State of the Industry Report on Mobile Money

2018

The GSMA represents the interests of mobile operators worldwide, uniting more than 750 operators with over 350 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 the industry-leading MWC events held annually in Barcelona, Los Angeles and Shanghai, as well as the Mobile 360 Series of regional conferences.

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Mobile Money

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

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

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For over a decade, mobile money has been transforming access to financial services around the world. The scale of mobile money continues to grow, with more than 866 million registered accounts in 90 countries and $1.3 billion transacted every day. The progress, challenges and most ground-breaking industry trends are explored in this year's flagship report from the GSMA's Mobile Money team.

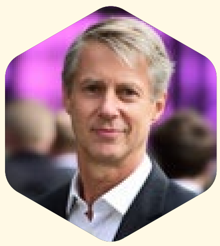
For the world's most vulnerable, especially displaced persons and women, the benefits of mobile money are real and far reaching. Fifty-five per cent of surveyed mobile money providers have now partnered with humanitarian organisations, an initiative closely supported by our Mobile for Humanitarian Innovation programme. In August 2018, our Connected Women team released the Gender Analysis and Identification Toolkit (GAIT), a machine learning algorithm that analyses mobile usage patterns, to assist operators in reaching underserved female customers with relevant and tailored products and services.

We were also honoured to launch the GSMA Mobile Money Certification in April 2018, demonstrating the mobile industry's commitment to bringing safe, transparent, and resilient financial services to mobile money users around the world. To date, nine providers across three continents have successfully certified, collectively covering over 133 million mobile money accounts.

The mobile money industry is now fast-evolving against a backdrop of increasing internet access and smartphone adoption. Successful providers are moving towards a 'payments as a platform approach', expanding their value proposition to a full range of third-party products and services to suit customers with diverse needs. This signals the start of a major shift in the mobile money industry, which will promote digitisation more broadly: mobile money customers will not just have access to an account, but rather to a full suite of services that are relevant to their daily lives, encouraging them to keep their funds in digital form and building resilience to financial shocks.

Now more than ever, mobile's unparalleled global scale provides a tremendous opportunity to reach the 1.7 billion people who remain financially excluded. I am pleased to have been appointed to the United Nations Secretary-General's Task Force on Digital Financing of the Sustainable Development Goals to harness this potential, and I look forward to working closely with fellow Task Force members to unleash the power of technology and digital financing in all corners of the world.

I hope that you enjoy exploring the 2018 State of the Industry Report on Mobile Money, which has been produced with the generous support of the Bill & Melinda Gates Foundation, The Mastercard Foundation and Omidyar Network.



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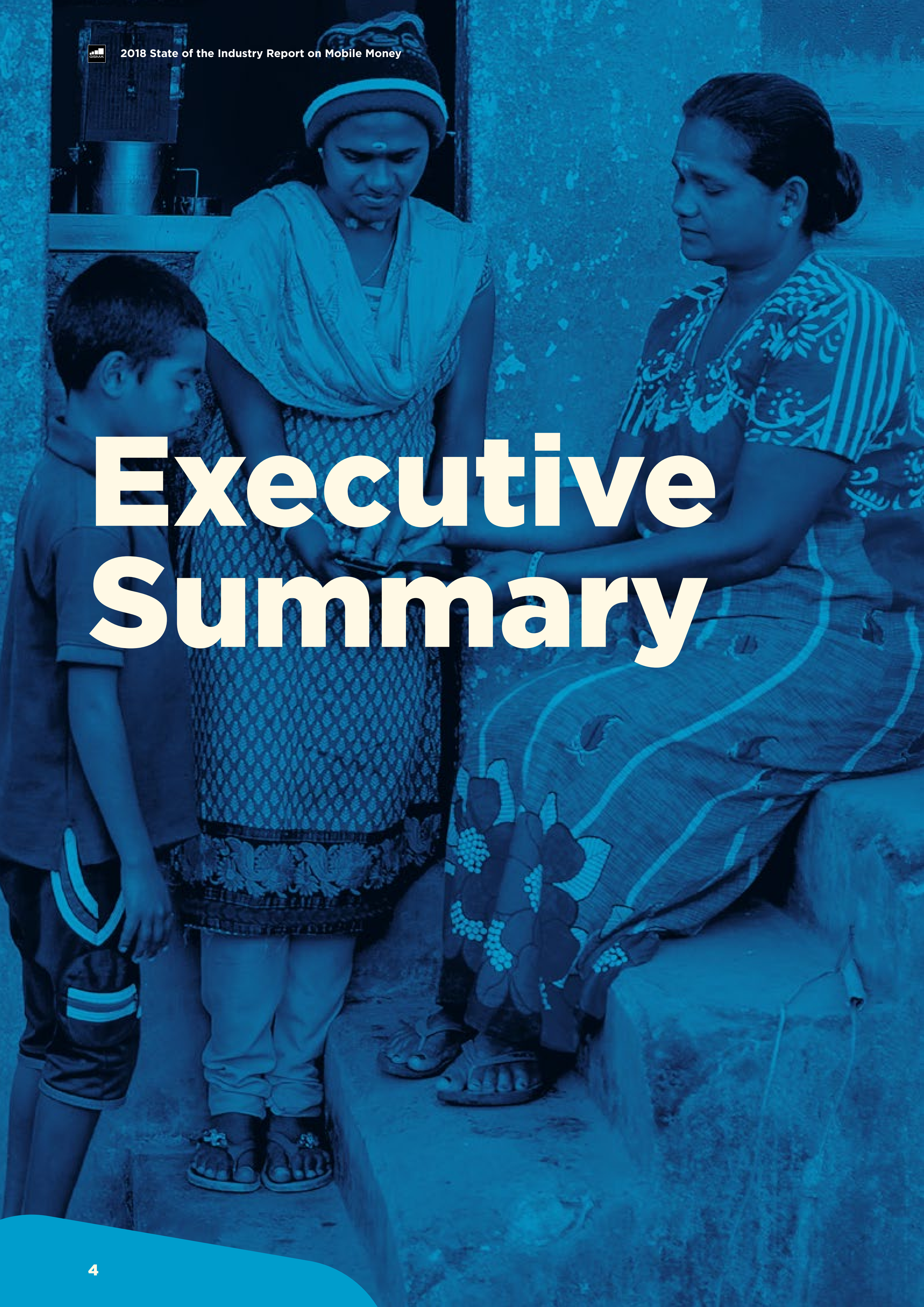
Director General, GSMA



