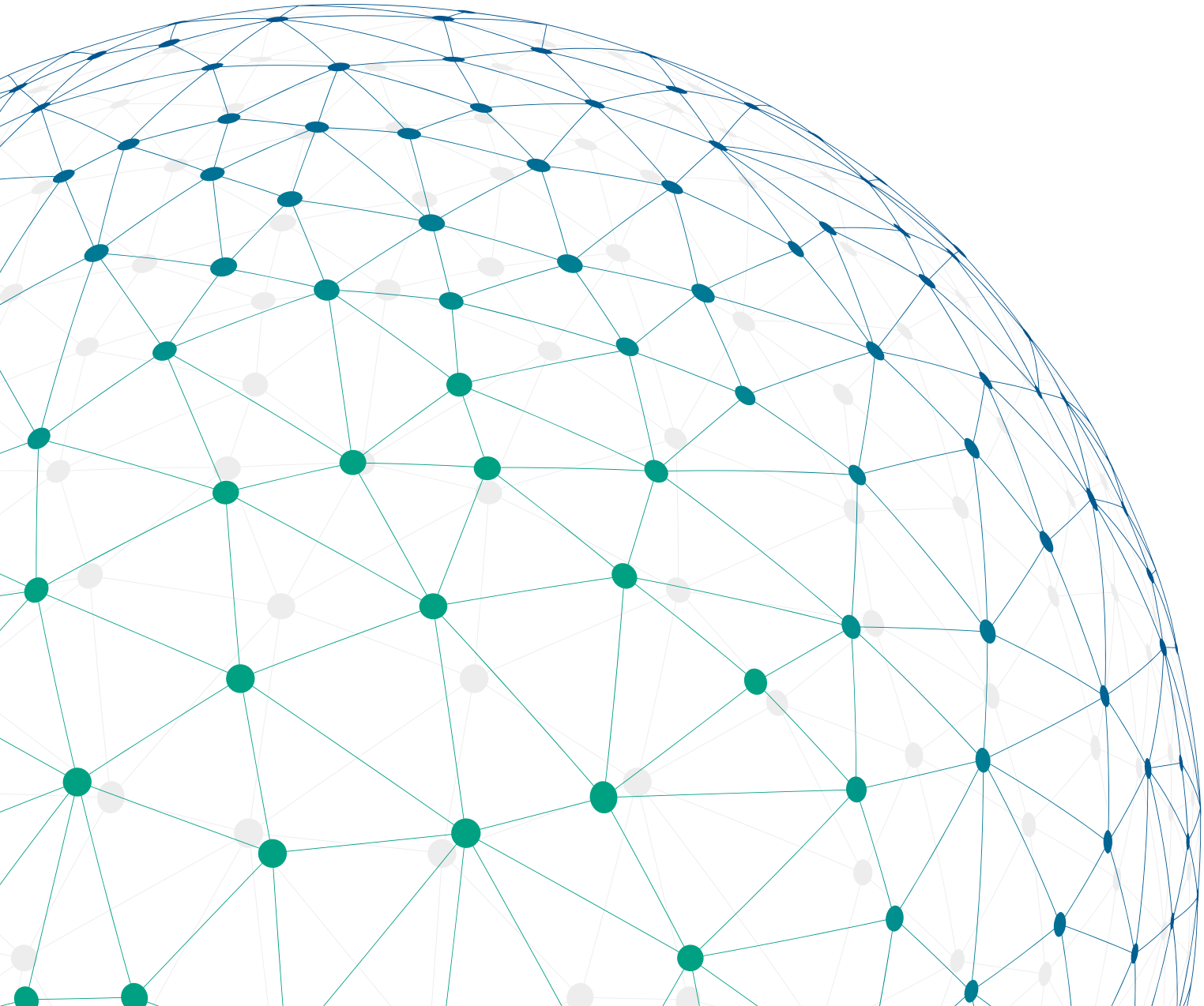
2015

State of the Industry Report

Mobile Money



The GSMA represents the interests of mobile operators worldwide, uniting nearly 800 operators with more than 250 companies in the broader mobile ecosystem, including handset and device makers, software companies, equipment providers and internet companies, as well as organisations in adjacent industry sectors. The GSMA also produces industry-leading events such as Mobile World Congress, Mobile World Congress Shanghai and the Mobile 360 Series conferences.

For more information, please visit the GSMA corporate website at www.gsma.com

Follow the GSMA on Twitter: @GSMA

The GSMA's Mobile Money programme works to accelerate the development of the mobile money ecosystem for the underserved.

For more information, please contact us:
Web: www.gsma.com/mobilemoney
Twitter: @gsmammu
Email: mobilemoney@gsma.com

THE MOBILE MONEY PROGRAMME IS SUPPORTED BY THE BILL & MELINDA GATES FOUNDATION, THE MASTERCARD FOUNDATION, AND OMIDYAR NETWORK

About the GSMA Mobile Money programme

Two billion people remain unbanked, without access to safe, secure, and affordable financial services. The GSMA Mobile Money programme is working with mobile operators and industry stakeholders to create a robust mobile money ecosystem, which will make these services more relevant and useful and ensure they remain sustainable.

We do this through close engagement with mobile money providers, providing the mobile industry with tools and insights to help deployments scale, as well as supporting the creation of enabling regulatory environments to facilitate digital financial inclusion. The programme also supports mobile money operators to implement interoperability of mobile money services, and to further develop the digital ecosystem by facilitating the integration of third parties to mobile money schemes.

For more information, visit www.gsma.com/mobilemoney

Acknowledgements

The GSMA Mobile Money programme would like to express its sincere appreciation to the Bill & Melinda Gates Foundation, The MasterCard Foundation, and Omidyar Network for their ongoing support. We would also like to thank all of the mobile money, insurance, savings, and credit providers who participated in our annual Global Adoption Survey of Mobile Financial Services, without whom the analysis in this report would not be possible.

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Foreword



We are delighted to share the annual State of the Industry Report on Mobile Money. In this cornerstone report, we highlight the latest trends and key data from the mobile money industry in 2015.

As part of our work at the GSMA, we track the industry's commitment to making mobile money a more central part of the financial lives of customers. This year's report provides new data which illustrates the impact that mobile money is having on the individual users of the service and the landscape of financial inclusion as a whole. Three findings, in particular, demonstrate its continued positive effect:

- Strong growth is emerging in new regions including South Asia, where more than a third of all registered mobile money accounts were opened in 2015.

- The industry is expanding to better serve the needs of cross-border trade and regional economies. In 2015, there were 29 cross-border mobile money initiatives connecting 19 countries—and by volume, international remittances was the fasting growing product with 52% growth over last year.

- Customers are using mobile money more than ever—in December 2015, the industry processed over a billion transactions.

However, there is more to be done. Although customers increasingly use mobile money, they continue to rely on a limited number of products. It is clear that we, as an industry, must do more to fulfil mobile money's promise to provide a range of affordable financial products and services to the underserved. For mobile money to reach its commercial and social impact potential, providers must invest in building the broader ecosystem and drive usage in new products and services. This will make mobile money more sustainable, profitable, and relevant to customers in the long term.

To support this ambition, the GSMA launched the third phase of the Mobile Money programme in 2015 with the financial support of its members, and an additional US$ 9.4 million from the Bill & Melinda Gates Foundation, The MasterCard Foundation and Omidyar Network. Over the next three years, the programme will focus on developing a mobile money ecosystem with a broad range of digital transactions to make mobile money accounts more central to the lives of customers, particularly the financially excluded and underserved.

We hope you find this report useful and we encourage you to visit www.gsma.com/mobilemoney and follow @GSMAMMU.



Mats Granryd
Director General, GSMA

OVERVIEW

Mobile money is now available in

93 COUNTRIES

271 SERVICES





In 2015

51 OF **93** COUNTRIES

have an enabling regulatory framework.

Mobile money providers are processing an average of

33 MILLION TRANSACTIONS A DAY



Registered accounts grew by



+31% TO A TOTAL OF **411M** IN DECEMBER 2015

INDUSTRY COLLABORATION IS GATHERING STEAM WITH

NEARLY **1/4** OF RESPONDENTS COLLABORATING TODAY.

At least 19 markets have

MORE MOBILE MONEY ACCOUNTS THAN BANK ACCOUNTS

37 markets have

10x MORE REGISTERED AGENTS THAN BANK BRANCHES

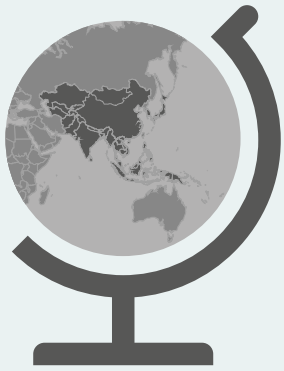
134M

ACCOUNTS WERE ACTIVE IN DECEMBER 2015 (90 DAY)

In South Asia, home to especially high OTC usage, the 19% growth (year-on-year) of OTC is dwarfed by the

47%

GROWTH IN REGISTERED ACCOUNTS



Mobile money services offering International Money Transfer (IMT) saw the volume of cross-border remittances increase by

+52%

THREE QUARTERS

of respondents maintained or increased their investment in mobile money over the previous year.

Fifteen providers reported revenues of more than

US$1M

DURING THE MONTH OF JUNE 2015

Introduction

Mobile money has done more to extend the reach of financial services in the last decade than traditional "bricks and mortar" banking has in the last century.

Today, there are 411 million mobile money accounts globally. Moreover, mobile money is available in 85% of countries where the vast majority of the population lacks access to a formal financial institution. This is an extraordinary achievement, demonstrating the power of mobile, underpinned by the important role mobile network operators have played in building this industry.

However, while the success to date is to be celebrated, the future success of mobile money depends on the industry's capacity to adapt to a changing landscape. The findings from the 2015 report provide insights on both current and future trends, giving better visibility on what is changing and how to adapt. This year, we see four trends that will impact the industry's evolution:

- With an increasingly active customer base, further development of the mobile money ecosystem will be essential to diversify customer usage.
- Operational foundations and agent management remain critical to digitise cash.
- Increased investment will be key for providers to compete in an online world.
- While mobile money is more accessible than ever before, there is still an opportunity to reach underserved segments, particularly women and rural consumers.

The full findings of the report provide a complete quantitative assessment of mobile financial services based on data collected though GSMA's annual Global Adoption Survey on Mobile Financial Services. In 2015, 107 mobile money providers from 67 countries participated in this survey.

This publication focuses on the state of the mobile money sector and industry trends. Specifically, it looks at:

- Availability and spread of mobile money services globally
- Access to mobile money services, including both physical access through agent networks and technical access through the mobile interface
- Adoption and customer activity levels, particularly how service providers drive scale
- Usage and how the industry is focusing on usage that builds the ecosystem
- Revenues and investment

The forthcoming analysis on the adoption of other mobile financial services: mobile insurance, mobile savings, and mobile credit, will be released in late spring 2016.

Key findings

1. Mobile money is now available in 93 countries via 271 services.

2. More regulators are recognising the importance of creating an open and level playing field for mobile money services, although policy improvements are still required to ensure mobile financial services reach the full addressable market and achieve financial inclusion. In 2015, 51 of 93 countries have an enabling regulatory framework.

3. Industry collaboration continues to gather steam. Nearly one-quarter of respondents reported that they currently collaborate with other mobile money services, and a third reported they were planning to collaborate in the next 12 months.

4. Agents remain the physical backbone and face of mobile money to digitise and disburse cash (versus ATMs, banks, etc.), representing more than 90.5% of the cash-in and cash-out footprint. They also account for a significant cost of doing business, with an average of 54.4% of the top 10 providers revenues going to agent commissions.

5. Mobile money is changing the landscape of financial inclusion. In 2015, 37 markets had ten times more registered agents than bank branches and registered customer accounts grew 31% to reach a total of 411 million registered accounts globally.

6. Mobile money providers processed just over a billion transactions in December 2015, which is more than double what PayPal processed globally. Furthermore, active mobile money customers conduct an average of 11.2 transactions per month and maintain a median account balance of US$ 4.70, both increases from 2014.

7. While OTC continues to be a significant part of mobile money, the growth rate is slowing, relative to the growth of account adoption. In South Asia, home to especially high OTC activity, the 19% growth (year-on-year) of OTC is dwarfed by the 47% growth in registered accounts. This promising sign suggests that the increased focus of providers to migrate OTC customers is bearing fruit.

8. Cross-border transactions were the fastest growing product in 2015. Mobile money services offering International Money Transfer (IMT) saw the volume of cross-border remittances increase by 51.8%.

9. Fifteen providers reported revenues of more than US$ 1 million during the month of June 2015, up from 11 in June 2014. All but three of these providers are MNOs, and 12 have over one million active accounts on a 90-day basis.

10. The majority of mobile money providers recognise the need for long-term investment in their service. In 2015, three-quarters of respondents maintained or increased their investment in mobile money over the previous year.



Availability

of mobile money services



Key findings

Mobile money is now available in 93 countries via 271 services.

Mobile money continues to deepen financial inclusion and is available in six out of seven markets where less than 20% of people have an account at a financial institution.

Interoperability and industry collaboration continues to gather steam with launches in three new interoperable account-to-account (A2A) markets in 2015 and more expected in 2016.

Cross-border mobile money remittance initiatives expanded to 29 corridors in 2015, connecting 19 countries by the end of the year.

More regulators are recognising the importance of creating an open and level playing field for mobile money services. In 2015, 51 of 93 countries offering mobile money had an enabling regulatory framework.

Availability of mobile money services: A global view

Mobile money continues to deepen financial inclusion. In 2015, the number of mobile money services increased to 271 in 93 countries. Moreover, according to World Bank data on global financial inclusion, mobile money services are available in 85% of countries where the number of people with an account at a financial institution is less than 20%.[1] The analysis in this chapter is based on the data from the GSMA Mobile Money Deployment Tracker.

Mobile money services are live in 64% of developing countries (86 of 135 countries),[2] a small increase from 2014 (61%). When looking at income classifications for these developing countries, mobile money is most widespread in low-income economies (81%) compared to lower-middle-income and upper-middle-income economies, where mobile money is available in 71% and 47% of markets respectively (see figure 2). In 2015, mobile money was launched in four new markets: Albania, Myanmar,[3] Peru, and Seychelles. Myanmar is classified as lower-middle-income, and Albania and Peru are upper-middle-income.

As the mobile money industry matures, the launch of new services has been slowing each year. In 2015, 13 new services were launched, compared to 30 services in 2014 and 58 services in 2013.

Sub-Saharan Africa continues to account for the majority of live mobile money services (52%), however, more than half of new services launched in 2015 were outside this region, primarily in Latin America & the Caribbean. Looking ahead, new mobile money services are expected to grow by as much as 50% in Europe & Central Asia as well as the Middle East & North Africa.

1. World Bank, Global Financial Inclusion Database (2015), Account at a financial institution (% age 15+) [2014]. Source: http://databank.worldbank.org/data/reports.aspx?source=global-findex
2. Based on the World Bank's country classification. There are seven markets where GSMA Mobile Money tracks services for the unbanked which the World Bank does not classify as 'developing': Argentina, Chile, Qatar, Seychelles, Singapore, United Arab Emirates, and Venezuela. For more information on World Bank's classification: http://data.worldbank.org/about/country-and-lending-groups
3. Myanmar was incorrectly identified as a new market last year. However, the service was still in a pilot phase, and officially launched in 2015.

FIGURE 1

Number of live mobile money services by region (2001–2015, year-end)

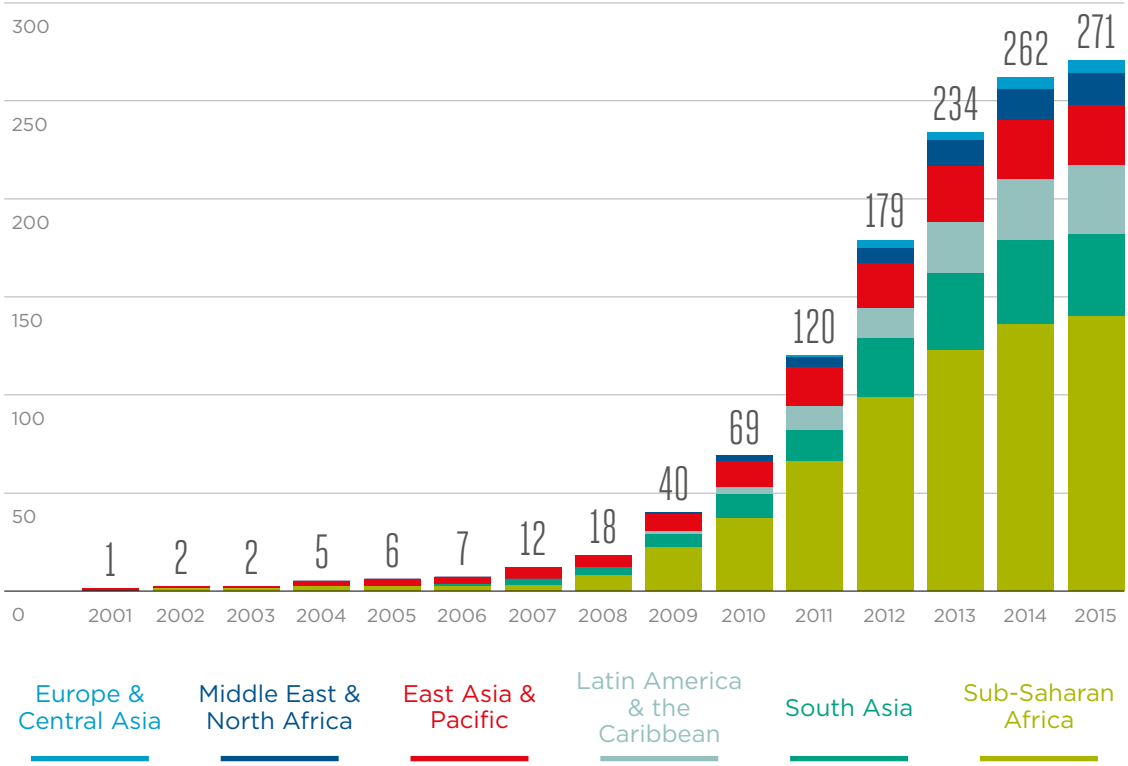
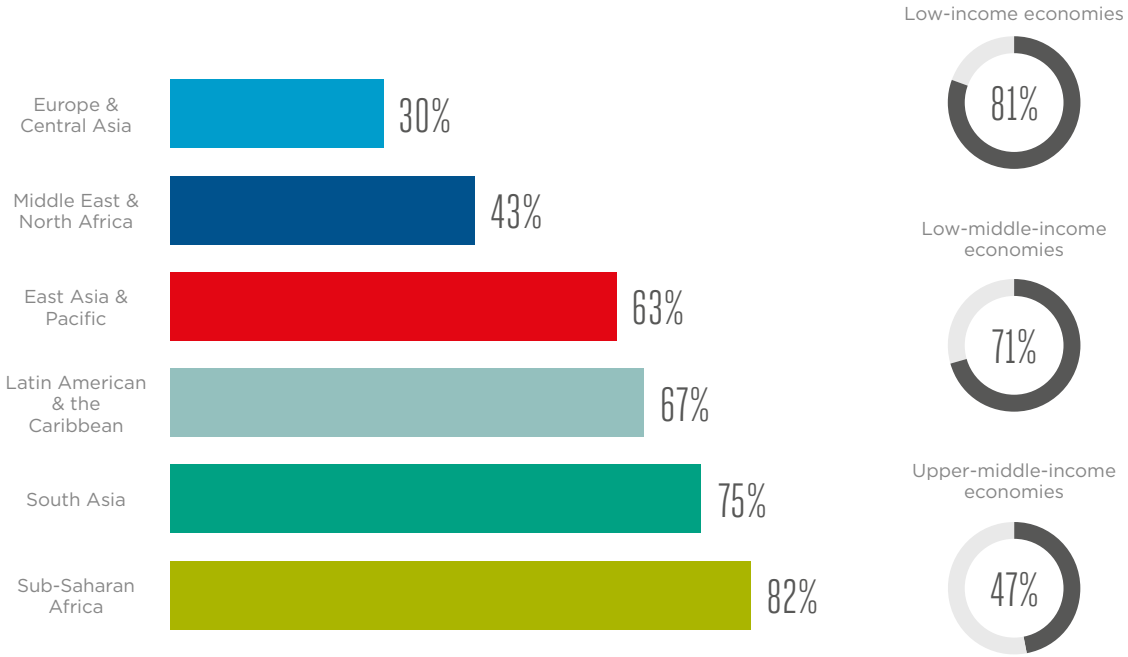


FIGURE 2

Percentage of developing markets with mobile money, by region and income level (December 2015)



TEXT BOX 1

Market types in Latin America & the Caribbean

Five services launched this year in Latin America & the Caribbean, just one less than in Sub-Saharan Africa. The mobile financial services industry in the region is noted for its diverse commercial models. At one end of the spectrum are models similar to those in East Africa, where a mobile operator assumes most of the functions in the value chain. At the other end, banks drive mobile money schemes and, in some cases, even acquire mobile virtual network operators to one day offer mobile financial services independently of mobile operators.