Executive Summary

Executive Summary

Now processing over $1.3 billion a day, the mobile money industry added a record 143 million registered customers in 2018.

Providers are attracting new investments and forming strategic partnerships, leveraging data and innovative financial technologies, and developing robust and interoperable payments systems to diversify their revenue, product offerings and customer base.

In 2018, following a decade of incredible growth, the mobile money industry is still getting the fundamentals right. Mobile money accounts continue to provide a gateway to life-enhancing services, such as healthcare, education, financial services, employment and social protections, which are reaching customers who have traditionally been underserved by the financial system. Many industry players have reached scale, and account registrations, activity rates and transaction values continue to grow steadily.

While cash-in and cash-out transactions still represented the majority of mobile money flows in 2018, digital transactions grew at twice the rate, driven largely by bill payments and bulk disbursements. Successful providers are now looking to strengthen their value proposition with a full suite of use cases that serve diverse customer needs. This shift towards a 'payments as a platform' approach is at the heart of the industry's new direction.

This year's State of the Industry Report looks at how providers are navigating this dynamic and shifting ecosystem, which was shaped by four key trends in 2018:

An enhanced customer experience. 2018 saw a dramatic increase in smartphone adoption in emerging markets, unlocking access to a broader customer base and allowing providers to offer a wider range of financial products and services through user-friendly apps. Interoperability also continued to be a strategic priority for the industry, not only to increase the utility of mobile money for users, but also to allow increasingly important use cases to scale up faster. The main drivers of digital growth in 2018 were bulk disbursements and bill payments — a signal that mobile money providers are becoming strong partners for enterprises.

Diversification of the financial services landscape. While large MNO groups still dominate Africa's mobile money ecosystem, in Asia, fintechs and tech giants have entered the payments space and developed a range of customer-centric use cases, from transportation to food, medical and financial services, and amassed a vast number of partners, including financial institutions. Mobile money providers in both Asia and Latin America, including fintech players, are driving growth in the mobile payment ecosystem, and expanding from e-commerce to offer financial services such as credit.

Increasingly complex regulation. As the number of players in the digital financial services ecosystem grows exponentially, regulation is becoming increasingly complex. Five main themes dominated the mobile money regulatory landscape in 2018: taxation, KYC requirements, cross-border remittances, national financial inclusion strategies and data protection. These developments call for a more nuanced evaluation of regulatory frameworks and collaboration between providers and regulators to achieve the mutual aim of expanding mobile money services.

Expansion of the mobile money value proposition. In our 2018 Global Adoption Survey, close to 80 per cent of providers reported that most of their revenues are driven by customer fees. Many providers are now seeking to strengthen their value proposition with a 'payments as a platform' model. This connects consumers and businesses with a range of third-party services to meet their evolving needs, from enterprise solutions for micro-, small- and medium-sized enterprises (MSMEs) to e-commerce, credit, savings and insurance.

It was not only these trends that captured our attention in 2018. Other compelling developments include reforms in Africa's three most populated countries, Nigeria, Ethiopia and Egypt, which we expect to spark a wave of adoption which could lead to over 110 million new mobile money accounts in the next five years.

Mobile money continues to play a vital role in financial inclusion. Globally, around 1.7 billion people still lack access to safe, reliable and convenient financial services.[1] However, 31 emerging markets have seen an impressive increase in financial inclusion rates, which can be attributed to simultaneous growth in active mobile money use.

Although much work remains to be done in **closing the mobile money gender gap**, there is evidence from the 2017 Global Findex that the mobile money gender gap has narrowed in 17 countries in Sub-Saharan Africa and in one country in Latin America (Bolivia). Our Global Adoption Survey data revealed a strong positive correlation between the percentage of female agents in a provider's network and female customers.

In this report, we take a closer look at these trends and unfolding industry stories. The full findings of this year's State of the Industry Report on Mobile Money are based on the analysis of data collected through the GSMA's Annual Global Adoption Survey.

1. World Bank Group (2018). The Global Findex Database 2017.

MOBILE MONEY IN 2018

272
MOBILE MONEY DEPLOYMENTS
ARE LIVE IN
90
COUNTRIES

866m
REGISTERED MOBILE MONEY ACCOUNTS
20% increase from 2017

62 MOBILE MONEY DEPLOYMENTS HAVE MORE THAN **1m** 90-DAY ACTIVE ACCOUNTS
compared to **54** in 2017 and **13** in 2013

A TYPICAL ACTIVE MOBILE MONEY CUSTOMER MOVES
$206
PER MONTH

$1.3bn
processed daily
by the mobile money industry

54% OF THE COMBINED ADULT POPULATION OF
GHANA, CÔTE D'IVOIRE, BENIN AND SENEGAL
use mobile money on an active basis

ASIA
90m
NEW
NEW REGISTERED ACCOUNTS
31% increase from 2017

DIGITAL TRANSACTION VALUES
x2
Grew at more than TWICE the rate of cash-in/ cash-out values

THE BIG PICTURE:

Availability, adoption, accessibility and usage

THE BIG PICTURE: Availability, adoption, accessibility and usage

In its second decade, mobile money continues to reach new heights. Many industry players have scaled,[2] growth in transactions and accounts is steady, and innovative solutions are being implemented to reach customers who have traditionally been underserved by the financial system.

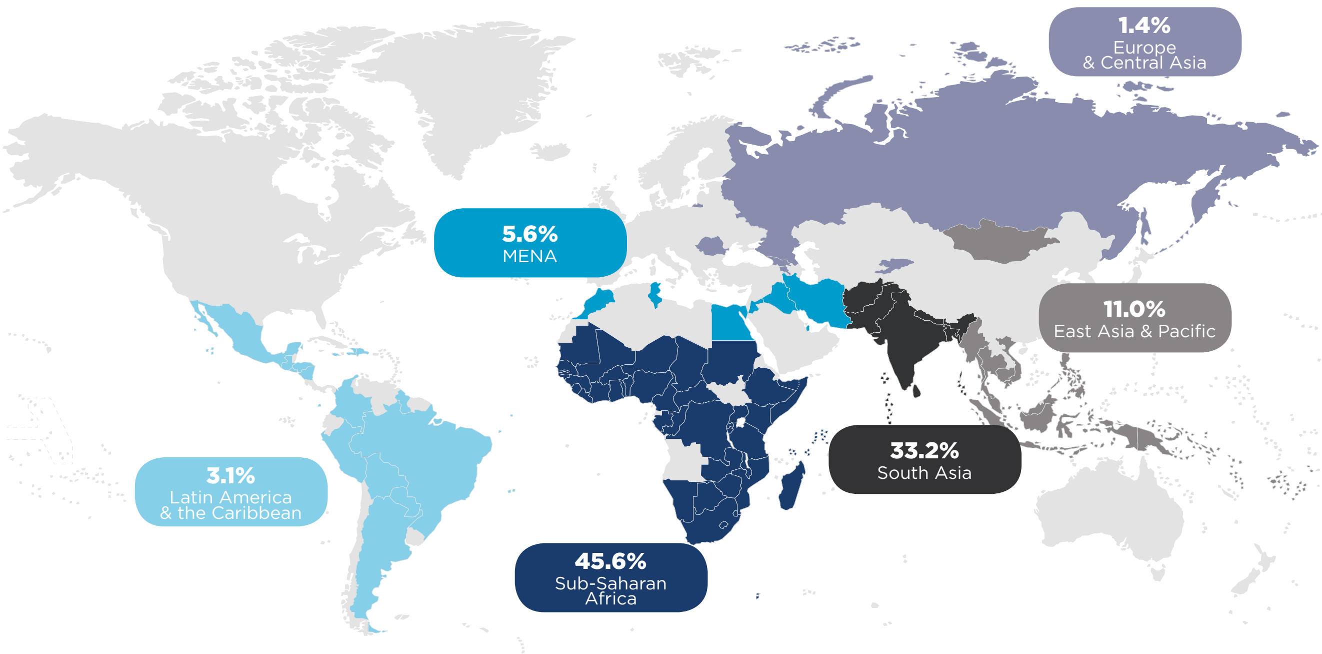
In 2018, the mobile money industry added another 143 million registered customers globally with the total number of accounts reaching 866 million — a 20 per cent year-on-year increase. As in 2017, most of this growth came from Asia, where 90 million new accounts were opened. East Asia and Pacific experienced the highest year-on-year account growth at 38 per cent, and the region now represents 11 per cent of registered accounts globally (Figure 1).

Activity rates are stable at the global level: 34.5 per cent of the world's registered accounts are now active,[3] up from 33.9 per cent in 2017. Activity rates are once again highest in Latin America and the Caribbean (48.5 per cent), while the biggest increases are in Asia (East Asia and Pacific and South Asia) where activity rates in several countries increased by more than 10 per cent. While activity rates in Sub-Saharan Africa remain stable at 36.8 per cent, largely unchanged from 2017, the region added over 17.5 million new active accounts in 2018. In 13 African countries,[4] over a third of adults are active mobile money users.

Transaction values increased by 17 per cent in 2018, with 272 live deployments in 90 countries transacting $40.8 billion in the month of December. The industry is therefore now processing over $1.3 billion per day, and while cash-in and cash-out transactions still represent the majority of mobile money flows, digital transactions[5] grew at more than twice the rate driven largely by bill payments and bulk disbursements. For the average active mobile money customer, this equates to 12 transactions a month worth $206.

2. Scale implies onboarding and activating a large proportion of a provider's customer base and increasing the number of transactions per customer.
3. An 'active' mobile money account is one that has been used to conduct at least one transaction during a 90-day period.
4. Benin, Botswana, Burkina Faso, Côte d'Ivoire, Gabon, Ghana, Kenya, Lesotho, Rwanda, Swaziland, Tanzania, Uganda and Zimbabwe.
5. Digital transactions are transactions which enter, leave or circulate the mobile money ecosystem in digital form, rather than through a cash conversion (cash-in or cash-out).

Figure 1. Global spread of registered mobile money customers, December 2018[6]



The potential of India's payments banks

While almost 80 per cent of India's population is now banked,[7] the country has one of the world's highest inactivity rates, with nearly half of banked customers (48 per cent) yet to perform a withdrawal or transaction.[8] This is the context in which payments banks began operating in 2016, and today there are seven in operation, three of which are MNO-led.