An analysis earlier this year of common market characteristics in the region highlighted two market types. **Type I markets** have certain characteristics which make it difficult for financial services providers to reach underserved populations through traditional banking models. As the poorest countries in the region, only 33% of adults[4] in these markets have an account at a formal financial institution. However, 57% of the total population has access to a mobile phone, making Type I markets ideal for mobile money services offered by mobile operators. Mobile operators are taking the lead in launching mobile money services in many of these markets, with some seeing high customer uptake. These markets include Bolivia, El Salvador, Guatemala, Honduras and Paraguay.

Type II markets tend to share two major features. First, banks are deeply rooted in the economy and are strong contenders to become leaders in mobile financial services in their respective countries. Second, mobile operators and retailers have achieved high penetration levels and built strong customer relationships in their core business. Multiple strong contenders have emerged to provide financial services and, in some markets, mobile operators, banks, and retailers have partnered to leverage each other's assets. In others, entrenched interests or regulatory restrictions have resulted in partnership models that not all parties approve of. Regardless of the market dynamics, however, Type II markets tend to be more integrated with existing financial and retail infrastructure, often including access to national clearing and settlement systems. These markets include Brazil, Mexico and Panama.

Other LAC markets may be hybrids of these market archetypes, or display entirely different approaches to mobile money altogether. For instance, in Peru, a group of more than 30 e-money issuers has launched an open and interoperable e-money platform. This multi-tenant, interoperable, financial industry-led scheme is the first of its kind.

This text box is based on Mireya Almazán and Jennifer Frydrych (2015), "Mobile financial services in Latin America & the Caribbean: State of play, commercial models, and regulatory approaches". Available at www.gsma.com/mobilefordevelopment/wp-content/uploads/2015/09/2015_GSMA_Mobile-financial-services-in-Latin-America-the-Caribbean.pdf

4. A weighted average for Type I markets.

Interoperability and industry collaboration continue to gather steam

As of December 2015, almost two-thirds of markets where mobile money is available have two or more live mobile money services (60 of 93 markets) and more than one third have three or more live mobile money services (35 markets, with a median of five services per market). With competition continuing to intensify in markets, so too does interest in interoperability.

65%
of markets have two or more live mobile money services.

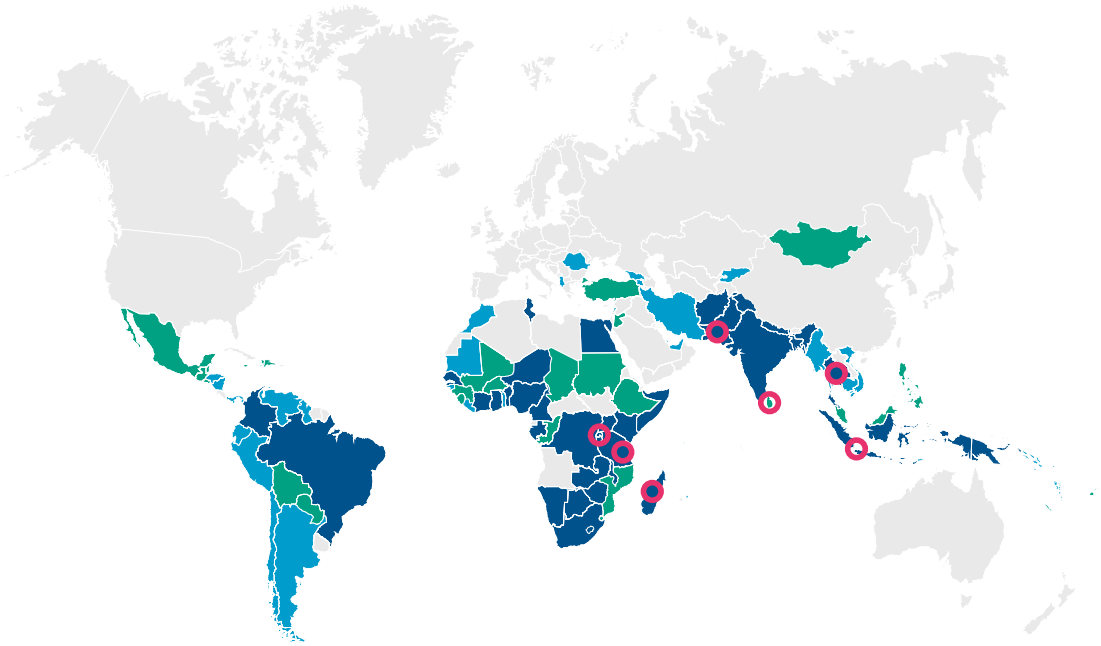
This year, mobile network operators (MNOs) interconnected their services in three new markets—Madagascar, Rwanda, and Thailand. This follows the implementation of interoperability in Indonesia, Pakistan, Sri Lanka, and Tanzania in 2014 and 2013 (see figure 3). Providers in the Philippines are also preparing to launch interoperability in 2016. Additionally, mobile money services in Bolivia, Peru and Mexico—which are already interoperable with the banking sector—are on their way to full account-to-account (A2A) interoperability in mobile money. By allowing customers to transact between different mobile money schemes, A2A interoperability aims to increase the value of mobile money for providers and customers alike, including a larger addressable market and enhanced customer experience.

Industry collaboration is critical for domestic interoperability as well as launching a new product with other mobile money providers. One recent example of a new product launch accelerated by industry collaboration was a successful school registration fees payment initiative in Côte d'Ivoire.[5] This year, survey respondents were asked to report whether they collaborate with other mobile money services on a specific product in their markets. Almost one-quarter of respondents reported that they currently collaborate with other mobile money services, and an additional 31% of respondents reported they were planning to collaborate in the next 12 months.

5. Jennifer Frydrych, Claire Scharwatt and Nicolas Vonthron (2015), "Paying school fees with mobile money in Côte d'Ivoire: A public-private partnership to achieve greater efficiency". Available at: http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2015/10/2015_GSMA_Paying-school-fees-with-mobile-money-in-Cote-dIvoire.pdf

FIGURE 3

Number of live and interoperable mobile money services, by country (December 2015)



One mobile money service

Two mobile money services

Three or more mobile money services

Interoperable markets

Cross-border mobile money remittances expand availability

In addition to greater industry collaboration within markets this year, there has also been collaboration between mobile money providers across borders. Cross-border mobile money remittances, whereby mobile money is both the sending and receiving channel for international remittances, gathered momentum in 2015.[6] As of the end of December, the GSMA tracked at least 29 cross-border mobile money remittance corridors connecting 19 countries (see figure 4). A range of use cases is driving customer uptake, including regular and seasonal remittances from economic migrants, as well as cross-border trade.

The majority of these initiatives are in West Africa, though more providers in East Africa are following suit. West Africa is well positioned to enable cross-border mobile money remittances, as member states of the West African Economic Monetary Union (WAEMU) are socio-economically integrated and the adoption of mobile money has been rapid in recent years.[7] Initiatives are also live in the Philippines and Singapore, as well as in Qatar (where international migrants make up 74%[8] of the population). The volumes and usage patterns of cross-border mobile money remittances are discussed in more detail in the usage chapter of this report.



GSMA tracked at least 29 cross-border mobile money remittance corridors connecting 19 countries as of December 2015

6. These cross-border mobile money remittance initiatives are partnerships solely between mobile money providers. In this model, funds are transferred directly from the sender's mobile money account to the receiver's mobile money account, without the assistance of a traditional Money Transfer Operator (MTO) to provide the cash-out service on the receiver end.
7. Claire Scharwatt and Chris Williamson (2015), "Mobile money crosses borders: New remittance models in West Africa", GSMA Mobile Money for the Unbanked. Source: http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2015/04/2015_MMU_Mobile-money-crosses-borders_New-remittance-models-in-West-Africa.pdf
8. United Nations (2013), "International Migration 2013". Source: http://www.un.org/en/development/desa/population/migration/publications/wallchart/docs/wallchart2013.pdf

FIGURE 4

Live corridors for cross-border mobile money remittances initiatives (December 2015)



Service availability - a regulatory view

In order for mobile money providers to continue to offer valuable services and contribute to financial inclusion, an enabling regulatory environment is critical. In particular, having an enabling regulatory approach has a dramatic impact on both the development of a mobile money market and financial inclusion in general.

Mobile network operators continue to play a leading role in delivering mobile money and deepening financial inclusion—69% of services launched in 2015 are operationally run by MNOs, and 58% of all live services are MNO-led.[9] Therefore, it is critical for regulators to continue to create an open and level playing field for mobile money services, which will allow both banks and non-bank providers to offer these services. MNOs are particularly well suited to building sustainable services and extending the reach of the formal financial sector rapidly and soundly.[10] Enabling regulation is key to unleashing market potential because it allows both the provider to build a functional distribution network to expand financial access, as well as allowing customers to adopt and use the service.[11]

As of December 2015, an enabling regulatory approach[12] was present in 51 of the 93 countries where mobile money is available, an increase from 2014 (where 47 of 89 countries had enabling regulation). In 2015 there were changes to regulation in 10 countries (Colombia, El Salvador, Ghana, Guinea, Kyrgyzstan, Morocco, Mozambique, Nigeria, Sierra Leone, and Tanzania) and within the WAEMU.

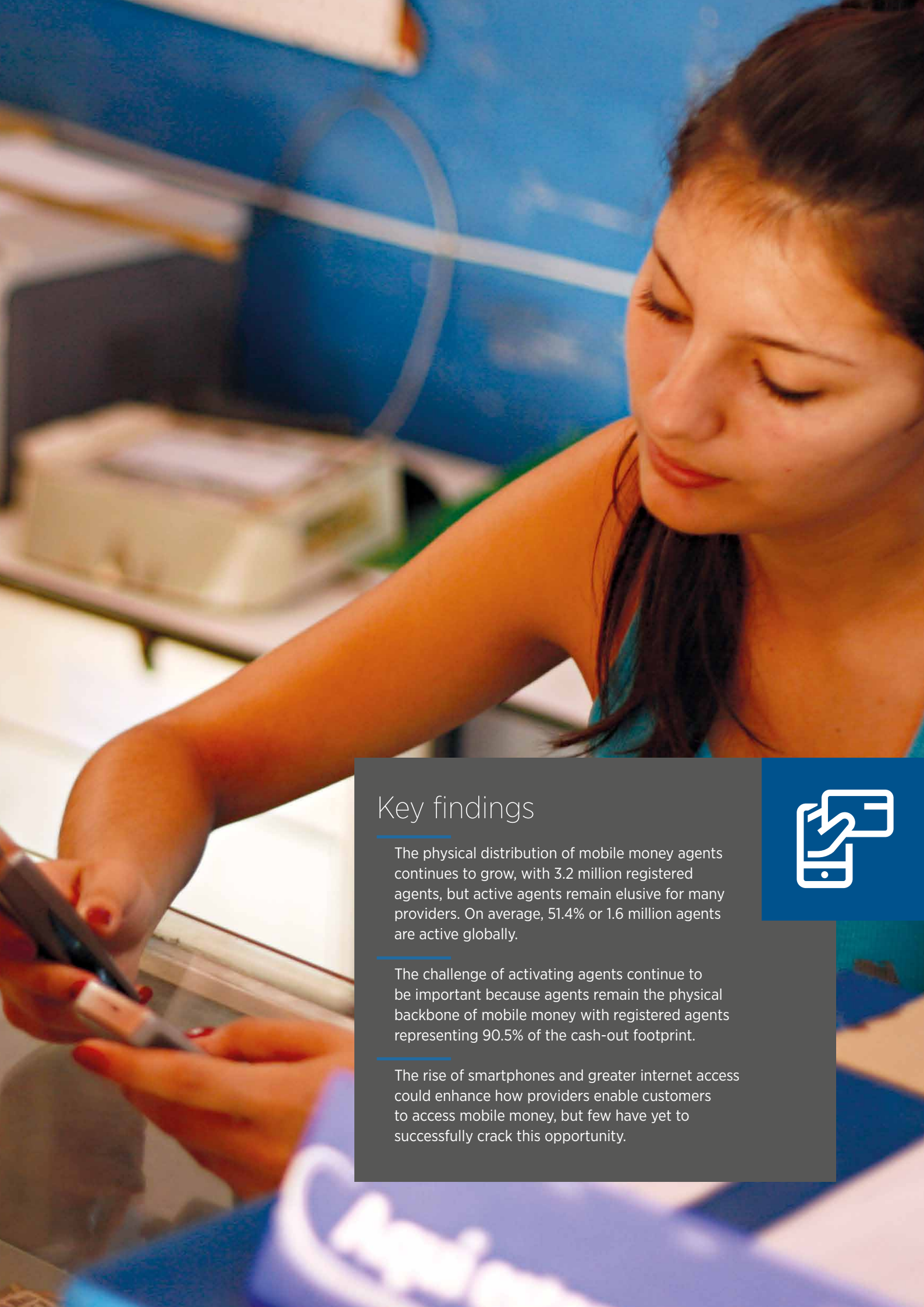
9. A mobile money service is operationally run by a mobile network operator (MNO) when the MNO is ultimately responsible for the design and implementation of the majority of the operational strategy, including distribution, marketing and customer care.
10. Simone di Castri (2015), "Is regulation holding back financial inclusion? A look at the evidence", GSMA Mobile Money. Source: http://www.gsma.com/mobilefordevelopment/programme/mobile-money/is-regulation-holding-back-financial-inclusion-a-look-at-the-evidence/
11. Ibid.
12. By an 'enabling regulatory approach' we mean that the rules established by the regulator:
    - Permit non-banks to issue electronic money (or equivalent) by allowing them to:
        - be licensed directly, OR
        - set up a subsidiary for this business, OR
        - apply for a payments bank (or equivalent) license, OR
        - provide the mobile money service under a letter of no-objection to the non-bank or its partner bank, pending the approval of a specific regulation
    - AND impose initial and ongoing capital requirements that are proportional to the risks of the e-money business,
    - AND permit them to use agents for cash-in and cash-out operations,
    - AND do not prescribe the implementation of specific interoperability models without allowing for a market-led approach.

    See Simone di Castri (2013), "Mobile Money: Enabling Regulatory solutions", GSMA Mobile Money for the Unbanked. Available at: http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2013/02/MMU-Enabling-Regulatory-Solutions-di-Castri-2013.pdf



Accessibility

of mobile money services



Key findings

The physical distribution of mobile money agents continues to grow, with 3.2 million registered agents, but active agents remain elusive for many providers. On average, 51.4% or 1.6 million agents are active globally.

The challenge of activating agents continue to be important because agents remain the physical backbone of mobile money with registered agents representing 90.5% of the cash-out footprint.

The rise of smartphones and greater internet access could enhance how providers enable customers to access mobile money, but few have yet to successfully crack this opportunity.

Physical and technical access remain critical

Mobile money has transformed the financial services landscape in many developing markets, both complementing and disrupting traditional "bricks and mortar" banking. By leveraging near-ubiquitous mobile penetration and building agent infrastructure, mobile money has introduced a high-volume, low-margin business model that can work for the mass market.

This section analyses the two channels customers rely on to access mobile money. The first is the network of physical access points where customers can typically deposit cash into, or take cash out of, their mobile money account. These access points are primarily agents. The second is the technical access channel—the interface customers use to initiate transfers and payments directly on their mobile handsets.

Ease of access to mobile money continues to be a key enabler for driving adoption. The user interface of mobile money is expected to change substantially in the next three to five years as smartphones and mobile broadband become more available to the unbanked. However, there is currently no scalable alternative to agents, which continue to be the primary mechanism for digitising and disbursing cash.

Registered agents continue to grow, but active agents remain elusive for many

In December 2015, there were 3.2 million registered agents globally—a 25.2% increase year-on-year but a noticeable decline from the 53.1% growth in 2014.[13] In terms of active rates, the total number of mobile money agents facilitating at least one transaction in December 2015 grew by 23.5% to 1.6 million active agents, making the global average active rate 51.4%. This active rate is down slightly from 52.1% in 2014. This suggests that, overall, registered agents and active agents grew at the same pace and both show a mild deceleration globally.

37
markets with
10×
as many registered agents as commercial bank branches

However, agents vastly outnumber bank branches in a growing number of markets. In 2015, 37 markets had 10 times more registered agents than commercial bank branches, up from 25 markets in 2014. Moreover, 30 of these markets reported at least 10 times as many active agents as commercial bank branches, illustrating the persistent global spread of mobile money. As this list grows, it continues to diversify beyond East Africa and includes several entrants in Asia, such as Bangladesh, Pakistan and Thailand.

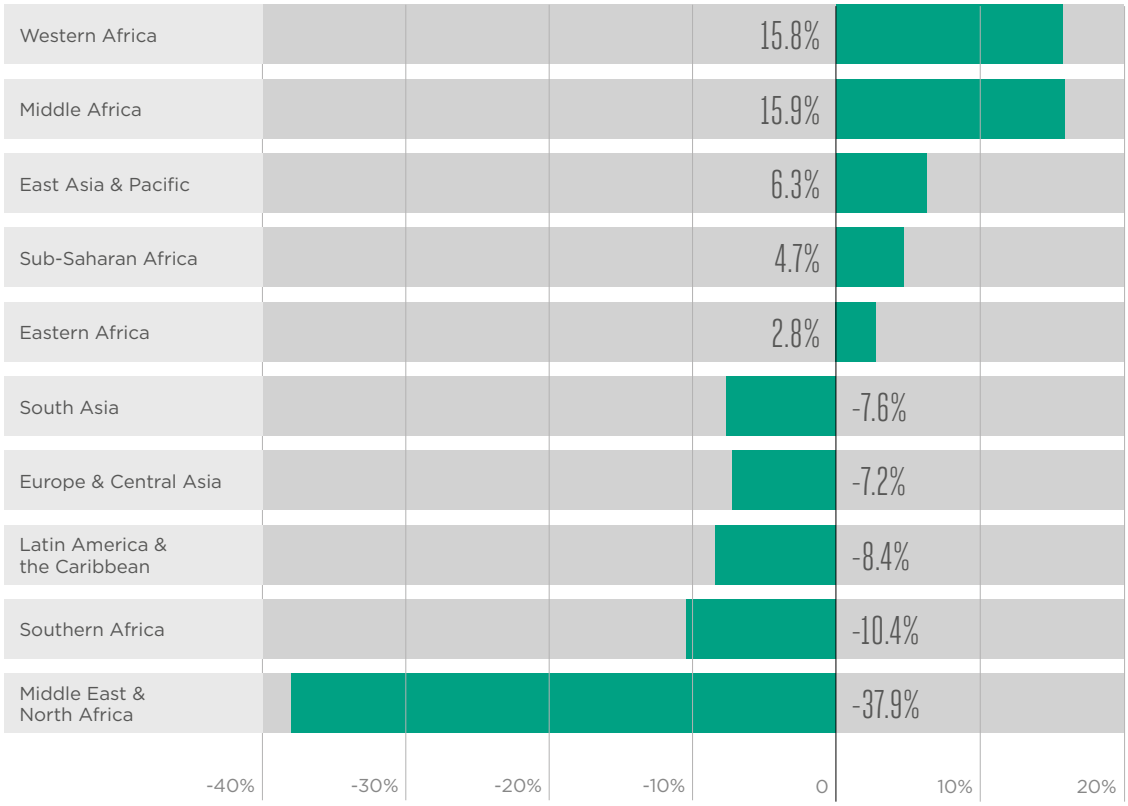
Although the proliferation of agents continues, building active agent networks remains a challenge for most providers. In December 2015, five regions experienced a lower annualised growth rate among active agents than registered agents (see figure 5). This can be explained in part by a natural lag in more nascent regions, such as the Middle East & North Africa,

13. The 2014 State of the Industry report estimated 2.3 million registered in December 2014. This figure has subsequently been updated with reported data from the 2015 Global Adoption Survey. The updated figure for December 2014 is 2.5 million registered accounts.

where recent regulatory approval has given providers more flexibility in agent registration. In other regions, such as Southern Africa and Latin America & the Caribbean, agent activation is challenging for a range of reasons, including a restrictive regulatory environment, a lack of commercial investment, or a particularly complex market context. In some cases, mobile money providers partner with large retail chains, which has the effect of adding significant numbers of agents to their registered base before many of them become trained and activated.