Payments banks are financial institutions that accept small-scale deposits (up to Rs1 lakh, or about $1,407 each), but are not allowed to lend. They began operating after the central bank, the Reserve Bank of India (RBI), granted in-principle payments bank licences to introduce unbanked and underserved customers to more formal channels.

Three years on, the sector has yet to show its true potential. Actions including a ban on new customer registration, the imposition of certain penalties, slow deposit collection and delayed launches were exacerbated when customer onboarding also became more complex. A recent Supreme Court ruling has created uncertainty around the extent to which the private sector may continue to use Aadhaar, India's digital identification system, to link accounts.

As a financial services platform, payments banks could re-bundle a host of innovative third-party services and leverage the services that traditional banks offer while also attracting unbanked customers, allowing India's payments banks to live up to their true potential.

6. Only countries with live mobile money services are represented.
7. World Bank Group (2018). The Global Findex Database 2017.
8. Ibid.

Unlocking future growth: Africa's mobile money sleeping giants

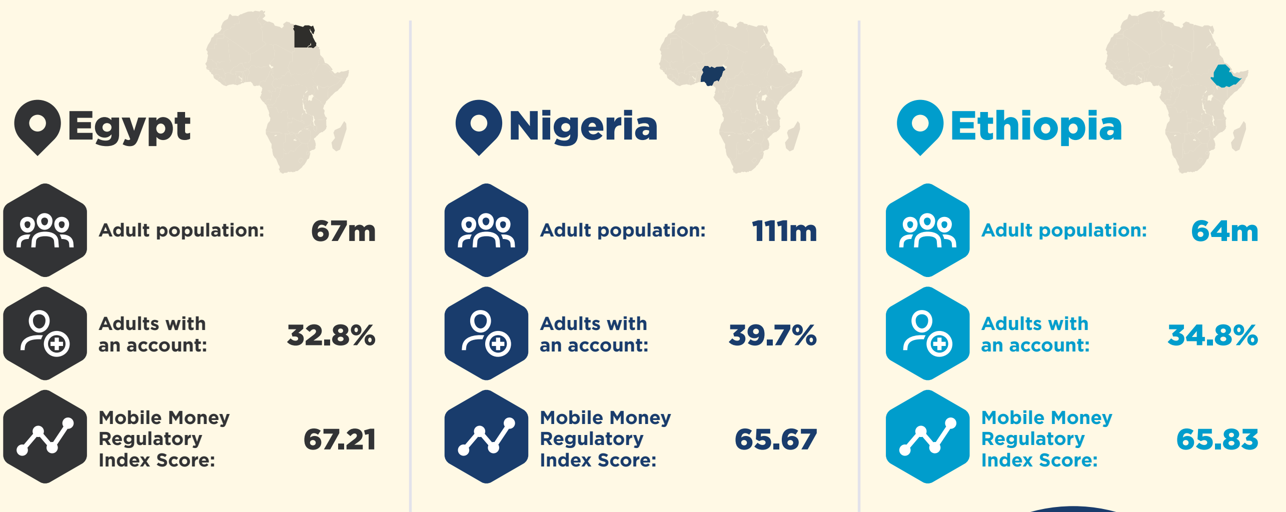
In a growing number of countries in Sub-Saharan Africa, a traditional stronghold of mobile money, over 60 per cent of the adult population has a mobile money account. While providers in these countries are still driving growth in registered accounts, rates will slow as the majority of the population gains access to mobile money. However, there is still a tremendous opportunity to unlock growth and increase financial inclusion in the continent's mobile money sleeping giants: Nigeria, Ethiopia and Egypt. Home to a combined adult population of over 242 million,[9] Africa's three most populated countries have had limited availability of mobile money services and low rates of financial inclusion (Figure 2).[10]

The reasons for this vary. In Nigeria and Egypt, regulatory frameworks have allowed few players to offer mobile money services, resulting in lower levels of investment and fewer innovative products and services. In Ethiopia, a strictly regulated telco, restrictions on competition, lack of internet connectivity, and low levels of consumer trust and financial literacy have created barriers to uptake and market entry. The unfavourable market conditions in these countries are reflected in their low scores on the GSMA's Mobile Money Regulatory Index (see page 29). These scores are due to factors such as restrictive or unclear legal frameworks, lack of flexibility and clarity around innovation and investment, and disproportionate Know Your Customer (KYC) requirements.[11]

But change is coming. In 2018, regulatory reforms were introduced in Nigeria[12] and Egypt[13] to harness the potential of mobile money to drive financial inclusion, and reforms and an ambitious financial inclusion strategy in Ethiopia have been attracting the attention of both MNOs and non-MNO-led players.

Despite the challenges to overcome, we anticipate that these reforms could spark a wave of adoption in these three countries — over 110 million new mobile money accounts[14] in the next five years — and help to achieve the financial inclusion targets set out in their respective national financial inclusion strategies.

Figure 2. Africa's mobile money sleeping giants



Across Egypt, Ethiopia and Nigeria, over 110m mobile money accounts can be unlocked in the next five years

9. GSMA Intelligence and World Bank.
10. World Bank Group (2018). The Global Findex Database 2017.
11. This refers to the Authorisation, KYC and Infrastructure and Investment Environment dimensions of the Mobile Money Regulatory Index.
12. In October 2018, The Central Bank of Nigeria officially proposed the creation of Payment Service Banks.
13. Alliance for Financial Inclusion (2018) Financial inclusion through digital financial services and fintech: the case of Egypt.
14. GSMA analysis

MOBILE MONEY HIGHLIGHTS IN 2018

2018 saw efforts to pursue new investments and strategic partnerships, to leverage data and innovative financial technologies, and to develop robust and interoperable payments systems to support a range of use cases and financial products.

MARCH

INVESTMENT.
Telenor Group and Ant Financial enter a strategic partnership to deliver inclusive financial services in Pakistan.

APRIL

CONSUMER PROTECTION.
GSMA launches the GSMA Mobile Money Certification scheme. Over the course of the year, nine mobile money providers become certified, collectively covering over 133 million customer accounts.

GSMA MOBILE MONEY CERTIFICATION

APRIL

STRATEGIC PARTNERSHIP.
PayPal, Safaricom and TransferTo announce a collaboration enabling M-Pesa users in Kenya to securely transfer funds between PayPal and M-Pesa accounts.

APRIL

INVESTMENT.
Ant Financial invests in Bangladesh's bKash to expand the capabilities of the platform to ultimately boost financial inclusion.

SEPTEMBER

INVESTMENT.
American investment conglomerate Berkshire Hathaway acquires a four per cent stake in Paytm, India's largest digital payments company.

SEPTEMBER

INNOVATIVE USE CASES.
84.6 per cent of Ghanaian investors buy shares for MTN Ghana's Initial Public Offer (IPO) using the MTN Mobile Money Portal.

OCTOBER

REGULATION.
The Central Bank of Nigeria issues guidelines for the licensing, regulation and operations of payment service banks, enabling mobile operators to lead financial inclusion efforts.

NOVEMBER

REGIONAL INTEROPERABILITY.
Orange and MTN launch a pan-African mobile money interoperability venture, Mowali, to scale up mobile financial services across Africa.

mowali

NOVEMBER

STRATEGIC PARTNERSHIP.
Safaricom and Western Union partner to allow M-Pesa users to transfer money to and from 200 countries. Kenya's Family Bank Ltd and fintech SimbaPay also partner to enable M-Pesa customers in Kenya to send money to WeChat users in China.

NOVEMBER

INTERNATIONAL COMMITMENT.
The United Nations announces the launch of a global task force on Digital Financing of the Sustainable Development Goals, with the GSMA as a member.

DECEMBER

INVESTMENT.
Econet Wireless demerges and lists Cassava Smartech (which includes its EcoCash mobile money operation) separately on the Zimbabwe Stock Exchange (ZSE) valued at around $3.9 billion soon after listing.

REGIONAL GROWTH IN 2018

Region	Number of deployments	As of December	Registered accounts	Active 90-day accounts	Transaction volume	Value US$
GLOBAL	272 (TOTAL)	2017	722.9m	244.9m	2.1bn	34.9bn
		YEAR-ON-YEAR GROWTH	19.8%	**21.9%**	14.4%	16.8%
		2018	**866.2m**	**298.7m**	**2.4bn**	**40.8bn**
SUB-SAHARAN AFRICA	132	2017	348.3m	128.3m	1.5bn	23.3bn
		YEAR-ON-YEAR GROWTH	13.6%	13.6%	11.8%	**15.3%**
		2018	**395.7m**	**145.8m**	**1.7bn**	**26.8bn**
SOUTH ASIA	43	2017	223.7m	63.9m	447.5m	7.5bn
		YEAR-ON-YEAR GROWTH	28.5%	**39.9%**	26.3%	17.9%
		2018	**287.6m**	**89.3m**	**565.1m**	**8.8bn**
EAST ASIA & PACIFIC	41	2017	68.5m	21.1m	74.9m	2.7bn
		YEAR-ON-YEAR GROWTH	38%	**41.5%**	38.3%	35.7%
		2018	**94.6m**	**29.8m**	**103.6m**	**3.7bn**
LATIN AMERICA & THE CARIBBEAN	28	2017	23.5m	11.6m	**66.4m**	**1.0bn**
		YEAR-ON-YEAR GROWTH	14.7%	**10.3%**	-29.9%	-7.9%
		2018	**27m**	**13.1m**	46.5m	945m
MIDDLE EAST & NORTH AFRICA	20	2017	47.3m	18.0m	39.7m	376.2m
		YEAR-ON-YEAR GROWTH	3.4%	3.5%	5.6%	**25.7%**
		2018	**48.9m**	**18.6m**	**41.0m**	**473.0m**