FIGURE 5

Difference in annual growth rates between active and registered agents, by region (December 2015)



The chart above illustrates where growth in active agents has exceeded or lagged behind growth in registered agents *(active growth rate minus registered growth rate)*. A healthy mobile money metric is produced when the growth in active agents is equal to or exceeds the growth in registered agents. Sub-Saharan Africa is broken into sub-regions due to the wider availability and more regional variation in this particular continent.

However, there are regions growing from strength to strength. In 2014, the Mobile Money programme published a case study on the mobile money turnaround story in Côte d'Ivoire.[14] In 2015, growth across West Africa was dramatic, with Burkina Faso, Mali, Ghana, and Côte d'Ivoire all contributing to the substantive regional turnaround. In 2015, year-on-year growth in active agents was 60.1%, which was twice the growth rate of any other region.

Active agent growth in West Africa was

2x

as high as any other region globally

14. Claire Scharwatt (2014), "Mobile Money in Cote d'Ivoire: A turnaround story", GSMA Mobile Money for the Unbanked. Source at: http://www.gsma.com/mobilefordevelopment/programme/mobile-money/mobile-money-in-cote-divoire-a-turnaround-story/

The challenge of activating agents remains important because agents remain the backbone of mobile money. Agent activation remains a challenge, with a persistent gap between registered and active agents reported since the GSMA's first Global Adoption Survey in 2011. However, agents are still the core of the mobile money system—moving cash both in and out—and require ongoing operational management and investment.

In June 2015, registered agents represented 90.5% of mobile money's physical cash-in and cash-out global footprint, whereas ATMs represent 7.8% and banks represent 1.7%. While banks remain a key enabler of mobile money—56.3% of all providers reported to be leveraging banks as part of their network—agents are the cornerstone. Other cash-in and cash-out mechanisms, particularly the penetration of ATMs, can vary substantially depending on the market. For example, ATMs play a more substantial role in higher-income markets with more financial infrastructure, such as Qatar, Mexico, Brazil and Indonesia, where there are between five and 25 ATMs available for mobile money per active agent. However, for the majority of providers, the challenge of agent activation will persist until global active rates are closer to what we see in East Africa (where nearly 70% of the network was active in December 2015) or until there is a substantive and scalable alternative to cash-in and cash-out transactions.

Fresh approaches to drive activation by re-examining who and where to recruit

While the only consistent predictor amongst providers that have enjoyed higher than average active rates is long-term investment,[15] a growing number are testing new tactics to drive agent activation, particularly who and where to recruit. These tactics are not shortcuts to operational best practice, but rather are being tested to reach previously excluded or underserved customers.

A few forward-looking providers are refreshing their approach to who they recruit, and are considering the network benefits female agents could bring. In early 2015, the GSMA published new research calculating the gender gap in mobile access and usage, which found that closing the gender gap in mobile ownership and usage could add an additional US$ 170 billion to the industry by 2020. A major contributing factor to the gender gap in mobile money was a lack of trust at the agent point. According to the report, "the social norms around how women and men make financial decisions in a household, the 'appropriateness' of men and women interacting with sales agents of the opposite sex, and community perceptions of male and female roles, all influence mobile phone ownership and usage."[16] This year, 18 providers reported the gender composition of their agent base and based on responses, an average of 23.9% were women. While still a minority in the industry, they represented at least one provider from each region, with one-third reporting more than a million active customers.

Providers are also re-examining where to build their networks, and are exploring the opportunities and challenges of expanding into rural areas. In 2015, 36 providers reported knowing the percentage of rural agents in their network: 45.8% on average. This figure is not indicative of the industry at large, in part because there is no consistent definition of 'rural'. However, it is a consistent representation of providers, year-on-year from similar market types. Nearly 90% of these

15. Mireya Almazán and Nicolas Vonthron (2014), "Mobile money profitability: A digital ecosystem to drive healthy margins", GSMA Mobile Money for the Unbanked. Available at: http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2015/11/2014_Mobile-money-profitability-A-digital-ecosystem-to-drive-healthy-margins.pdf

16. Shireen Santosham, Dominica Lindsey, and Altai Consulting (2015), "Bridging the gender gap: Mobile access and usage in low-and middle-income countries", GSMA Connected Women. Available at: http://www.gsma.com/connectedwomen/wp-content/uploads/2015/02/GSM0001_02252015_GSMAReport_FINAL-WEB-spreads.pdf

providers operate in predominantly 'rural' markets,[17] so in terms of commercial viability, rural means scale. In 2015, in partnership with Orange and Millicom, GSMA released new research on rural agents to provide greater clarity on how to create an active and sustainable agent network in areas lacking basic infrastructure (see text box 2).

TEXT BOX 2

Spotlight on rural supply: Key findings from Mali and Chad

Whether or not mobile money successfully reaches rural communities depends on the ability of providers to create, manage, and sustain an agent network within these communities. GSMA research from Mali and Chad not only reveals rural agents operating successfully in the absence of infrastructure, but also that providers need only adapt, not abandon, best practice to increase the likelihood of creating more successful rural agents. Key findings include:

- **Local context matters, and data can help to prioritise areas for growth:** In both Mali and Chad, economic context was a consistent predictor of success for rural agents, suggesting that prioritising growth by region has a higher return on investment than organic growth.

- **Focus investment on fewer and more specific rural profiles:** In both Mali and Chad, successful rural agents exhibit different characteristics than successful urban agents. Despite some variation in market context, rural agents tend to be older, with more established businesses and a broader product portfolio and, in Mali, are the first to market. These variations between urban and rural highlight two main differences: alternative demand profiles and unique operational requirements.

- **Effective master agents can bridge the liquidity gap:** Access to cash and e-money underpins most of the challenges of operating in rural or remote areas. In the absence of traditional banking, master agents become the critical liquidity line for agents who are otherwise disconnected. Poor management, lack of investment, or inadequate incentives from the provider to the master agent result in a lacklustre master agent managing lacklustre agents.

- **Evaluate the role of provider collaboration in the rural context:** Sharing infrastructure costs in rural areas is one potential way for providers to substantially expand the reach of mobile money services in rural areas. In Chad, the most significant determinant of success was whether a rural agent offered Airtel Money in addition to Tigo Cash. Agent interoperability remains largely untested, however, due to a persistent lack of clarity on the operational implications, business model, and strategic rationale. Could rural areas be an appropriate context for testing new approaches to industry collaboration?

This text box is based on "Spotlight on rural supply: Critical factors to create successful mobile money agents" (2015). The full report is available at http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2015/10/2015_GSMA_Spotlight-on-Rural-Supply-Critical-factors-to-create-successful-mobile-money-agents.pdf

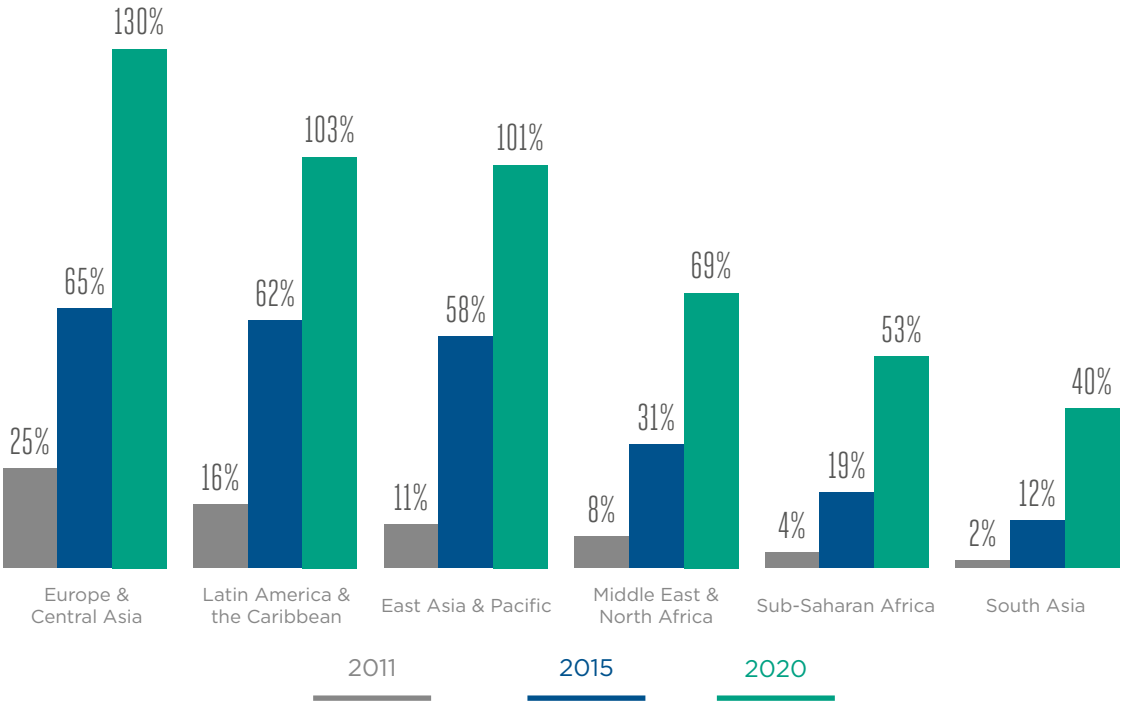
17. This definition is adapted from GSMA research. Lara Gilman, Janet Shulist, and Altai Consulting (2015), "Spotlight on rural supply: Critical factors to create successful mobile money agents". "At a macro level, there is significant variation in the definition of 'rural'. For this analysis, 'rural markets' are defined as developing low-income markets with greater than 30% GDP from agriculture. To control for the impact of regulation, markets without an 'enabling regulatory approach' were removed from the analysis." Available at: http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2015/10/2015_GSMA_Spotlight-on-Rural-Supply-Critical-factors-to-create-successful-mobile-money-agents.pdf

Smartphones and internet access could enhance access to mobile money, but few have successfully cracked this opportunity

Although the mobile money industry has yet to see a scalable alternative to building an agent-based distribution model, the technical interface is about to be substantially disrupted by the rise of smartphones and greater access to mobile broadband.

FIGURE 6

Mobile broadband access in emerging markets[18]

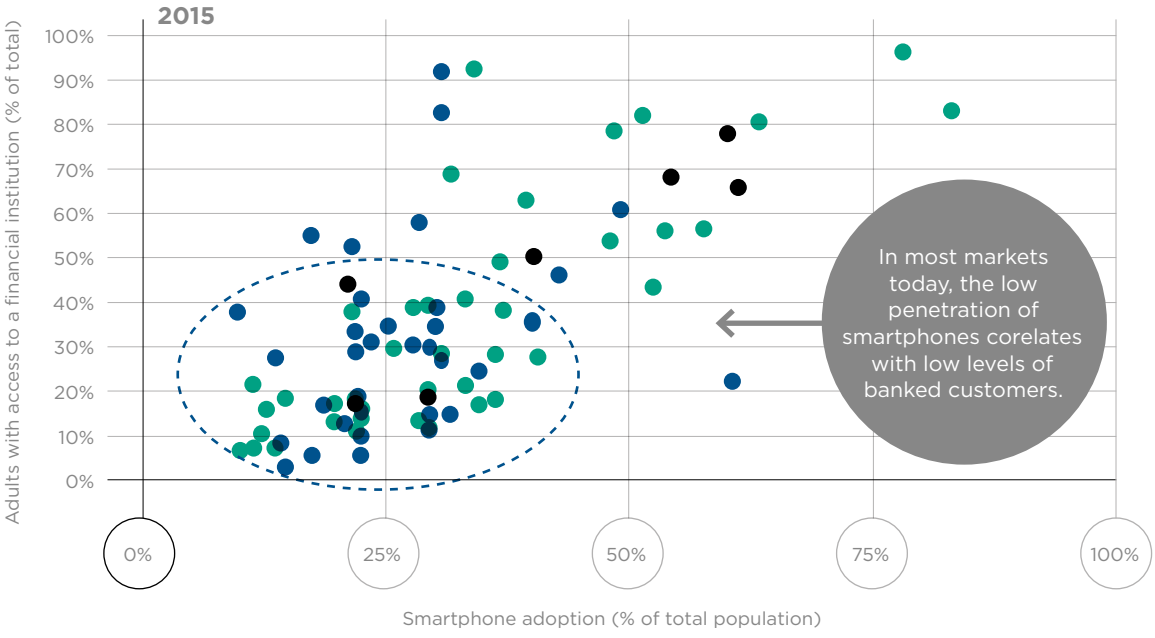


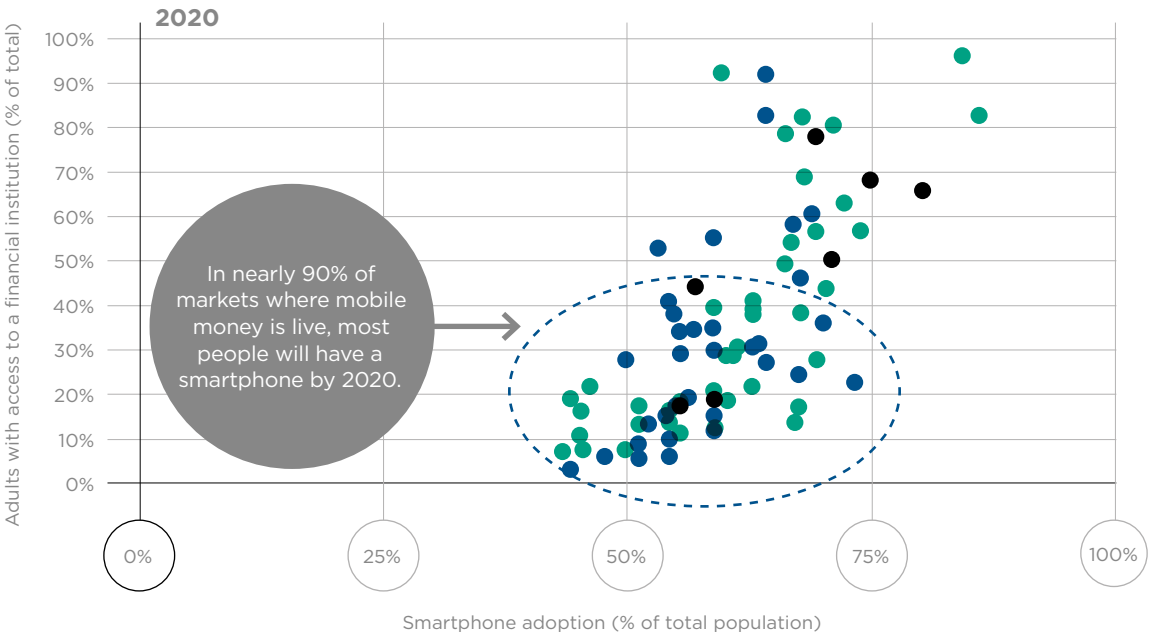
The rise in smartphone adoption and mobile broadband usage will no longer be a developed market phenomenon, given the rate of growth in emerging markets due to falling manufacturing costs of smartphones. In India, for example, there were 185 million smartphone connections in mid-2015 and a half billion more new connections are expected by 2020.[19] We also anticipate smartphone growth will outpace the rate of growth of traditional bank accounts. In 2015, few markets with a high percentage of unbanked adults demonstrated strong smartphone or mobile broadband penetration. This dynamic will change by 2020, however, as more markets with a large unbanked population will have access to mobile broadband, or at least a smartphone (see figure 7). In this context, apps will become standard.

18. Source: GSMA Intelligence
19. GSMA Intelligence (2015), "The Mobile Economy, India". Available at: https://gsmaintelligence.com/research/?file=4113a57d43a9e93968e7ed00123ba4b2&download

FIGURE 7

Comparing bank access to smartphone adoption, by country (2015 vs. 2020)[20]





Country where no providers currently offer an app

Country with at least one provider offering an app

Country with at least one provider processing more than 15% of volumes via app

20. GSMA Intelligence, World Bank Data on Financial Inclusion, 2015 GSMA Global Adoption Survey of Mobile Financial Services

While app development is increasingly common, usage of mobile money apps remains low. According to the 2015 survey results, apps were the second most common channel offered by mobile money service providers after USSD, but only eight providers reported having more than 1,000 active accounts (90 days) and more than 15% of total transaction volumes through the app.

Apps will become increasingly available as an option to reach customers, however this early data showing few apps with any volume suggests that apps also create a potential pitfall of "build it and they will come." To capitalise on the opportunity that apps present, providers must continue to invest in a relevant and robust customer engagement strategy. In the context of this strategy, apps will be a powerful mechanism to interact with a growing and changing customer base.

TEXT BOX 3

UX and security: Key cornerstones to unlock the potential of apps

Smartphones will play an increasingly important role in the next generation of digital financial inclusion. Cheaper devices, innovative pricing models and data-ready mobile networks are contributing to an accelerated pace of smartphone adoption. The underlying trend suggests that for users, apps are becoming a basic necessity, not just an additional access option.

As CGAP noted in its study, "Doing Digital Finance Right",[21] one of the key issues affecting uptake of mobile money services is good user experience. When designing apps, mobile money providers should take into account best practices on user experience for small, touch-enabled smartphone screens. Other aspects, such as optimised data access, should be considered as well. As a starting point, developers can refer to the GSMA TS.20 reference document, "Smarter Apps for Smarter Phones,"[22] which helps developers create fit-for-purpose apps optimised for any network constraints or limitations on battery life.

The second critical part of developing a sustainable app is security. Apps introduce a security trade-off, moving from a "walled" operator-driven channel, such as USSD, to apps in a smartphone with internet access. Malware, internet, and OS-based attacks could potentially compromise user data.

Creating secure and user-friendly apps is an area where the Latin America & Caribbean region is taking the lead. Brazilian mobile money deployment, Zuum, was recently acknowledged for passing app security tests. Zuum invested heavily in app development and benefited from strong financial and banking systems that already relied on internet-based channels, as well as a stringent set of security rules, particularly for applications.

Mobile money providers around the globe take customer security very seriously, and app development discussions involve compromises between user experience, security and development costs.

This text box is based on a blog post written by Tiago Novais, "Mobile money smartphone apps: Trends from Latin America," (2016). Available at: http://www.gsma.com/mobilefordevelopment/programme/mobile-money/mobile-money-smartphone-apps-trends-from-latin-america/

21. McKee, K., Kaffenberger, M. and Zimmerman, J. (2015), "Doing Digital Right: The Case for Stronger Mitigation of Customer Risks." Available at: http://www.cgap.org/sites/default/files/Focus-Note-Doing-Digital-Finance-Right-Jun-2015.pdf
22. GSMA (2014), "Smarter Apps for Smarter Phones." Available at: http://gsmaterminals.github.io/Developer-Guidelines-Public/

Adoption

of mobile money services





Key findings

Mobile money has significantly contributed to changing the financial inclusion landscape, particularly in Sub-Saharan Africa, where 19 markets have more mobile money accounts than bank accounts.

With a 31% increase in 2015, the number of registered mobile money accounts grew at the same pace as in 2014, reaching a total of 411 million globally. Nearly 100 million new accounts were opened in 2015, primarily in Sub-Saharan Africa and South Asia.

With 134 million 90-day active accounts, mobile money is nearing the same level of adoption as PayPal, which records 173 million active users globally. Although active rates have remained stable at 32.6%, the share of accounts with a positive balance reached 46% in June 2015, indicating a growing level of trust amongst mobile money users.

At least 37 million unregistered customers performed mobile money transactions over-the-counter in June 2015, marking a deceleration in the growth of formal over-the-counter customers from 2014.

Evaluating the reach of mobile money is promising, but still challenging. A small but growing number of providers are reporting gender and rural/urban data; mobile money adoption in these underserved communities remained stable in 2015.

A changing financial inclusion landscape

With 271 live services across the majority of the developing world, the reach of mobile money is extensive. Adding to this, mobile money is showing its potential to change the landscape of financial inclusion for unbanked or underserved people. According to the World Bank's data on financial inclusion,[23] the number of unbanked adults has fallen from 2.5 billion in 2011 to 2 billion in 2014. In Sub-Saharan Africa, the impact of mobile money is most pronounced as the number of adults with a mobile money account has increased by ten percentage points, from 24% in 2011 to 34% in 2014.[24]

Equally, the reach of mobile money continues to be apparent based on the results of the GSMA Global Adoption Survey. In 2015, 19 markets have more mobile money accounts than bank accounts. Chad, Ghana and Liberia joined the list from 2014, which also includes Burundi, Cameroon, Democratic Republic of the Congo, Gabon, Guinea, Kenya, Lesotho, Madagascar, Paraguay, Rwanda, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe.[25]

This section provides an analysis of the scale of account adoption and highlights key regional variations and trends. The gender and the rural/urban composition of users is also explored.