Reaching the underserved through innovation

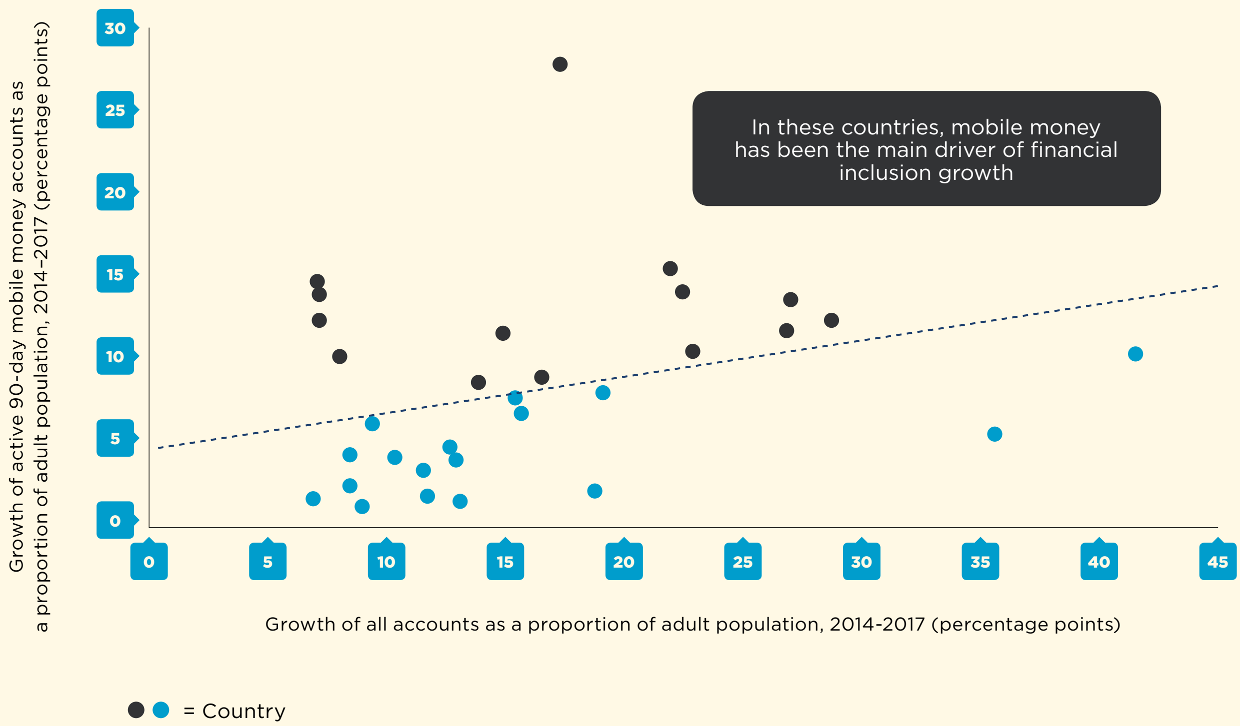
Reaching the underserved through innovation

Throughout 2018, mobile money continued to play a critical role in enhancing financial inclusion in emerging markets.

Thirty-one markets saw an impressive increase of more than five percentage points in account ownership at financial institutions between 2014 and 2017 (Figure 3), which can be attributed to the simultaneous growth in active mobile money use. In fact, in almost half these markets, growth in active mobile money use exceeded eight percentage points, and a third of the 31 countries analysed were in either Asia or Latin America, demonstrating that the impact of mobile money on financial inclusion has extended beyond Sub-Saharan Africa.

Countries where mobile money's contribution to the overall growth of financial accounts is not as significant tend to have a lower than average Regulatory Index score (see page 29). This highlights the importance of establishing a more level regulatory playing field which allows for innovative market-led solutions to increase financial inclusion.

Figure 3. The contribution of mobile money to financial inclusion



For populations traditionally excluded from the formal financial system — women, the rural poor and displaced persons — the spread of mobile money accounts is providing a gateway to transformative services including healthcare, education, financial services, employment and social protections, and bringing more people online than ever before.

Rural market penetration and the digitisation of agricultural value chains is a priority for a growing number of mobile money providers. While in developing economies about 15 per cent of adults receive payments from the sale of agricultural products, the vast majority of these payments are made in cash, which can be risky, inefficient and inconvenient to collect. In Ghana, Kenya and Zambia, the share of adults receiving agricultural payments is about twice the average for developing economies, and about 40 per cent receive these payments into an account, in most cases a mobile money account.[15] ***Over 50 per cent of survey respondents reported having a product specifically targeted to rural customers or plan to launch one in 2019.***

Mobile money is increasingly a vehicle for reaching forcibly displaced persons, including refugees. Over 135 million[16] people required humanitarian assistance and protection in 2018. To respond to these demands, humanitarian organisations are seeking to deliver services more efficiently and effectively and turning to digital financial services to replace in-kind aid with direct cash transfers. ***Our survey found that over 55 per cent of mobile providers in affected countries are partnering with humanitarian organisations, often to facilitate bulk disbursements or provide access to basic financial services.***

Closing the gender gap in financial inclusion will deliver broad benefits to individuals, societies and economies, and represents a considerable commercial opportunity for mobile operators. There is evidence that the mobile money gender gap is narrowing: according to the 2017 Global Findex, between 2014 and 2017, the gender gap closed in 17 countries in Sub-Saharan Africa and in one country in Latin America (Bolivia). However, much work remains to be done as women in low- and middle-income countries are still 33 per cent less likely than men to use mobile money[17] and 10 per cent less likely to own a mobile phone.[18]

Our 2018 Global Adoption Survey data showed that providers are leveraging their core assets to address the persistent gender gap in mobile ownership and use, with female agents emerging as powerful assets for reaching female customers. ***For those respondents providing data on both the percentage of their female agent base and female customer base, we found a strong positive correlation[19] between these two variables.***

15. World Bank Group (2018). The Global Findex Database 2017.
16. UNOCHA (2018). Global Humanitarian Overview.
17. World Bank Group (2018). The Global Findex Database 2017.
18. GSMA (2018). The Mobile Gender Gap Report 2018.
19. +0.7 on the Pearson Product-Moment Correlation Coefficient. If the value of r is close to +1, this indicates a strong positive correlation. This was among survey respondents based in East Asia and Pacific, Sub-Saharan Africa, Latin America and the Caribbean, and South Asia, who answered both questions on their registered female customer base and percentage of female agents.