The numbers are in: New regions are on the rise

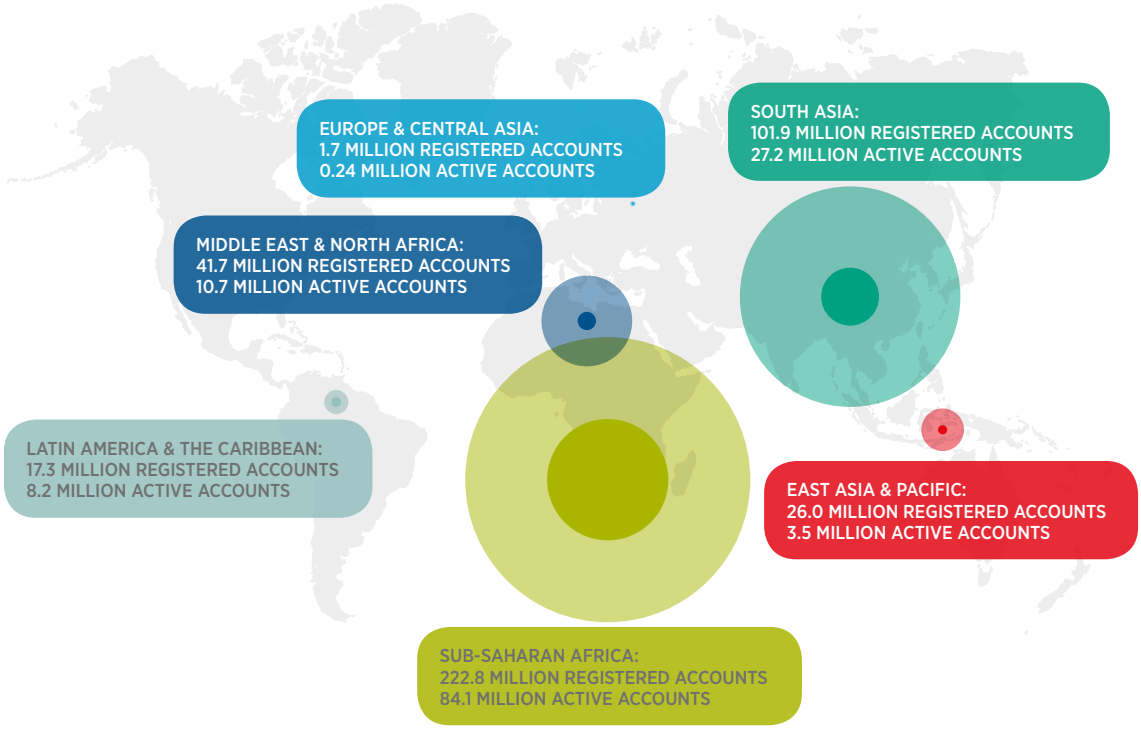
With a 31% increase in 2015, the number of registered mobile money accounts grew at nearly the same pace as in 2014 (33%), reaching a total of 411 million globally. This is almost 100 million new registered accounts in 2015.[26] However, South Asia and Sub-Saharan Africa showed the strongest growth in adoption, accounting for 85% of all new accounts opened in 2015. In Sub-Saharan Africa, we see the majority of growth coming from outside the mature mobile money markets of East Africa—63% of all accounts opened in Sub-Saharan Africa in 2015 were in Middle, West, and Southern Africa.

The penetration of mobile money is also deepening relative to mobile connections. In markets where mobile money is available, 10% of mobile connections are now linked to a mobile money account, compared to 8% as of December 2014.[27] Across Sub-Saharan Africa, one in three mobile connections is linked to a mobile money account as of December 2015. Of all sub-regions, East Africa recorded the highest level of mobile money penetration (55%), which is more than twice the level of smartphone penetration (19.4%). The most impressive growth occurred in West Africa, where the percentage of mobile connections linked to a mobile money account increased by nearly six percentage points in 2015 to reach 19.6%. While there is still room for growth, the number of mobile money accounts is increasing faster than the number of mobile connections in countries where mobile money is available.

23. World Bank, Global Financial Inclusion Database (2015), Account at a financial institution (% age 15+) [2014]. Available at: http://databank.worldbank.org/data/reports.aspx?source=global-findex
24. Ibid.
25. This number may be even higher as data on the number of bank accounts was not available for a number of countries. The data on bank accounts are from the IMF Financial Access Survey Database and Central Bank sources where IMF data was not available. There was no data available for the following countries: Albania, Benin, Burkina Faso, Côte d'Ivoire, Ethiopia, Guinea-Bissau, Iran, Kyrgyzstan, Mali, Niger, Nigeria, Qatar, Romania, Senegal, Sierra Leone, Singapore, Somalia, Sri Lanka, Sudan, Timor-Leste, Togo, Tunisia, and Vietnam.
26. The 2014 State of the Industry report estimated 299 million accounts in December 2014. This figure has subsequently been updated with reported data from the 2015 Global Adoption Survey. This updated figure for December 2014 is 315 million registered accounts.
27. Calculation based on GSMA Intelligence data of markets where mobile money is live.

FIGURE 8

Numbers of registered and active (90 day) customer accounts, by region (December 2015)



TEXT BOX 4

Accelerating financial inclusion via mobile money: Insights from the World Bank's 2014 Global Findex

For the last five years, the GSMA Global Adoption Survey of Mobile Financial Services has been capturing supply-side data from mobile money providers to assess the penetration of mobile money both at a regional and global scale. Conversely, the Global Findex survey provides demand-side information focusing on how the unbanked around the world manage their finances and plan for the future using different types of formal and informal financial services. Combining the findings from both surveys provides a comprehensive picture of how the mobile industry has helped to change the financial inclusion landscape and reach the unbanked via mobile money.

How did the financial inclusion landscape change between 2011 and 2014?
According to the Global Findex, the share of adults with an account increased by 11 percentage points globally, from 51% in 2011 to 62% in 2014. More specifically, 60% of adults globally had an account at a formal financial institution only, 1% had a mobile money account only, and 1% had both a mobile money account and an account at a formal financial institution. As a result, the number of unbanked fell from 2.5 billion in 2011 to 2 billion in 2014. In developing economies, the gender gap remains steady, with a nine percentage point difference: while 59% of men reported having an account in 2014, only 50% of women did.

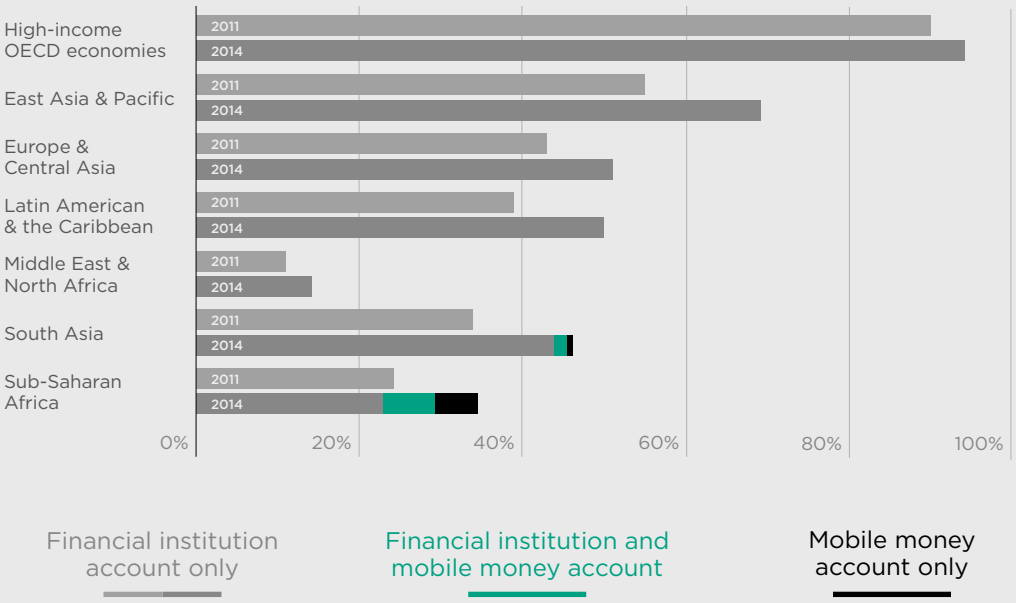
What role has mobile money played in driving financial inclusion?
While the increase in account adoption was mainly in financial institution accounts, Sub-Saharan Africa was the exception. In this region, mobile money accounts drove the growth in overall account penetration. The number of adults who had a mobile money account grew ten percentage points across the region to 34% in 2015. In East Africa, where mobile money accounts are most common, overall account penetration increased by nine percentage points, reaching 35% of overall account penetration in the region. This nine point growth is impressive considering the share of adults with an account at a formal financial institution has remained steady at 26% since 2011.

What does the Global Findex data tell us about the mobile money landscape?
While only 2% of adults worldwide report having a mobile money account, the Global Findex data found that this reached 12% in Sub-Saharan Africa in 2014. Interestingly, only half of mobile money account owners in this region also have an account at a formal financial institution, indicating that for a large number of people in this region, mobile money has become a critical first step towards financial inclusion.

The Global Findex data also reveals 13 countries around the world where at least 10% of adults are using mobile money, all of which are in Sub-Saharan Africa, with Kenya showing the highest level of penetration at 58%. In five of these 13 countries—Côte d'Ivoire, Somalia, Tanzania, Uganda, and Zimbabwe—more adults reported having a mobile money account than an account at a formal financial institution. Sub-Saharan Africa has therefore confirmed itself once again as the global epicentre of mobile money.

Outside Sub-Saharan Africa, mobile money account ownership remains low. The share of adults with a mobile money account is only 3% in South Asia, 2% in Latin America & the Caribbean, and less than 1% in all other regions.

Account penetration from the Global Findex (2011 and 2014)



To learn more about the World Bank's Global Findex data: http://www.worldbank.org/en/programs/globalfindex

Increasing trust among active users

In December 2015, there were 134 million active mobile money accounts in 93 countries on a 90-day basis.[28] This number is equivalent to more than three-quarters of PayPal's reported 173 million users across 203 markets.[29] Moreover, 30 services have more than one million 90-day active accounts and five services have more than five million.

Although active rates on a 90-day basis remained stable at 32.6%, the share of accounts with a positive balance reached 46% in June 2015, suggesting an increasing level of trust amongst mobile money users. In East Asia & Pacific, the number of accounts with a positive balance doubled between September 2014 and June 2015. This was the highest level of growth across all the regions. Of all the accounts globally which had a positive balance, the majority, were in South Asia (55.6%).

The average balance held has increased for over three-quarters of respondents, with a median balance of US$ 4.70 in June 2015. Seven of the 38 survey respondents who reported data on account balance saw the average balance increase by over US$ 10 between September 2014 and June 2015. Four of them are in Asia and offer services delivered primarily over-the-counter, suggesting that storage of value could be part of a compelling value proposition to encourage customers to open mobile money accounts.

28. 89 million mobile money accounts were active on a monthly basis in December 2015.
29. Source: PayPal data available at https://www.paypal.com/us/webapps/mpp/about

Reaching women and rural customers

More mobile money providers are actively tracking data on the gender and rural/urban split of their customer base to capture the social and commercial opportunities of reaching these underserved segments. Although this has not yet translated into greater penetration of mobile money services, the fact that mobile money providers have begun to look at untapped market segments is promising:

- **Female customers** – 39.2% of survey respondents reported the gender composition of their customer base. This is significantly higher than in previous years,[30] indicating that a growing number of mobile money providers are tracking gender data. Among survey respondents who reported the percentage of female customers, the median value reached 37% in June 2015, with no significant change compared to previous years (39% in 2014 and 37% in 2013).

- **Rural customers**[31] – 40.2% of survey respondents reported the urban/rural split of their customer base and this is also higher than in previous years.[32] Among survey respondents who reported the percentage of rural customers, the median value reached 47.3% in June 2015, which is lower than what was reported in 2014 (53%), and similar to the reported value in 2013 (47%).

EXTENDING REACH: DATA FROM THE 2015 GLOBAL ADOPTION SURVEY

FEMALE CUSTOMERS



39.2% TRACK CUSTOMER GENDER



37% CUSTOMERS ARE FEMALE

RURAL CUSTOMERS



40.2% TRACK CUSTOMER URBAN / RURAL SPLIT



47.3% CUSTOMERS LIVE IN RURAL AREAS

30. In 2014, 23% of survey respondents reported this information.
31. Usually defined by survey respondents as customers who have opened an account at an outlet located outside of the main cities of the country. Refer to footnote 17 for further information on definitions of rural.
32. In 2014, 24% of survey respondents reported this information.

TEXT BOX 5

Ensuring Policies and Regulations Benefit Women

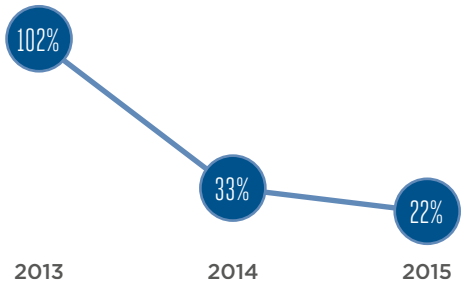
Widespread lack of official identification documents (ID) tends to disproportionately affect women and girls in emerging markets. Missing birth registration certificates, often needed to obtain an ID, hamper numerous daily activities and means that women are missing out on education opportunities, health care, entitlement claims, and access to financial tools, among others.[33] When it comes to mobile money, the lack of IDs necessary to open a mobile money account is generally recognised as a major barrier to increase the penetration of mobile money services among women. Indeed, women are significantly less likely than men to have national ID cards and the necessary documentation required to meet the traditional KYC requirements. Tiered KYC therefore represents a strong opportunity to increase the adoption of mobile money services among women.

This text box is based on a CGAP blog post by Mayada El-Zoghbi, "False neutrality: Ensuring policies and regulations fit women", available at http://www.cgap.org/blog/false-neutrality-ensuring-policies-and-regulations-benefit-women

Over-the-counter and unregistered users: High numbers but slower growth

At least 37.4 million unregistered customers performed an over-the-counter (OTC) mobile money transaction in June 2015. This figure, although high, represents a deceleration in the growth of OTC customers. The annualised growth rate for the number of unregistered mobile money users who transacted OTC was 22% in 2015, compared to 33% in 2014 and 102% in 2013. However, the total number of mobile money OTC customers may actually be much higher, as these figures only account for formal OTC usage that mobile money providers can track.

Change in OTC growth rates from 2013 to 2015



To date, 29 service providers reported that most of their transactions were OTC in June 2015. The majority of the services (45%) are based in South Asia and 28% are based in Sub-Saharan Africa. OTC represents 14.4% of the total global value of transactions and person-to-person (P2P) transfers remain the predominant use case. Bill payments also remain a common OTC use case, and 57.5% of all bill payments by value were conducted via OTC in June 2015.

33. Source: World Economic Forum, "Why official identification can help close the gender gap," (2015). Available at: https://agenda.weforum.org/2015/12/why-official-identification-can-help-close-the-gender-gap/

DEFINING OTC

A transaction is considered OTC when it is conducted through an agent's account on behalf of the customer. OTC can develop in two ways:

FORMAL OTC

Occurs when the provider deliberately chooses to offer and track OTC services, such as Easypaisa in Pakistan and Zoona in Zambia.

INFORMAL OTC

Can develop organically, often despite deliberate commercial and regulatory attempts to limit it (such as bKash in Bangladesh, which is struggling to limit the market's reliance on OTC transaction). Direct deposits are a subset of informal OTC transaction, and refer to a money transfer that is conducted by cashing-in directly to the account of the recipient, circumventing the intended flow of a P2P transfer. This is the type of OTC transaction that many mobile money deployments around the globe have experienced.

Each type of OTC behaviour is associated with a different set of root causes and risk profiles, and will require very different strategies to achieve wallet adoption.

This definition is based on a GSMA blog post by Mireya Almazán and Lynn Eisenhart published on January 22, 2015, "OTC & mobile money: Making sense of the data."

OTC: Lagging relative to account adoption

While OTC continues to be a significant part of mobile money, the growth rate is slower, relative to the growth of account adoption. In South Asia, home to especially high OTC usage, the 19% growth (year-on-year) of OTC is dwarfed by the 46.6% growth in registered accounts. This is a promising sign, suggesting that the increased focus of providers to migrate OTC customers to use wallets is bearing fruit. In Pakistan for example, both regulatory and commercial developments have helped to accelerate account adoption. On the regulatory side, biometric SIM registration has been considered an enabler for increased branchless banking account adoption by allowing for an easier remote registration process.[34] Biometric KYC is not a silver bullet and as such, from a commercial perspective, providers have also made significant investments in ecosystem and interoperability initiatives to make the branchless banking account more compelling to consumers.[35]

34. Lara Gidvani (2015), "The promise of biometric KYC and remote account opening for branchless banking in Pakistan". Source: http://www.gsma.com/mobilefordevelopment/programme/mobile-money/the-promise-of-biometric-kyc-and-remote-account-opening-for-branchless-banking-in-pakistan/
35. Barbara Arese Lucini and Sophia Hasnain (2015), "Building digital societies in Asia: Making commerce smarter". Source: https://gsmaintelligence.com/research/2015/11/building-digital-societies-in-asia-making-commerce-smarter/531/

Until now, the rapid growth of formal OTC transactions had seemed a powerful hook to introduce customers to a new kind of transactional service. However, there is growing evidence that OTC transactions can be an enabler for mobile money accounts in some circumstances, as in the example of Pakistan above. Moreover, according to InterMedia's Financial Inclusion Insights data, similar evidence shows OTC as an entry point for accounts in Bangladesh, where 56% of all bKash account users reported making a transaction before signing up for an account. This evidence, coupled with the deceleration of OTC growth, is an exciting development and suggests there is now greater emphasis on account adoption. This migration trend is significant because accounts, more than OTC transactions, enable the development of an ecosystem and greater financial inclusion.

TEXT BOX 6

OTC, smartphones, and the future of mobile money

In an increasingly smartphone-based world, services used primarily over-the-counter (OTC)—whether or not the provider is deliberately promoting it—may run up against an increasingly challenging dynamic. Today, OTC is appealing to some providers because it is easier to implement than accounts, and it is certainly easier to explain. However, as the industry develops, mobile money providers offering OTC are at an especially high risk of getting squeezed out of the value chain.

OTC-based services, by definition, rely heavily on the agent network for transaction volumes. Any transaction that relies on an agent is inherently inefficient, costing both time and money for customer and provider, and disproportionately benefiting the agent network. In Pakistan, for example, this dynamic has contributed to a commission war. As OTC customers have no strong preference for a particular service, agents conduct the transaction with the provider that pays the highest commission. Unlike other competitive markets where price promotions are a relatively common strategy to on-board customers, providers in Pakistan are locked into a battle where the "agent is king."

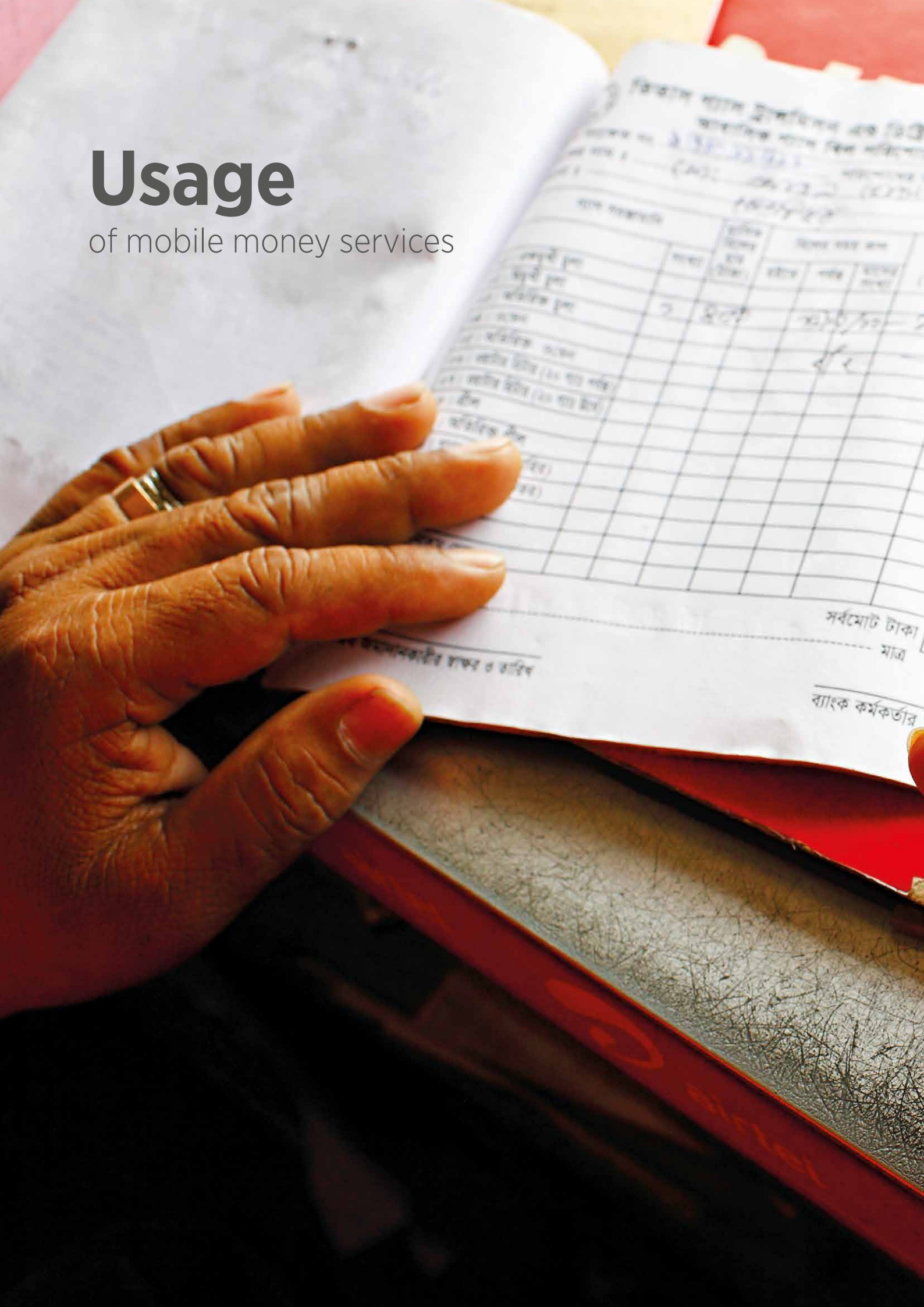
Without the stickiness of accounts, OTC providers remain vulnerable to the threat of new entrants offering app-based services that either build or partner with distribution networks. India is a compelling example of this: a number of local internet players supported by significant venture capital, including Paytm and Oxigen, have applied for a payments bank licence to have the option to offer accounts. On 19 August 2015, India's central bank announced five MNOs, as well as Paytm, among the eleven entities granted, in principle, a payment bank licence.

So what does this all mean? It would be too simplistic to suggest OTC-based services do not have a role to play in the future of mobile money. OTC's simple customer experience make it valuable, particularly for reaching poor, illiterate users at the periphery. However, without developing an ecosystem-based, account-based model, pure OTC mobile money services will risk forgoing the profitability potential of mobile money. OTC providers have achieved mass awareness and uptake in many markets. The next question is: will these OTC players adapt to the changing landscape, or leave the door open for someone else to do it?

This text box is based on a blog post which was the fourth in a series on global OTC exploration published by the Bill & Melinda Gates Foundation and GSMA. The original post was written by Lara Gilman, with contributions from Mireya Almazán from the GSMA. Available at http://www.gsma.com/mobilefordevelopment/programme/mobile-money/otc-smartphones-and-the-future-of-mobile-money/

Usage

of mobile money services





Key findings

In 2015, the mobile money industry experienced consistent growth both in terms of total volume (27.3%) and total value (31.5%).

This translates to just over a billion transactions in December 2015, or over 32.3 million transactions a day on average, which is more than double the amount PayPal processed, globally.

Customers are using mobile money services more. Active mobile money customers conduct an average of 11.2 transactions per month, which is an increase from 2014.

Cross-border mobile money remittances grew more than any other ecosystem product in terms of number of launches and volume of transactions. Providers offering cross-border mobile money remittances saw a 51.8% growth in volumes.

Growing usage suggests increasing trust in service...

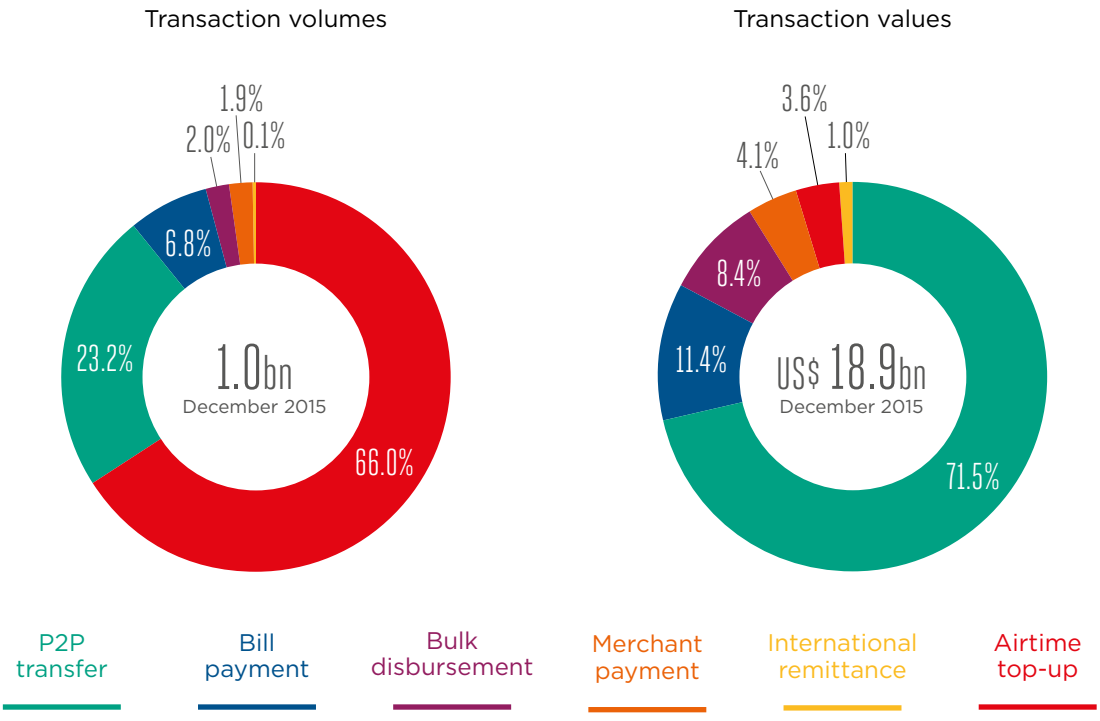
Usage trends provide the best insight into the industry's evolution to a payments ecosystem built on mobile money. This is visible from the perspective of both the average customer and at the aggregated global industry level.

In the last 12 months, customers have been using mobile money more. While the overall growth in volumes is 27.3%, the average number of transactions per customer has also increased. In 2015, the average customer conducted 11.2 transactions per month (up from 10.3 in 2014).

The scale of mobile money is even more substantial. In 2015, the mobile money industry processed more than 12 billion transactions, which is more than double the number of payments that PayPal processed globally in 2015.[36] Mobile money is also growing significantly faster than more traditional payment players. For example, the aggregate growth by value was 31.5% while MasterCard reported 14% growth.[37] This growth and scale are positive signals for the industry because it demonstrates a higher level of customer trust and mobile money's capacity to digitise a growing amount of capital.

FIGURE 9

Global product mix by volume and value (December 2015)



36. Source: https://www.paypal.com/us/webapps/mpp/about
37. Source: https://www.mastercard.com/us/company/en/docs/092408MasterCardFAQ.pdf

...but the focus in 2016 must be on building the ecosystem

While customers are becoming more active and the size of the pie is growing, providers have yet to convince customers to actively diversify their usage patterns, so the industry remains dominated by person-to-person (P2P) transfers and airtime top-ups. These two use cases are the foundational use cases for mobile money: in December 2015, the value of P2P transfers represents 71.5% of the total mix, and airtime top-ups represent 66% of the total volume of transactions (but only 3.6% of the value). These two use cases grew in volume by 27% and 24%, respectively.

Although the industry remains defined by these two use cases, building the mobile money ecosystem is becoming an increasingly important priority. An unprecedented number of providers have begun to invest in new partnership models and fresh approaches to diversify beyond P2P transfer volumes and values. This section focuses on use cases that deliver network effects, with particular focus on:

- Bulk disbursements
- Merchant payments
- Interoperability
- Cross-border mobile money remittances
- Transport payments

The insights from both the GSMA Global Adoption Survey and mobile money provider case studies reveal how these use cases have the potential to accelerate network effects and transform mobile money into a payments ecosystem.

FIGURE 10

A month in the life of the average active customer

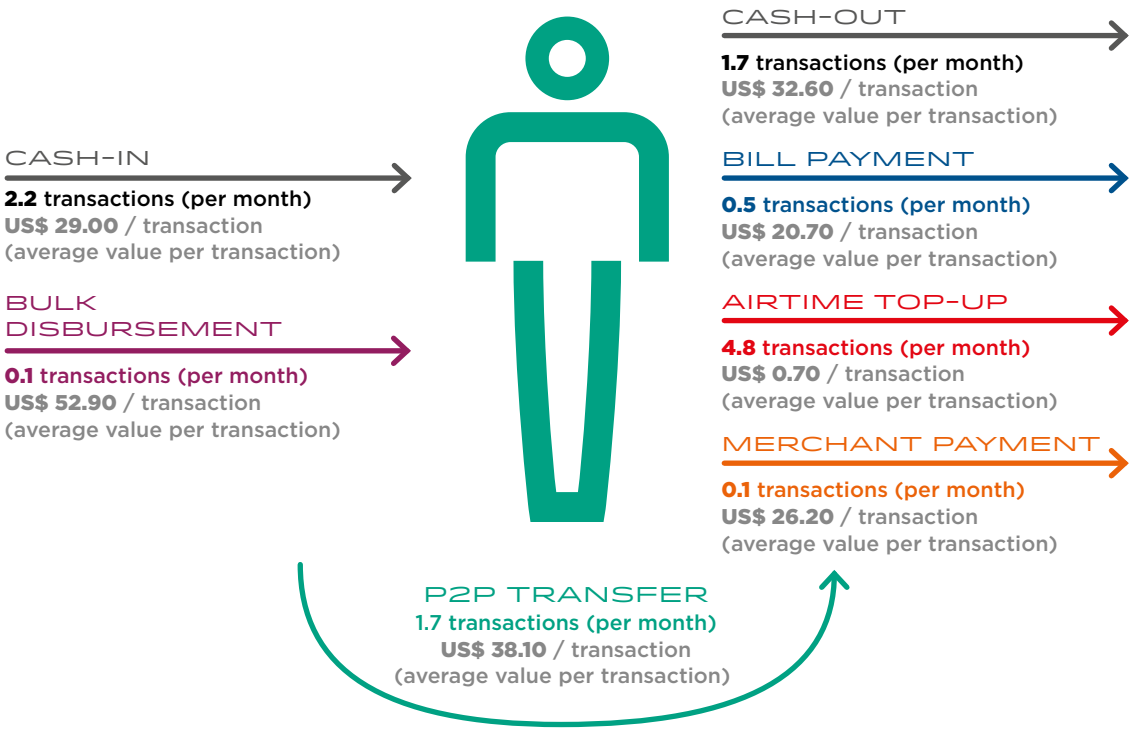
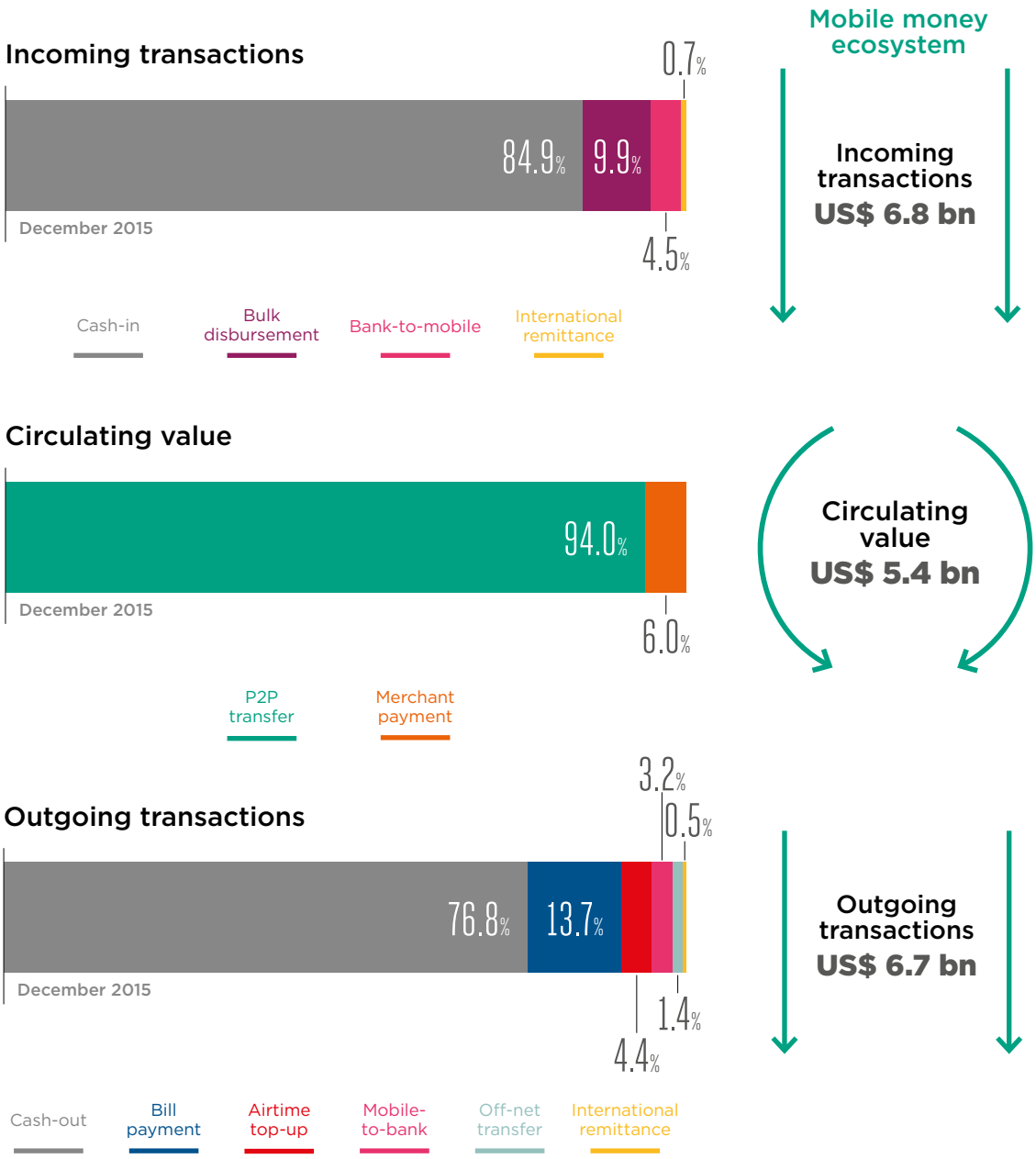


FIGURE 11

An overview of the mobile money ecosystem (December 2015)



Significant growth in bulk disbursements highlights an efficient way to digitise cash

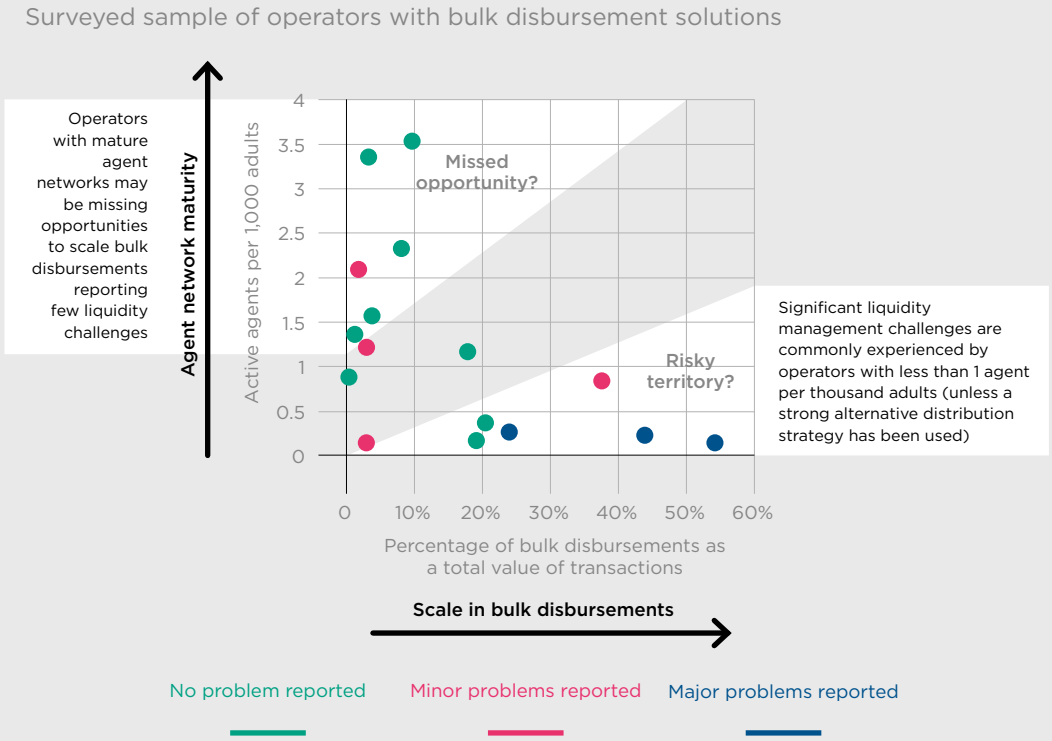
Bulk disbursements experienced one of the fastest growth rates in terms of value, increasing 48.4% in 2015 and translating into inflows worth US$ 670 million in December 2015. Government payments are leading the way: 64.7% of bulk disbursements were government-to-person (G2P), followed by business-to-person (B2P) at 32.1% and donor-to-person (D2P) at 3.2%.

Governments are playing an important role in digitising payments such as public sector salaries, pension and social benefit payments. The benefits of digitising government payments go beyond financial inclusion, and can benefit governments, banks and end users. A 2014 McKinsey study on G2P payments in Nigeria revealed that additional annual benefits could be worth US$ 600 to 800 million in taxes for the government, US$ 150 to 160 million in revenues for banks, and US$ 10 to 20 million in additional benefits for 20 million end user. G2P disbursements are most common in South Asia and Latin America & the Caribbean. The highest share of total G2P disbursement is from South Asia at 70.1% followed by Latin America & the Caribbean at 29.3%.

Although bulk disbursements are an efficient way for providers to inject money into the ecosystem, the vast majority of these are cashed out. Providers need to ensure that money continues to circulate more in the ecosystem if they are to grow their revenues, and they should continue to create a compelling value proposition for other more frequent transactional services, including merchant payments.

TEXT BOX 7

Bulk disbursements: Prerequisites for launch



Until now, mobile money deployments have focused primarily on the needs of consumers. However, there is a large untapped opportunity for mature mobile money deployments to develop payment solutions for businesses, governments, and NGOs that digitise their collections and disbursements. We estimate there could be a US$ 16 billion or more revenue opportunity for mobile operators in developing countries to digitise these payments. In doing so, they would enable a dynamic mobile money ecosystem and exciting new propositions for customers, securing their place in the financial lives of individuals and economies as a whole. Furthermore, digitising these payments is a logical path to profitability and scale—reducing dependency on a costly cash-in and cash-out network would enable more purely digital use cases.

The figure above explores the relationship between scale in bulk disbursements and agent network maturity. The graph shows that liquidity management problems are common amongst operators that have pushed scale in bulk disbursements without mature agent networks (less than one agent per 1,000 adults).

A strong mobile money foundation, including a robust agent network and an active level of customer education, is a key prerequisite for launching a successful bulk disbursement initiative. As part of a toolkit published in October 2015, the GSMA also identified investment, sales and solution capabilities, and collaborative initiatives to reach the market as prerequisites.

This text box is adapted from a blog post by Chris Williamson and Francesco Pasti (2015), "Launching a new toolkit: Digitising payments for businesses, governments and NGOs," available at: http://www.gsma.com/mobilefordevelopment/programme/mobile-money/launching-a-new-toolkit-digitising-payments-for-businesses-governments-and-ngos/

For a copy of the complete toolkit, email mobilemoney@gsma.com.