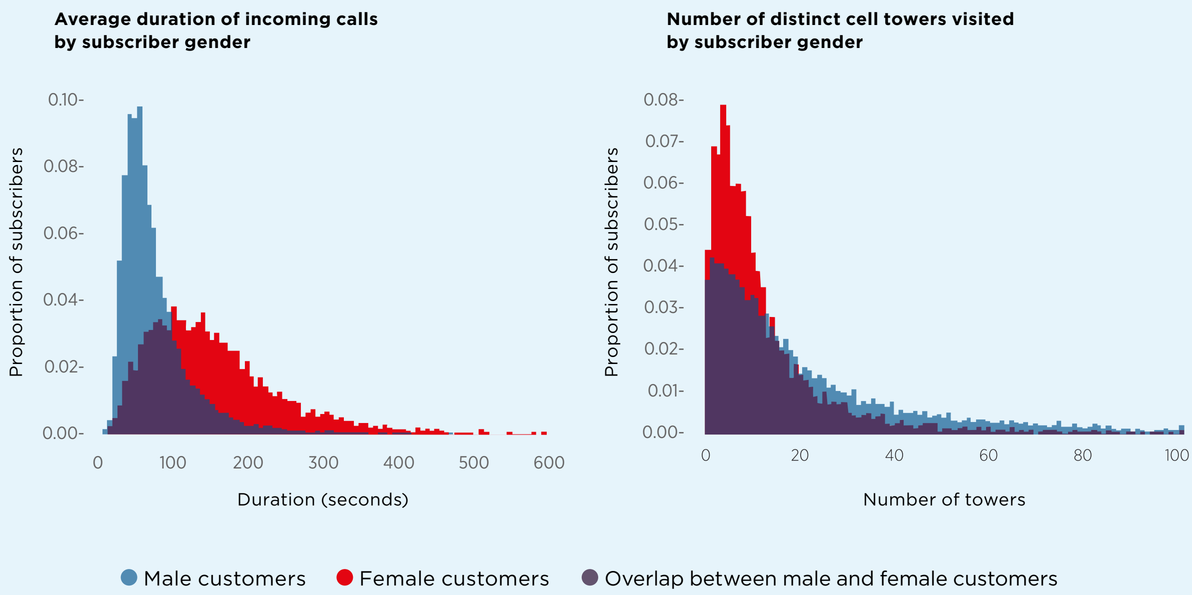
Predicting the gender of mobile subscribers using machine learning

Understanding the nature and scale of the mobile gender gap is a prerequisite for closing it, but a widespread absence of accurate gender-disaggregated data is a consistent barrier to measuring and evaluating mobile ownership and mobile money use. This limits the ability of operators to target underserved female customers with effective, relevant and tailored products and services.

To address this issue, the GSMA Connected Women programme, in conjunction with Dalberg Data Insights, developed the Gender Analysis and Identification Toolkit (GAIT),[20] a machine learning algorithm that analyses mobile usage patterns and allows operators to predict the gender of its subscribers. By training the algorithm on a small but accurately gender-tagged sample of a customer base, operators can see usage patterns by gender and identify the gender of each of its subscribers with little need for expensive primary research.

Once an operator has implemented GAIT across its subscriber base, the gender estimates can be applied to mobile money customers at an individual subscriber level. In Bangladesh, a GAIT pilot achieved 84.5 per cent accuracy in gender prediction. Figure 4 below illustrates how mobile usage differed between male and female subscribers for two key indicators.

Figure 4. Key gender-disaggregated mobile usage indicators from the GAIT pilot in Bangladesh



20. To access the GAIT toolkit and full technical documentation, see: "The GSMA's Gender Analysis and Identification Toolkit (GAIT)".

Four trends shaping the mobile money industry

Four trends shaping the mobile money industry

Mobile money is on the cusp of a transformation. Today, providers are navigating a dynamic and shifting ecosystem shaped by four key trends: an enhanced customer experience; diversification of the financial services ecosystem; increasingly complex regulation; and the expansion of the mobile money value proposition.

1

An enhanced customer experience

While cash-in and cash-out transactions still represent the majority of mobile money flows in 2018 and grew by 11 per cent year on year, digital transaction values grew more than twice as fast (24 per cent).

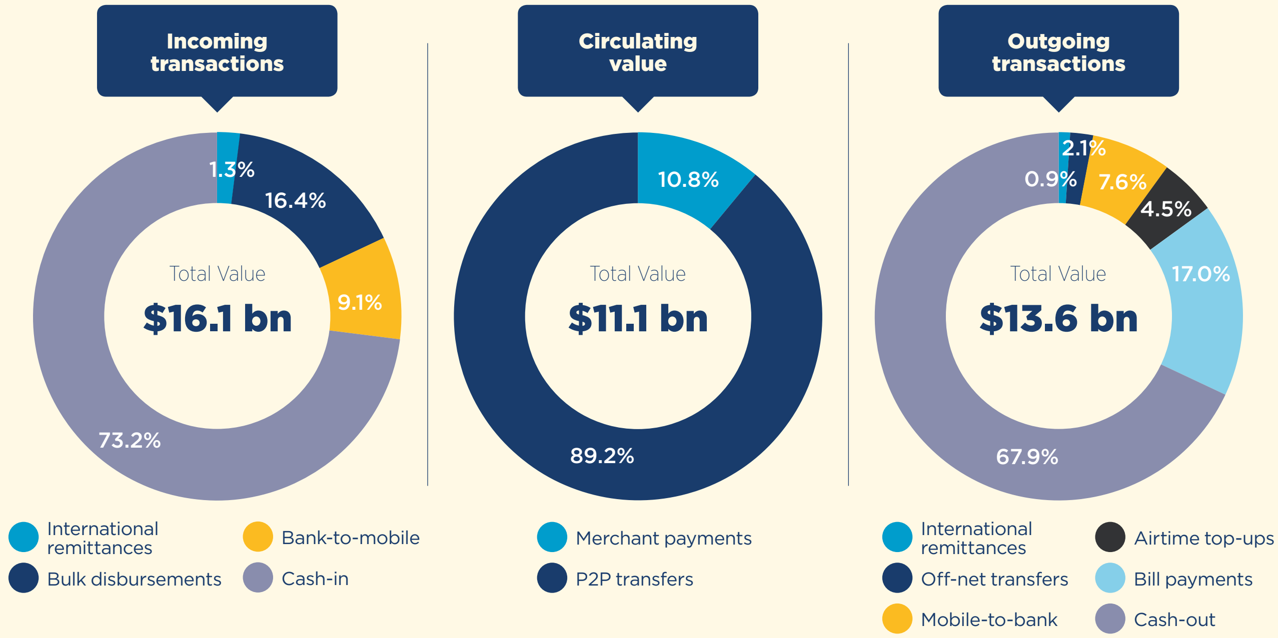
The main drivers of digital growth in 2018 were bulk disbursements, which grew by 29 per cent, and bill payments, which grew by 41 per cent — a signal that mobile money providers are becoming strong partners for enterprises (Figure 5). Around 68 per cent of all bulk disbursements are originated by a business and, on average, every mobile money provider performing business-to-person (B2P) disbursements is connected to 237 organisations. This number of connected organisations can be as high as 4,000 to 6,000 for the best-performing providers (based mainly in Latin America), which can have close to 30 per cent of their active customer base receiving salaries digitally through mobile money.