Merchant payments require industry collaboration and faster integration

With approximately twelve million transactions per month and more than US$ 325 million transacted, merchant payments represent 1.9% of total mobile money transaction volumes and 4.1% of total mobile money transaction values. In 2015, merchant payments grew 28.2% in value and 14.6% in volume. However, today, merchant payments represent significant value for a tiny minority of deployments. Four mobile money providers handle 79.6% of the total volume of merchant payments. These four providers also dominate overall market share in their GSM and mobile money markets.

Despite significant e-commerce potential, only

0.5%

of total merchant payment volumes were online.

This persistent trend[38] underscores the complexity of merchant payments and reinforces the rationale that industry collaboration could unlock the reach required to scale merchant payments (see text box 8). Furthermore, 2015 data shows little relation between the absolute number of merchant payments and merchant payments per active customer, indicating that even those deployments that have managed to drive high relative volumes of merchant payments have not been able to reach their entire customer base.

Merchant payments can be considered both in terms of proximity payments (i.e., in-store) as well as online through e-commerce. As e-commerce continues to grow globally, the intersection between mobile money and e-commerce is garnering more interest. While mobile money should be the key enabler for e-commerce in markets where it is well established, cash-on-delivery is the payment method of preference. Mobile money providers have reported only a handful of online payments, totalling 0.5% of total merchant payment volumes (which is less than 60,000 transactions). Mobile money providers in Sub-Saharan Africa and other emerging countries have a leading position because their mobile money accounts are already integrated in the phone. However, interviews with large e-commerce players reveal that ease of integration with mobile money providers is a major barrier to accepting mobile money as a primary payment mechanism. As e-commerce continues to grow, providers need to adapt quickly or face more competition from innovative players that could quickly disrupt cash-on-delivery. This is already happening in China and India with Alipay, WeChat, and Paytm.

38. The 2014 State of the Industry Report also highlighted this trend, where the top five merchant payment services accounted for 77.1% of all merchant payment transactions.

TEXT BOX 8

Merchant payments: Case studies from Pakistan and Ghana

In markets such as Pakistan and Ghana, new partnership models are emerging in an effort to scale merchant payments and accelerate the transition from cash to digital forms of payment. In Pakistan-where there are more than two million retail outlets, and 800,000 of which are FMCG channel outlets[39]-point of sale (POS) penetration is still low. Providers realised that to capture the merchant payment ecosystem in Pakistan, they would need to go beyond the traditional closed loop card-based model, and have recently launched a number of collaborative merchant payment initiatives:

- Telenor & Tameer Bank's mobile money service, Easypaisa, and Mobilink's Mobicash service have partnered with a third party, Wemsol—operating under brand name Keenu. Currently, Easypaisa is live and Mobicash will follow. Keenu continues to acquire merchants and to date includes several hundred merchants who offer a full-fledged POS/ mPOS machines which accept NFC and card payments (both swipe and chip). The cost of the device is covered completely by Keenu, while the Merchant Discount Rate (MDR) is shared between the operators and Keenu.

- Mobile operator Ufone (Upaisa) has launched a new mobile point-of-sale (mPOS), which can accept swipe and chip card payments, but not NFC. While Ufone's mPOS (called Ucashier) is currently closed loop, Ufone is actively working to launch an open-loop solution accepting all banking cards and NFC payments. The proposed open-loop solution will be launched with mPOS devices capable of reading swipe, chip and NFC cards. It also would allow merchants to control and monitor daily transactions through an online portal.

In Ghana, Ecobank Ghana and Kopo Kopo, a company focused on building merchant networks for mobile payments, have launched a new initiative called "PayWith", a service that enables merchants to accept mobile money payments at the point of sale by giving merchants a single account through which to accept mobile money payments. Currently, MTN is in pilot mode and the solution is open to other providers to join as well.

In this model, Kopo Kopo is the technology partner and will connect issuers to acquirers. Their role includes enabling SMEs to accept digital payments for their products, and to benefit from value-added services such as data analytics, business intelligence, and SMS marketing tools. Ecobank plays the typical role of acquirer, and will be responsible for prospecting, recruiting, on-boarding, and managing an active base of merchants, as well as providing merchants with other value-added services, such as access to credit at a later stage. Mobile money providers, the issuers, will provide channel access for their customers, communicate and drive awareness, interest, and usage at a merchant.

39. Source: http://www.brecorder.com/supplements/:36th-fpcci-export-awards-2011-2012/1269391:future-of-retailing-in-pakistan/

Bank and mobile money interoperability: Closing the gap between banked and unbanked

Bank and mobile money interoperability is increasingly important. For deployments with functionality already in place, bank-to-mobile (B2M) transactions represent 4.5% of the total value entering the ecosystem.

In 2015, 56% of Global Adoption Survey respondents reported that they are connected to banks and offering B2M and M2B (mobile-to-bank) capabilities. The number of banks connected to mobile money schemes increased by 66% between 2013 and 2015, growing to more than 520 banks in 2015 (for 120 deployments).

When looking at the relationship between downstream ecosystem transactions (such as bill payments and merchant payments) and B2M volumes, it appears that banked customers transferring money from bank accounts to mobile money accounts are using it primarily for cashing-out at agents. This indicates that customers are actually transferring money from bank accounts to mobile money accounts in order to proceed to a cash-out, and thus we can assume:

- Mobile money is performing an important and valued role in allowing banked mobile money customers access to their funds; and

- Banked mobile money customers are also sending money via P2P transfers to previously unbanked mobile money customers, closing the gap between these two worlds.

A2A interoperability: Insights from 2015

During 2015, the number of markets where mobile money customers can send and receive money from customers of other mobile money services increased to a total of seven markets. Apart from going live, significant momentum has built up in other markets that are now on the path to allowing customers to send P2P transactions across deployments, giving this group of interoperable markets truly global representation.

Although interoperability is still a relatively young aspect of the industry, a few trends and similarities have emerged:

- **Technical solutions and partners vary across markets.** Central banks, local bank-owned switches, card payments companies and the mobile money providers are all capable of driving interoperability. Both switches and bilateral solutions are being used, and a recent GSMA case study on lessons from Tanzania and Pakistan illustrates the benefits and drawbacks of each.[40] This in-depth review of inter-bank switches illustrates that the governance model, technical readiness, and commercial model of the existing inter-bank infrastructure needs to be addressed to become suitable for the mobile money industry.

40. Sophia Hasnain and Renata Bindo (2015), "Choosing a technical model for A2A interoperability: Lessons from Tanzania and Pakistan". Available at: http://www.gsma.com/mobilefordevelopment/programme/mobile-money/choosing-a-technical-model-for-a2a-interoperability-lessons-from-tanzania-and-pakistan/

- **Commercial models also vary across markets.** Theory tells us that to generate the greatest uptake and make it relevant for low-income segments, customer transaction fees need to remain as low as possible, ideally the same as for on-net transactions. One commercial model that has emerged is where operators compensate each other for e-money entering their system (similar to how they would compensate agents with an agent commission for a customer cash-in). This creates commercial incentives to keep money digital and circulating across platforms. This industry trend is represented in Tanzania and Rwanda. Other markets follow the commercial model of the existing inter-bank infrastructure, or have no inter-party compensation at all.

- **Customer transactions need to be real-time.** Any solution for interoperability will need to offer this feature to mobile money users and all implementations to date have followed this rule.

Interoperability remains in its early stages and, therefore, the long-term positive benefits of interoperability are yet to be seen. The market that has seen the greatest benefit from A2A interoperability among mobile money providers is Tanzania, proving that market maturity and strong partners are key to reaping the benefits of interoperability.

Revolutionising cross-border remittances with mobile money

For mobile money services offering International Money Transfer (IMT), the rate of growth of cross-border remittances 51.8% was the highest, by volume in 2015. As both the sending and the receiving channel, mobile money enables greater reach, lowers transaction costs, and encourages regional trade and economic growth. As the number of services have increased, the median cost of sending 100 USD via mobile money has reduced by half. In 2014, the median cost was US$ 4.00 and in 2015, this has reduced to US$ 2.00. While we expect this number to fluctuate as more services and corridors open, mobile money will continue to apply a downward pressure on the cost of sending money globally.

In Africa alone, the opportunity is compelling: 120 million Africans receive international remittances worth US$ 60 billion, and of all the world's regions, migration is primarily intraregional.[41] Despite this, the 10 most expensive remittance corridors are all intra-African. Africans pay the highest transaction fees in the world: 12.4% versus a global average of 8.6%. A 5% reduction in fees could pass on an additional US$ 4 billion to Africans. These high costs have contributed to a rise in informal cross-border remittances (via transport companies and Hawala systems).[42]

Given the opportunity for mobile money to meet this demand, it is not surprising that a growing number of providers are actively investing in cross-border remittance services. However, complex regulations and risk management are even more challenging to negotiate in a cross-border context. Customer due diligence, account limits, exchange rate exposure, and additional licensing costs all affect a provider's capacity to effectively offer this product. However, as the industry becomes more adept at navigating this added complexity, cross-border mobile money services will play an increasingly significant role both in financial inclusion and in the development of the mobile money ecosystem.

41. Source: http://www.ifad.org/remittances/maps/africa.htm
42. Source: http://www.gsma.com/mobilefordevelopment/programme/mobile-money/new-publication-on-cross-border-mobile-money-remittance-models-in-west-africa/

Looking ahead: Transport as an emerging use case to build the ecosystem

In the past year, mobile money services have begun to look at new ecosystem use cases to drive customer activity. Transport payments are one transaction type with the potential to drive daily usage, but it presents unique constraints. Although part of the payments ecosystem, transport could be considered adjacent to the core mobile money business as it is often an online or offline service independent of mobile money, but which has the capacity to link to a core mobile money account. In 2015, mobile money providers tested transport as a means to build an ecosystem, both with and without a direct connection to a mobile money account. The Philippines and Nicaragua both illustrate how transport can become a means to build a more digital ecosystem.

In the Philippines, AF Payments Incorporated (AFPI) was launched in 2014 as a joint-venture between the two leading mobile operators, Globe and Smart and their relative owning groups, the Ayala Group and First Pacific Group,[43] to deliver a unified contactless Automated Fare Collection System (AFCS) for the rail system in Manila.

To facilitate this, AFPI created beep™, an offline stored value card which will be initially used for transport fee payments on Manila's Rail System. The NFC card storing the wallet is being issued by beep™, with Globe and Smart releasing their own beep™-powered cards. While the standard beep™ cards require no KYC process and are easily accessible to everyone, users that have a beep™ card released by Globe or Smart will soon have the option to top-up from a mobile money account. Following the rail system roll-out, customers will be able to use the card at a number of B2C business establishments around the metro lines by the middle of 2016. While the scope of the joint-venture between the Globe and Smart is the issuing and branding of cards and merchant acquisition, beep™ also has a strong social impact as it is estimated that approximately 70% of the 1.5 million daily travellers using the systems are unbanked and 50% of the travellers having a bank account, only have access to debit cards.

A similar initiative was launched in Nicaragua in 2013. MPeso, a non-MNO led mobile money deployment, has developed TUC, a contactless NFC card that allows people to pay for bus journeys in the capital city of Managua. The TUC card is directly connected to MPeso's mobile money account and, while customers can also pay in cash on some bus journeys, its uptake has been very strong with over 90% bus rides paid with the card. This has translated in over 800,000 transactions processed per day. Furthermore, the integration with transport payments has driven high customer activity rates for MPeso (aside from transport payments), demonstrating the potential impact transport can have. Since the introduction of TUC, 70% of MPeso's registered customer base is active on a 90-day basis and 60% is active on a 30-day basis.

Transport, as an adjacent use case, could help encourage the everyday use of mobile money accounts. For providers that cannot rely on the core P2P business to drive the network effects required for mobile money, adjacent use cases are becoming more compelling. Transport, e-commerce, and credit will be increasingly relevant for mobile money adoption in markets where traditional financial services are more established and operators face stronger competition.

43. The Ayala Group is composed of BPI-20%, Globe-20% and Ayala Infra-10% forming the Ayala Group's 50% share. First Pacific Group, on the other hand, is composed of Metro Pacific Investments Corp-20%, Smart-20% and Meralco Finance-10% forming FPG's 50% share.



Mobile money revenues and investment



Key findings

The majority of mobile money providers recognise the need to continue investing in the service long term. Three-quarters of respondents maintained or increased their investment in mobile money in 2015 over the previous year.

The evolution of the business model in mobile money is becoming increasingly critical against the broader landscape of payments and fintech, where investments have tripled and reached US$ 12.21 billion in 2014.

Revenues generated by mobile money grew by 40.3% (CAGR) in the year leading up to June 2015. Moreover, a greater proportion of MNO respondents report that mobile money is a significant revenue contributor to their overall business, as compared to 2014. In 2015, more than 70% of MNO-led mobile money services reported earning more than 1% of total revenues from mobile money, compared to 50% the previous year.

The majority of respondents (76.5%) still derive most of their revenues from customer fees. However, this is less pronounced in Latin America and Asia, where a greater proportion of respondents report obtaining the majority of revenues from business fees.

Agent commissions continue to represent the biggest cost category for providers. In 2015, the top 10 mobile money providers (ranked by 90-day active accounts) paid out on average 54.4% of revenues as agent commissions.

Direct revenues, indirect benefits, and the evolution of investments

As mobile money providers grow their active customer base and product offering, their ability to generate direct revenues from transactions also grows. Additionally, interoperability and integration with third parties can expand the mobile financial ecosystem and increase the value proposition of the service. In a mature ecosystem, a greater proportion of funds can enter the system digitally and circulate digitally, enhancing prospects for revenue generation while compressing costs. Thus, aggressive investments in mobile money foundations and subsequent ecosystem development can accelerate the path to profitability.[44]

The evolution of the business model in mobile money is becoming increasingly critical against the broader landscape of payments and fintech. Although fintech represents a much larger pool of products and services beyond mobile money, the growth in fintech investments will have an impact – particularly on the competitive landscape. Globally, fintech investments have tripled in the last year from US$ 4.05 billion in 2013 to US$ 12.21 billion in 2014.[45] Although the vast majority of this is focused on developed markets for banked consumers, there is increasing interest in global markets. The volumes of these investments demonstrate that the landscape of who and where mobile money could be offered is changing.

In this section, insights on mobile money revenues and investments is based on self-reported data by 85 respondents to the GSMA's 2015 Global Adoption Survey. This section analyses direct revenues generated by mobile money, indirect benefits from airtime distribution, and the evolution of mobile money investment levels, particularly with regards to agent commissions.[46]

Direct revenues growing steadily

Mobile money is continuing to show strength in terms of direct revenue contributions for mobile money providers. At least 15 providers report earning revenues of more than US$ 1 million during the month of June 2015, compared to 11 providers in June 2014. All 15 deployments have been in operation for more than 18 months, and 12 of the 15 have over one million active 90-day customers. Notably, all but three of these providers are MNOs. Mobile network operators are thus continuing to bring their reach, distribution and sustained investment to the mobile financial services industry.

Revenues generated by mobile money grew by 40.3% (CAGR) in the year leading up to June 2015, comparable to the annualised growth rate of mobile money transaction values over the same period. Twelve respondents more than doubled their revenues between September 2014 and June 2015. More than half (58.3%) of these deployments were in West and Middle Africa, where mobile money adoption and usage is rapidly gaining traction.

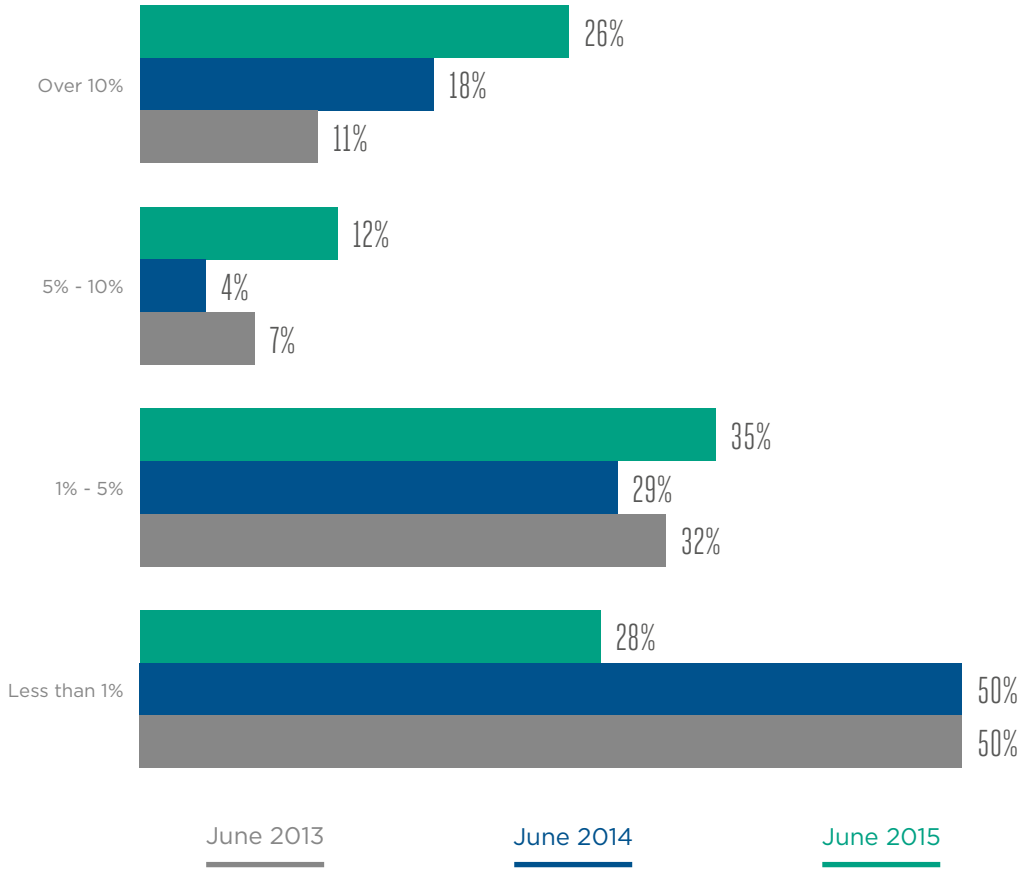
44. Mireya Almazán and Nicolas Vonthron (2014), "Mobile money profitability: A digital ecosystem to drive healthy margins", GSMA Mobile Money for the Unbanked. Source: http://www.gsma.com/mobilefordevelopment/programme/mobile-money/mobile-money-profitability-a-digital-ecosystem-to-drive-healthy-margins/
45. Source: http://www.fintechinnovationlabnyc.com/media/830595/FinTech-New-York-Partnerships-Platforms-Open-Innovation.pdf
46. This sub-section is based on information provided by survey respondents, in addition to public information made available by large mobile money providers including MTN, Safaricom, Vodacom, Millicom, and others.

Taking a closer look at the 43 mobile network operators that provided revenue data, there is evidence that mobile money is growing steadily as a percentage of total company revenues. A greater proportion of MNO-led deployments report that mobile money is a significant revenue contributor to their overall business, as compared to 2014. In 2015, 72.1% (31 of 43) of MNO-led respondents reported earning more than 1% of total revenues from mobile money. The proportion of respondents earning less than 1% of total revenues from mobile money has dropped significantly since 2013 (from 50% in 2013 and 2014 to 28% in 2015). Encouragingly, 25.6% of the MNO-led (11 of 43) deployments reported earning more than 10% of total revenues from mobile money.

As a comparison, telco VAS (value-added services) offerings, such as ringtones and news or weather content, typically contribute between 2% and 5%, and sometimes up to 8%, of total company revenues.[47] Thus, mobile money is becoming more significant than VAS offerings to a growing number of MNOs.

FIGURE 12

Percentage of revenues generated by mobile money for MNOS (2013 - 2015)



NOTE: PERCENTAGES ARE BASED ON RESPONDENTS TO THE ANNUAL GLOBAL ADOPTION SURVEYS IN 2013 TO 2015. WHILE THERE IS SOME VARIATION IN RESPONDENTS YEAR-ON-YEAR, THE FINDINGS REMAIN COMPARABLE.

47. Recurring (service) revenue generated from value-added services (VAS) in the period, expressed as a percentage of recurring (service) revenue, GSMA Intelligence data, Q3 2013 – Q2 2014.

Increasingly, mobile network operators are disclosing the revenue contributions from mobile money in their public financial reports. Data from these reports confirm the overall positive financial trends revealed by our survey respondents:

- M-PESA in Kenya now contributes 20% of Safaricom's revenues, up from 19.6% in September 2014. M-PESA revenues grew by 22.8% to US$ 320 million. This growth was driven by a 14% increase in 30-day active M-PESA customers to 13.9 million, as well as an increase in the average number of transactions per customer.[48]

- Millicom Group reports that total revenue from mobile financial services across nine markets in Sub-Saharan Africa and Latin America & the Caribbean increased by 23.1% between Q3 2014 and Q3 2015. MFS revenue in Tanzania was up 30.4% and Paraguay up 6.9%.[49] In Africa, MFS contributed 9% of total company revenues in Q3 2015.

Nevertheless, there are cases where total revenues from mobile money decreased over the last year. Difficult macroeconomic conditions and currency devaluations in many emerging markets have negatively affected financial statements across multiple business units.[50] Eleven mobile money providers in our sample report a decline in USD revenue in June 2015 compared to September 2014. This group of providers is highly diverse in terms of geography, length of operations, and business models.

Sources of direct revenue

The majority of respondents (76.5%) still derive most of their revenue from customer fees. However, this is less pronounced in Latin America & the Caribbean and Asia, where a greater proportion of respondents report obtaining the majority of revenues from business fees. 12 out of 85 providers (14.1%) report most of their revenues comes from business fees. Six of these are in South Asia, four in Latin America & the Caribbean, and two in East Asia & Pacific. Only one deployment reports getting most of its revenue from government fees.

Regional variations in revenue sources can be partially explained by differences in how mobile money is used across regions. As discussed in the chapter on usage, the product mix by volume and value in Latin America & the Caribbean and Asia demonstrates a relatively larger percentage of ecosystem transactions involving third parties: bill payments, merchant payments, bulk disbursements, and international remittances. As mobile money services continue to mature, sources of revenues will further diversify and institutional users of mobile money will provide a growing revenue stream.

Additional considerations for revenue generation include commercial decisions on pricing models, as well as regulatory provisions relating to pricing and float income.

Mobile money pricing models can vary greatly across deployments and time horizons. For example, some deployments may choose to offer mobile money services for free to consumers, such as Telesom's ZAAD in Somaliland, WePay in South Africa, and Davivienda's DaviPlata in Colombia. In

48. Source: http://www.safaricom.co.ke/images/Downloads/Resources_Downloads/annual_report_2015.pdf
49. Source: http://www.millicom.com/media/3817995/q3-2015-results-presentation.pdf
50. Foreign exchange variations between Q3 2014 and Q3 2015 are significant: 18.6-25.7% decrease in Chad, Ghana, Senegal and Tanzania, and a 51.6% decrease in Colombia. As reported by Millicom Q3 2015 Results.

the case of DaviPlata, a service offered by a financial institution, a freemium model was adopted. Providers may follow a freemium model in order to capture value from those customers who transact more or use premium services—including more commercial, institutional, and bulk payment users—while allowing everyday small-value transacting users, both commercial and personal, to transact for free below a certain daily limit.

Regulation also influences the revenue generation potential of mobile money services. In particular, regulatory provisions on float income, or revenue earned on outstanding e-money liabilities, can affect the overall business case for mobile money. Regulation often restricts how revenues from float can be utilised, which means its net impact on overall profitability can vary greatly across markets.

TEXT BOX 9

Regulatory approaches to generating revenue from float or trust account

When it comes to generating revenue from the float or trust account, there are a number of regulatory approaches that fall along a spectrum from most to least restrictive:

1. Interest earned on the float may only be used for public charitable purposes: e.g., Kenya, where the interest earned on trust funds is spent by the trustee on charitable activities.

2. Interest earned on the float may only be used in a manner that directly benefits mobile money customers: e.g., Liberia, where the Central Bank must approve the provider's proposal for how to use the funds to directly benefit customers.

3. Interest earned on the float may only be used in a manner that indirectly benefits customers: e.g., Lesotho requires funds to be used on public awareness campaigns and financial literacy programmes that may be decided on by the mobile money provider.

4. Most of the interest earned on the float must be passed on to customers: e.g., Ghana requires providers to pass on 80% of interest (net of administrative fees related to the trust accounts).

5. Interest earned on the float may not be passed on to customers: e.g., Afghanistan and Namibia, where providers are prohibited from paying interest to customers, but may keep any interest for themselves.

6. Interest earned on the float may be used as mobile money providers see fit: e.g., India, where payments banks can earn interest on government securities and funds stored in banks, but they are not required to pay it out to consumers.

Indirect revenues

For mobile network operators, the indirect benefits of mobile money—churn reduction, uplifts in average revenue per user on the GSM business, or savings on airtime distribution—can be significant and help to strengthen the overall business case for mobile money services.

US$ 64M

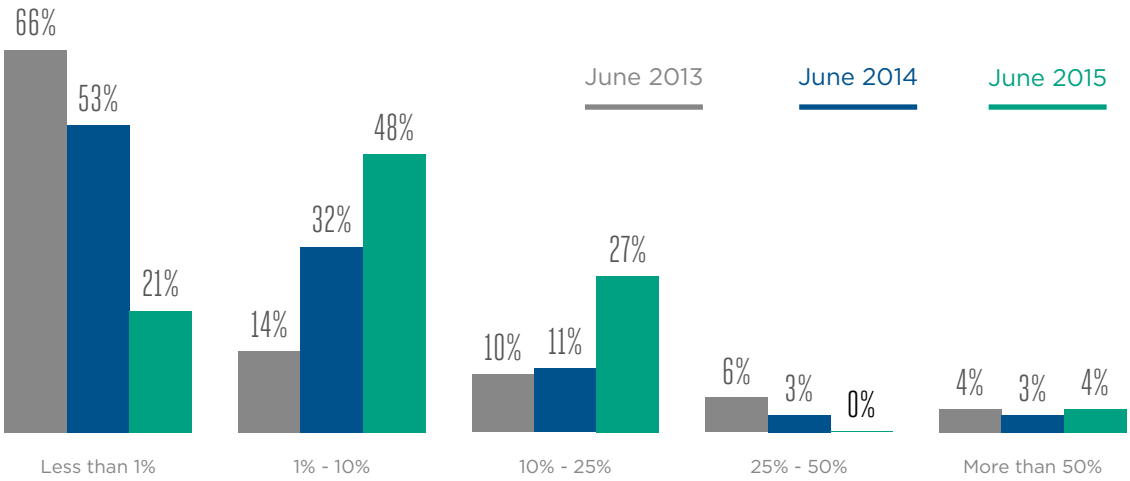
By selling 38% of its total airtime through M-PESA in FY2014, Safaricom reduced its traditional airtime distributor commission outgoings by an estimated US$ 64 million.

Forty-eight MNOs in our sample disclosed the percentage of total airtime sold through mobile money. The majority (79%) reported selling more than 1% of airtime through mobile money, and 31% of respondents reported selling more than 10% of their airtime through mobile money. By contrast, the majority of MNO respondents in 2014 sold less than 1% of their total airtime via their mobile money services (see figure 13).

Selling airtime via mobile money can result in large cost savings for mobile network operators, since they can avoid commissions to traditional airtime distributors. In its 2015 annual report, Safaricom Kenya reported selling 38% of total airtime via M-PESA.[51] For the remaining 62% of its airtime sales, Safaricom spent just over US$ 100 million in commissions paid to airtime distributors. Without M-PESA, we estimate Safaricom's total bill to traditional airtime distributors would have been nearly US$ 64 million higher in FY2014.[52,53,54] These figures provide an indication of the scale of potential cost savings from shifting to mobile money channels for airtime distribution, notwithstanding the significant operational expenditures associated with mobile money.

FIGURE 13

Percentage of total airtime sold via mobile money (2013 – 2015)



NOTE: PERCENTAGES ARE BASED ON RESPONDENTS TO THE ANNUAL GLOBAL ADOPTION SURVEYS IN 2013 TO 2015. WHILE THERE IS SOME VARIATION IN RESPONDENTS YEAR-ON-YEAR, THE FINDINGS REMAIN COMPARABLE.

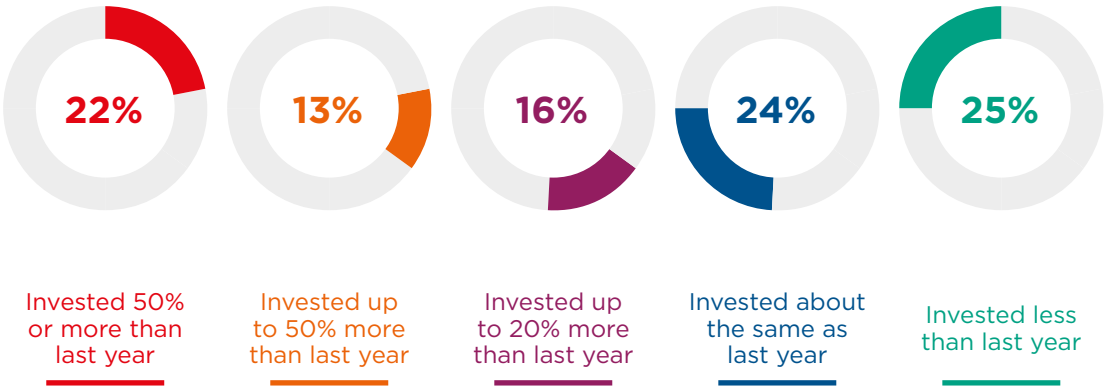
51. Source: http://www.safaricom.co.ke/images/Downloads/Resources_Downloads/annual_report_2015.pdf
52. The global average ratio of cash-ins to transactions is 1:4, 2.5 out of 4 of these transactions are airtime top-ups, on average.
53. 10,627,538,000 KSH (USD 103.8 million) of airtime seller commissions were paid in total by Safaricom in 2015 (assuming that Safaricom only pays airtime seller commission on the 62% of airtime it did not sell via M-PESA). We estimate that each percentage of airtime sold costs Safaricom 171,411,903 KSH (USD 1.7 million).
54. Total cost savings to Safaricom would need to adjust for associated agent commissions for cash-in, as well as general operational expenditures involved with the mobile money business.

Investments in mobile money

Most mobile money providers recognise the need to continue investing in the service long term. Three-quarters of respondents maintained or increased their investment in mobile money in 2015 over the previous year.

FIGURE 14

Providers investment in mobile money in 2015



Investment in mobile money tends be driven by operational expenditures, including agent commission costs, marketing, and personnel expenditures.[55] Agent commissions in particular represent a large cost category for providers. Mobile money providers compensate their agents for each cash-in, cash-out, and customer registration. In 2015, the top 10 mobile money providers (ranked by 90-day active accounts) paid out on average 54.4% of revenues as agent commissions. While agent commissions should decline as a percentage of revenue as mobile money matures, agents continue to play a critical role in enabling mobile money transactions.

Beyond agent commissions, the GSMA estimates that MNOs should expect to invest six to eight times the revenue units generated by mobile money in the start-up phase. If the deployment is successful at acquiring at least 15% of its GSM base as active mobile money customers, modest positive margins can be expected. Only a mature, ecosystem-based deployment can expect healthy profit margins of more than 20%, making mobile money attractive relative to an MNO's core GSM business.[56]

While the business model looks different across institution types and commercial models for mobile money, it is equally necessary to sustain healthy investment levels. Mobile money is not an easy proposition, regardless of provider type. Nevertheless, the industry as a whole is demonstrating that the prospects for profitability are improving. Revenues continue to grow, and most providers remain committed to investing in this sector.

55. Mireya Almazán and Nicolas Vonthron (2014), "Mobile money profitability: A digital ecosystem to drive healthy margins", GSMA Mobile Money for the Unbanked. Available at: http://www.gsma.com/mobilefordevelopment/programme/mobile-money/mobile-money-profitability-a-digital-ecosystem-to-drive-healthy-margins/

56. Ibid.

Appendix A – Background on the report

About the GSMA's State of the Industry Report on Mobile Financial Services

Each year, the GSMA's Mobile Money programme publishes a State of the Industry Report on Mobile Financial Services, enabling readers to track the development of the MFS industry over time.

This report is designed to provide MFS practitioners with insights into the important developments taking place in mobile money, mobile insurance, mobile savings, and mobile credit (see table A, page 62 for definitions). It is also designed to provide other stakeholders, such as regulators, senior executives in the telecom and banking sectors, and international development agencies, with an authoritative overview of the industry and its impact on the financial lives of unbanked and underserved users.

Now established in the majority of emerging economies, mobile money is a maturing industry serving new business areas and enabling a wider range of digital payments. Mobile money has become a core product offering for many mobile network operators (MNOs), who have unique assets and incentives to deliver these services in a sustainable and scalable way, namely trusted brands, widespread distribution, and secure channel access.

Methodology

This report provides a quantitative assessment of the state of the mobile financial services industry based on GSMA data from the Mobile Money Deployment Tracker, the 2015 Global Adoption Survey of Mobile Financial Services, and Mobile Money Estimates & Forecasts.

The report also uses qualitative insights on the performance of mobile financial services based on the GSMA Mobile Money programme's engagement with the industry over the past year.

GSMA Mobile Money Deployment Tracker

The GSMA Mobile Money Deployment Tracker is an online database that monitors the number of live and planned mobile money services for the unbanked across the globe. It also contains information about each live deployment, such as the name of the provider and the name of the mobile money service, its launch date, what financial products are offered, and which partners are involved in delivering each service. In 2014, the GSMA Mobile Money Deployment Tracker was extended to include information on mobile insurance, mobile credit, and mobile savings services.

GSMA Global Adoption Survey of Mobile Financial Services

The GSMA Global Adoption Survey of Mobile Financial Services is an annual survey designed to capture quantitative information about the performance of mobile financial services around the world. All of the service providers represented in the GSMA Mobile Money Deployment Tracker were invited to participate in the 2015 survey. Respondents supplied standardised operational metrics about their services for the months of September 2014, December 2014, March 2015, and June 2015, on a confidential basis.

A total of 107 service providers from 67 countries participated in the 2015 survey, and an additional 48 on mobile insurance, and 17 on mobile credit and savings. The full list of survey participants is included in Appendix A.

GSMA Mobile Money Estimates & Forecasts

For some metrics, GSMA Mobile Money uses data modelling to estimate and forecast these figures, making information available for the entire industry rather than only survey participants. The methodology used to model these metrics is based on a mix of bottom-up (service level) and top-down (country level) approaches. A number of data sources, including the Global Adoption Survey of Mobile Financial Services, the GSMA Mobile Money Deployment Tracker, central bank reports, and the International Monetary Fund's (IMF) annual Financial Access Survey (FAS), are used in the estimates and forecasts models.

Estimates and forecasts for mobile money metrics are developed at the service level and the numbers are then aggregated at the country and regional level. For mobile money services with historical data available, growth until December 2015 is developed based on this data, trend analysis, and analyst judgement. For mobile money services that do not have historical data available, performance on each metric is developed based on country and regional benchmarks, GSMA's internal market expertise, as well as tailored assumptions about the service's future growth.

These estimates and forecasts will be updated on a regular basis to reflect the evolution of the industry, in particular the launch of new mobile money services, changes to regulation, and the evolution of market dynamics.

The main update is carried out on annual basis, incorporating reported figures from the GSMA Global Adoption Survey of Mobile Financial Services. As such, December 2014 figures which were published in the 2014 State of the Industry Report have been updated with reported data from the 2015 survey data.

Disclaimer

This report is based on data collected through the annual GSMA Global Adoption Survey of Mobile Financial Services, the GSMA Mobile Money Deployment Tracker, Mobile Money Estimates & Forecasts, and internal analysis by the team.

Survey data - Survey data is self-reported and has not been verified independently by the GSMA. Before data is entered, it is thoroughly checked for what is included and excluded, as well as how the metric is defined by the participant. Data is also cross-checked against regional benchmarks and other data sources.

Confidentiality - Data published in this report is always presented in a way to protect the confidentiality of each deployment. We only highlight services where the service provider has granted approval to disclose key performance information.

TABLE A

Definitions of mobile financial services

Mobile money	Mobile savings
Uses the mobile phone to transfer money and make payments to the underserved. The GSMA Mobile Money team tracks mobile money services which meet the following criteria: • The service must offer at least one of the following products: domestic or international transfer, mobile payments including bill payment, bulk disbursement, and merchant payment. • The service must rely heavily on a network of transactional points outside bank branches and ATMs which make the service accessible to unbanked and underbanked people. Customers must be able to use the service without having been previously banked. Mobile banking services which offer the mobile phone as just another channel to access a traditional banking product, and payment services linked to a current bank account or credit card, such as Apple Pay and Google Wallet, are not included. The service must offer an interface for initiating transactions for agents and/or customers which is available on basic mobile devices.	Uses the mobile phone to provide savings services to the underserved. The GSMA Mobile Money team tracks mobile savings services which meet the following criteria: • The service allows subscribers to save money in an account which provides principal security, and, in some cases, an interest rate. • The service must allow underserved people to save money using a mobile device. Services which offer the mobile phone as just another channel to access a traditional savings account are not included. The service must be available on basic mobile devices.
Mobile insurance	**Mobile credit**
Uses the mobile phone to provide insurance services to the underserved. The GSMA Mobile Money team tracks mobile insurance services which meet the following criteria: • The service must allow subscribers to manage risks by providing a guarantee of compensation for specified loss, damage, illness, or death. • The service must allow underserved people to access insurance services easily using a mobile device. Services which offer the mobile phone as just another channel for the clients of an insurance company to access a traditional insurance product are not included. The service must be available on basic mobile devices.	Uses the mobile phone to provide credit services to the underserved. The GSMA Mobile Money team tracks mobile credit services which meet the following criteria: • The service allows subscribers to borrow a certain amount of money which they agree to repay within a specified period of time. • The service must allow underserved people to apply for credit and repay it more easily using a mobile device. Airtime credit products or services which offer the mobile phone as just another channel to access a traditional credit product are not included. The service must be available on basic mobile devices.

Appendix B – Glossary

Certain definitions were taken from the Guideline Note on Mobile Financial Services: Basic Terminology, by the AFI Mobile Financial Services Working Group.

Agent outlet

In the case of mobile money, an agent outlet is a location where one or several mobile money agents are 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. As they are the human touch point for the mobile money service, 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. The kinds of individuals or businesses that can serve as agents will sometimes be limited by regulation, but small-scale traders, microfinance institutions, chain stores, and bank branches serve as agents in some markets. 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.

An active agent outlet is an agent outlet that facilitated at least one transaction within the last 30 days.

Airtime top-up

Purchase of airtime via mobile money, funded from a mobile money account.

Anti-money laundering/ combating the financing of terrorism (AML/CFT)

A set of rules, typically issued by central banks, that attempt to prevent and detect the use of financial services for money laundering or to finance terrorism. The global standard-setter for AML/CFT rules is the Financial Action Task Force (FATF).

Bank account-to-mobile money account transfer

A direct transfer of funds made from a customer bank account to a mobile money account. This transaction typically requires a commercial agreement and technical integration between the bank and the mobile money provider to allow direct account-to-account (A2A) transfers.

Bill payment

A payment made by a person from either their mobile money account or over-the-counter to a biller or a billing organisation via a mobile money platform in exchange for services provided.

Bulk disbursement

A payment made by an organisation via a mobile money platform to a person's mobile money account. For example: salary payments made by an organisation to an employee's mobile money account (B2P: business-to-person), payments made by a government to a recipient's mobile money account (G2P), or payments made by development organisations to beneficiaries (D2P).

Cash-in

The process by which a customer credits their account with cash. This is usually via an agent who takes the cash and credits the customer's mobile money account with the same amount of e-money.

Cash-out

The process by which a customer deducts cash from their mobile money account. This is usually via an agent who gives the customer cash in exchange for a transfer of e-money from the customer's mobile money account.

E-money

Short for "electronic money," e-money is stored value held in the accounts of users, agents, and the provider of the mobile money service. Typically, the total value of e-money is mirrored in (a) bank account(s), such that even if the provider of the mobile money service were to fail, users could recover 100% of the value stored in their accounts. That said, bank deposits can earn interest, while e-money traditionally cannot.

Enabling regulation

An 'enabling regulatory approach' for mobile money is one in which the rules established by the regulator[57]

- Permit non-banks to issue electronic money (or equivalent)[58] by allowing them to:
  - be licensed directly, OR
  - set up a subsidiary for this business, OR
  - apply for a payments bank (or equivalent) licence, OR
  - provide the mobile money service under a letter of no-objection to the non-bank or its partner bank, pending the approval of a specific regulation,
- AND imposes initial and ongoing capital requirements that are proportional to the risks of the e-money business,
- AND permits them to use agents for cash-in and cash-out operations,
- AND does not prescribe the implementation of specific interoperability models without allowing for a market-led approach.

57. These rules may be codified or may be outlined in individual "letters of no-objection".
58. In some cases, regulators authorise providers to offer such services under a different name, such as "mobile money", "mobile payment", or "electronic deposit".

Escrow (trust) account	To ensure that a customer's money is available when the customer wants to redeem it, regulators typically require that the non-bank mobile money provider maintain liquid assets equal in value to the amount of money issued electronically. These funds are usually pooled and held by one or more banks in the name of the issuer (or in the name of a trustee appointed by the issuer). The account in which the funds are pooled is known as an escrow account (or a trust account where the issuer has appointed a trustee). In countries with a common law legal tradition, the funds typically are held in trust for the benefit of the mobile money users. In countries where the common law concept of trust does not exist, mobile money users typically have a right to claim these funds under the law of contract.
Float	The balance of e-money, physical cash, or money in a bank account that an agent can immediately access to meet customer demands to purchase (cash-in) or sell (cash-out) electronic money.
Government-to-person (G2P) payment	A payment by a government to a person's mobile money account.
Informal financial services	Financial services offered by unregulated entities. Examples of informal financial services are 'susu' collections in Ghana, 'loan shark' lending, savings groups, etc.
International remittance	Cross-border fund transfer from one person to another person. This transaction can be a direct mobile money remittance, or can be completed through the use of an intermediary organisation such as Western Union.
Interoperability	The ability for customers to undertake money transfers between two accounts at different mobile money schemes, or to transfer money between accounts at mobile money schemes and accounts at banks. To date, MNOs in seven markets have interoperated their mobile money schemes.
Know-Your-Customer (KYC)	Financial institutions and regulated financial services providers are obligated by regulation to perform due diligence to identify their customers. The term is also used to refer to the regulation which governs these activities. The FATF (Financial Action Task Force) recommends a risk-based approach to due diligence for AML/CFT (anti-money laundering and counter-financing of terrorism) controls. Due to the lack of formal identity documents in some markets, solutions such as tiered KYC and adjusting acceptable KYC documentation can help mobile money providers facilitate customer adoption and increase financial inclusion, especially in rural areas.

Liquidity management

The management of the balance of cash and e-money held by a mobile money agent in order to meet customers' demands to purchase (cash-in) or sell (cash-out) e-money. The key metric used to measure the liquidity of an agent is the sum of their e-money and cash balances (also known as their float balance).

Merchant payment

A payment made from a mobile money account via a mobile money platform to a retail or online merchant in exchange for goods or services.

Mobile credit

Mobile credit uses the mobile phone to provide credit services to the underserved. GSMA Mobile Money tracks mobile credit services which meet the following criteria:

- The service allows subscribers to borrow a certain amount of money which they agree to repay within a specified period of time.
- The service must allow underserved people to apply for credit and repay it more easily using a mobile device. Airtime credit products or services which offer the mobile phone as just another channel to access a traditional credit product are not included.
- The service must offer an interface for initiating transactions for agents and/or customers which is available on basic mobile devices.

Mobile financial services (MFS)

The use of a mobile phone to access financial services and execute financial transactions. Mobile money, mobile insurance, mobile credit, and mobile savings are mobile financial services.

Mobile insurance

Mobile insurance uses the mobile phone to provide microinsurance services to the underserved. GSMA Mobile Money tracks mobile insurance products which meet the following criteria:

- The service must allow subscribers to manage risks by providing a guarantee of compensation for specified loss, damage, illness, or death.
- The service must allow underserved people to access insurance services easily using a mobile device. Services which offer the mobile phone as just another channel for the clients of an insurance company to access a traditional insurance product are not included.
- The service must offer an interface for initiating transactions for agents and/or customers which is available on basic mobile devices.

Mobile money

Mobile money is a service which the underserved can use to make and receive payments using a mobile phone. GSMA Mobile Money tracks mobile money services which meet the following criteria:

- The service must offer at least one of the following services: P2P transfer, bill payment, bulk disbursement, merchant payment, and international remittance.
- The service must rely heavily on a network of transactional points outside bank branches which make the service accessible to unbanked and underbanked people. Customers must be able to use the service without having been previously banked. Mobile banking services which offer the mobile phone as just another channel to access a traditional banking product, and payment services linked to a current bank account or credit card such as Apple Pay and Google Wallet, are not included.
- The service must offer an interface for initiating transactions for agents and/or customers which is available on basic mobile devices.

Mobile money account

An e-money account which is primarily accessed using a mobile phone and which is held with the e-money issuer. In some jurisdictions, e-money accounts may resemble conventional bank accounts, but are treated differently under the regulatory framework because they are used for different purposes (for example, as a surrogate for cash or a stored value used to facilitate transactional services).

An active mobile money account is a mobile money account which has been used to conduct at least one transaction during a certain period of time (usually 90 days or 30 days).

Mobile money ecosystem

The mobile money ecosystem includes mobile money providers and all third-party organisations which can benefit from mobile money, either by using it as a payment mechanism or leveraging mobile money accounts. The mobile money ecosystem facilitates transactions from different sectors such as retail, utilities, healthcare, education, agriculture and transport, as well as insurance, savings, and credit.

Mobile network operator (MNO)

A company which has a government-issued licence to provide telecommunications services through mobile devices.

Mobile savings

Mobile savings uses the mobile phone to provide savings services to the underserved. GSMA Mobile Money tracks mobile savings services which meet the following criteria:

- The service allows subscribers to save money in an account which provides principal security and, in some cases, an interest rate.
- The service must allow underserved people to save money using a mobile device. Services which offer the mobile phone as just another channel to access a traditional savings account are not included.
- The service must offer an interface for initiating transactions for agents and/or customers which is available on basic mobile devices.

Money transfer operator (MTO)

A company which has a government-issued licence to provide money transfer services.

Off-net transfer

Transfers which are initiated by registered mobile money users to unregistered users are typically referred to as off-net (off-network) transfers. Some deployments may refer to an off-net transfer as a voucher, coupon, or token. In this case, the e-money will need to be cashed out at an agent of the sender's agent network. Transfers between two accounts of different but interconnected mobile money schemes are also sometimes referred to as "off-net transfers", although in this report they are distinguished with the term "A2A cross-net transfers".

Over-the-counter (OTC) services

Some mobile money services are being offered primarily over-the-counter (OTC). In such cases, a mobile money agent performs the transactions on behalf of the customer, who does not need to have a mobile money account to use the service.

Person-to-person (P2P) transfer

A transfer made from one person to another person.

Platform

The hardware and software that enables the provision of a mobile money service.

Point of sale (POS)

A retail location where payments are made for goods or services. A "POS device" denotes a specialised device which is used to accept the payment, for example, a card reader.

Regulator

In the context of mobile money, this typically refers to the regulator who has supervisory authority over financial institutions within a particular country, usually the central bank or other financial authority.

Unbanked	Customers who do not have a bank account or transaction account at a formal financial institution.
Underbanked	Customers who may have access to a basic transaction account offered by a formal financial institution, but still have financial needs that are unmet or not appropriately met.
Unregistered users	Unregistered users include both people transacting over-the-counter in the case of OTC services, and unregistered recipients of off-net P2P transfers in the case of account-based services.
Voucher	Money sent as an off-net transfer from a mobile money account holder to an unregistered recipient, along with a code for the recipient to withdraw the funds at an agent outlet. Also known as a coupon or token.
Mobile money account-to-bank account transfer	A direct transfer of funds made from a mobile money account to a customer bank account. This transaction typically requires a commercial agreement and technical integration between the bank and the mobile money provider to allow direct account-to-account (A2A) transfers.







Appendix C – Figures & text boxes



FIGURES

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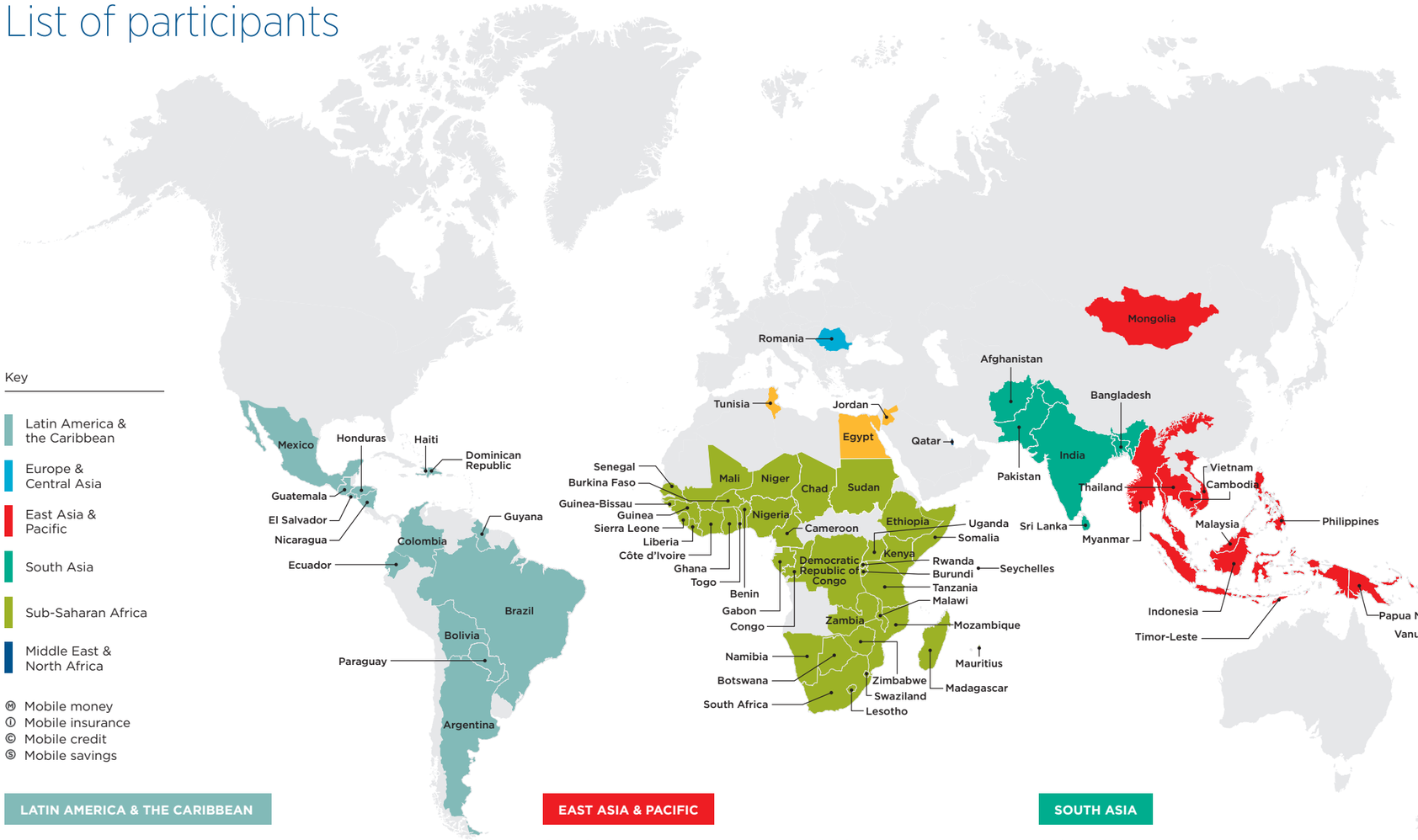
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Appendix D - List of participants



SUB-SAHARAN AFRICA

BENIN
Moov (Etisalat) Ⓜ
BOTSWANA
Orange Ⓜ
BURKINA FASO
Airtel (Bharti Airtel) Ⓜ
MicroEnsure Ⓘ
CAMEROON
MTN Ⓜ Orange Ⓜ
CHAD
Tigo (Millicom) Ⓜ
Airtel (Bharti Airtel) Ⓜ
CONGO
Airtel (Bharti Airtel) Ⓜ
CONGO, DEMOCRATIC REPUBLIC OF
Tigo (Millicom) Ⓜ
Airtel (Bharti Airtel) Ⓜ
CÔTE D'IVOIRE
Qash Services Ⓜ
Orange Ⓜ MTN Ⓜ
GHANA
MTN Ⓜ Tigo (Millicom) Ⓜ
Airtel (Bharti Airtel) ⓂⒸⓈⒾ
BIMA Ⓘ MicroEnsure Ⓘ
GUINEA
MTN Ⓜ Orange (Sonatel) Ⓜ
GUINEA-BISSAU
MTN Ⓜ
KENYA
Safaricom ⓂⒸⓈ MicroEnsure Ⓘ
Airtel (Bharti Airtel) Ⓜ
MobiKash Afrika ⓂⒸ Airtel Networks Kenya Limited ⒸⓈ
LESOTHO
Vodafone Ⓜ
LIBERIA
Lonestar (MTN) Ⓜ
MADAGASCAR
Orange Ⓜ
Airtel (Bharti Airtel) ⓂⒾ
MicroEnsure Ⓘ
MALAWI
Airtel (Bharti Airtel) Ⓜ
MicroEnsure Ⓘ
MALI
Orange (Sonatel) Ⓜ
MAURITIUS
BIMA Ⓘ
NIGER
Orange Ⓜ MicroEnsure Ⓘ
NIGERIA
Cellulant Ltd ⓂⒸⓈ
Teasy Mobile Ⓜ MicroEnsure Ⓘ
MTN Ⓘ
RWANDA
Tigo (Millicom) Ⓜ MTN ⓂⒾ
Airtel (Bharti Airtel) ⓂⒸ Tigo Ⓢ
SENEGAL
Orange (Sonatel) Ⓜ BIMA Ⓘ
Tigo (Millicom) Ⓜ
SEYCHELLES
Airtel (Bharti Airtel) Ⓜ
SOMALIA
Telesom, Somaliland Ⓜ
SOUTH AFRICA
MTN Ⓜ Vodacom Ⓜ
SUDAN
Bank of Khartoum Ⓜ MTN Ⓜ
SWAZILAND
MTN Ⓜ
TANZANIA
Tigo (Millicom) Ⓜ
Vodacom ⓂⒸⓈ
Airtel (Bharti Airtel) Ⓜ BIMA Ⓘ
UGANDA
Airtel (Bharti Airtel) Ⓜ MTN ⓂⒾ
UT Mobile (Uganda Telecom) Ⓜ
Uganda Telecom Limited Ⓢ
ZAMBIA
Zoona Ⓜ MTN Ⓜ Airtel (Bharti Airtel) Ⓜ MicroEnsure Ⓘ
ZIMBABWE
Telecel Zimbabwe ⓂⒾ
NetOne Ⓜ

LATIN AMERICA & THE CARIBBEAN

ARGENTINA
Sicom Ⓜ
BOLIVIA
Tigo (Millicom) Ⓜ
BRAZIL
TIM Ⓜ Vivo (Telefónica) Ⓜ Oi Ⓜ Olha Conta Ⓜ
COLOMBIA
DaviPlata Ⓜ
DOMINICAN REPUBLIC
Orange Ⓜ
ECUADOR
Banco Central de Ecuador Ⓜ
EL SALVADOR
Tigo (Millicom) Ⓜ
GUATEMALA
Tigo (Millicom) Ⓜ
GUYANA
Guyana Telephone and Telegraph Company (GT&T) Ⓜ
HAITI
Digicel Ⓜ Haitipay Ⓜ BIMA Ⓘ
HONDURAS
Tigo (Millicom) Ⓜ BIMA Ⓘ
MEXICO
eZuza Ⓜ
Telcel (América Móvil) Ⓜ
NICARAGUA
mPeso Ⓜ
PARAGUAY
Tigo (Millicom) ⓂⒸ BIMA Ⓘ

EAST ASIA & PACIFIC

CAMBODIA
WING Ⓜ BIMA Ⓘ
FIJI
Digicel Ⓜ
INDONESIA
Indosat (Ooredoo) Ⓜ BIMA Ⓘ
MALAYSIA
Digi Telecommunications Ⓘ
Telenor Ⓜ
MYANMAR
myKyat Ⓜ
MONGOLIA
MobiCom Ⓜ
PAPUA NEW GUINEA
Nationwide Microbank ⓂⓈ BIMA Ⓘ
PHILIPPINES
Smart (PLDT) Ⓜ
THAILAND
AIS Ⓜ
TIMOR-LESTE
BNU (Banco Nacional Ultramarino) Ⓜ
TONGA
Digicel Ⓜ
VANUATU
Digicel Ⓜ
VIETNAM
mService Ⓜ

SOUTH ASIA

AFGHANISTAN
Roshan (TDCA) Ⓜ MSDA Ltd. Ⓢ
BANGLADESH
banglalink (Global Telecom) Ⓜ
Dutch-Bangla Bank Limited Ⓜ
Trust Bank Ⓜ Grameenphone (Telenor) ⓂⒾ Robi (Axiata) ⓂⒾ bKash ⓂⒾⓈ BIMA Ⓘ MicroEnsure Ⓘ
INDIA
My Mobile Payments Ltd (MMPL) Ⓜ Eko ⓂⓈ
PAKISTAN
Habib Bank Limited Ⓜ Telenor Ⓜ Ⓢ Mobilink (Global Telecom) Ⓜ
UBL Bank ⓂⒾ Ufone (PTCL) Ⓜ
United Bank Limited Ⓢ
MicroEnsure Ⓘ Easypaisa Ⓘ
Mobilink Ⓘ
SRI LANKA
Dialog (Axiata) Ⓜ BIMA Ⓘ
Mobitel (Sri Lanka Telecom) Ⓜ

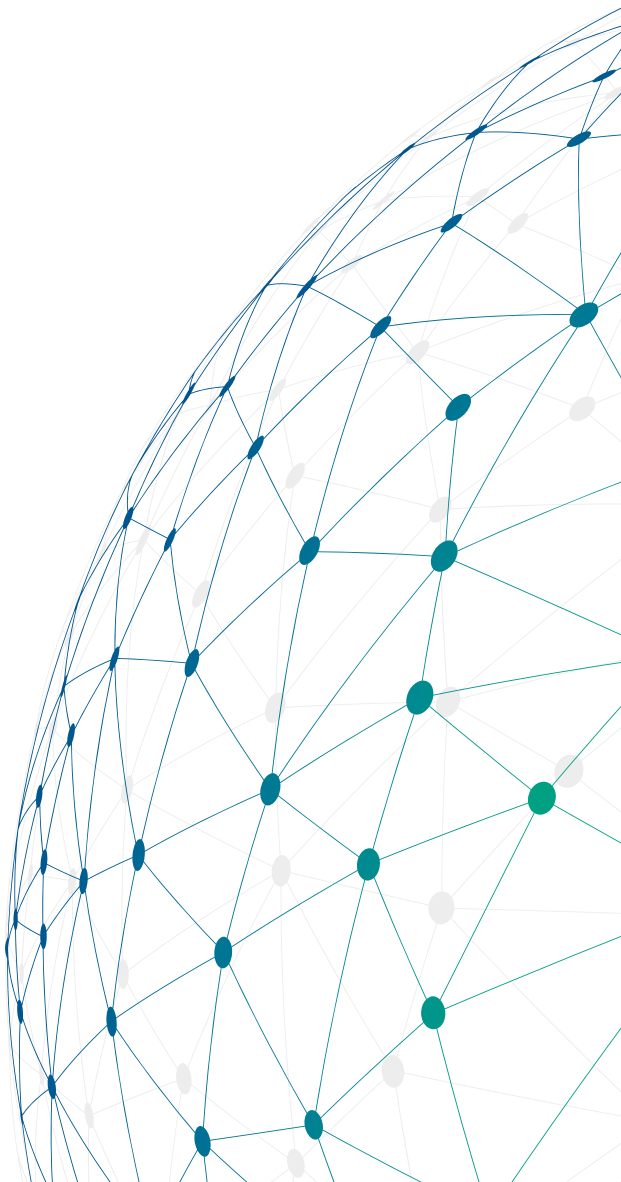
MIDDLE EAST & NORTH AFRICA

EGYPT
Mobinil Ⓜ
JORDAN
Zain Ⓜ
QATAR
Ooredoo Ⓜ
TUNISIA
Tunisiana (Wataniya) Ⓜ
Ooredoo Ⓒ

EUROPE & CENTRAL ASIA

ROMANIA
Vodafone Ⓜ

For the full report please visit the GSMA Mobile Money website at www.gsma.com/mobilemoney



GSMA HEAD OFFICE
Floor 2
The Walbrook Building
25 Walbrook
London EC4N 8AF
United Kingdom
Tel: +44 (0)20 7356 0600
Fax: +44 (0)20 7356 0601