Meanwhile, mobile money providers offering bill payments are connected to 102 companies on average. Bill payments are also an effective way to digitise government payments and increase revenues. However, for our survey respondents, just over 17 per cent of all bill payments in 2018 were directed to government agencies. The opportunity is ripe for governments to follow the lead of private sector players in digitising payments and revenue collection, to benefit from the transparency, efficiency and profitability that mobile money delivers.

The agent distribution network, which has been vital to the growth of the mobile money industry over the last decade, shows no sign of diminishing.[21] In 2018, the global number of registered mobile money agents grew 18 per cent to reach 6.6 million, 57 per cent of whom are active on a monthly basis.

The role of the agent network is evolving to support adjacent service offerings. An increasing number of providers are investing in data collection and analytics, e-learning and technologies, including online dashboards, mobile apps, and conversational interfaces. In addition to enhancing user experience and enabling greater digital inclusion, these new services help to streamline operational processes by upgrading agent onboarding and training, and enhancing agent monitoring and engagement.

Figure 5. An overview of the mobile money ecosystem, December 2018



A strategic focus on interoperability

Account-to-account (A2A) interoperability, which gives users the ability to transfer between customer accounts held with different mobile money providers and other financial system players, continued to scale in 2018.

To lower barriers to access, mobile money providers must continue to develop robust interoperable payments systems that bridge the gap between banked and unbanked

consumers and accelerate financial inclusion. Interoperability continues to be a strategic

priority for the industry, not only to increase the utility of mobile money for users (by enabling the seamless movement of value between institutions), but also to enable increasingly important use cases, such as bulk disbursements and bill payments, to scale up faster.

Providers in several key markets have expanded interoperability use cases, including in Kenya and Ghana, bringing the total number of markets that enable person-to-person (P2P) transactions between mobile money deployments to nineteen. In comparison, in 2013, this was only possible in one market. Overall, off-net P2P transaction volumes more than doubled from 2017 to 2018, and in interoperable markets, on-net transaction volumes did not decline.

21. Juma. J. and Wasunna. N. (2018). Distribution 2.0: The future of mobile money agent distribution networks. GSMA.

Mobile money-to-bank account interoperability has continued to grow significantly, increasing by 47 per cent year on year in 2018. On average, mobile money providers with bank integrations are connected to 10 banks, which has dramatically increased volumes moving between mobile money and banking systems. Whereas a few years ago flows into the mobile money ecosystem vastly outweighed those going out, today they are more balanced: a bank can now help large numbers of MSMEs with mobile money accounts to move money out of the system, for example, to save or pay suppliers.

Interoperability continues to see strong growth as the industry matures into a multi-sided financial system offering a suite of use cases and products.

However, innovative solutions will be needed to integrate mobile money providers with the broader financial ecosystem. There are an increasing number of options around central switching infrastructure for the industry to enable nascent use cases to scale, including merchant payments and efficient connections to domestic and international financial system players.

However, much of the existing bank-focused infrastructure is not optimal for mobile money. In an effort to solve this, MTN Group and Orange Group launched Mowali in 2018. Mowali aims to act as an open industry utility to facilitate interoperability and provide the optimal technical, commercial and governance environments in which the mobile money industry can continue to thrive.

Expanding regional interoperability through Mowali

mowali

In 2018, with the support of the GSMA, MTN and Orange launched a joint venture to enable interoperable payments across Africa. Known as Mowali ('mobile wallet interoperability'), the service is open to any mobile money provider in Africa, as well as to banks, money transfer operators and other financial services providers.

Built on top of the Bill & Melinda Gates Foundation's open-source platform Mojaloop, Mowali offers an industry-owned and industry-governed payments hub that is technically and commercially designed specifically for mobile money. With its pan-African footprint allowing for economies of scale and a cost-recovery commercial model, Mowali has the potential to drive down the prices of services offered to lower-income customers. Additionally, by creating a common mobile money acceptance brand, and with the potential to provide one connection for all mobile money providers, banks, merchants and other digital service financial providers to reach the 396 million mobile money accounts across Africa, Mowali aims to lay the foundation for the future of the mobile money ecosystem.

As of early 2019, Mowali will be available to all MTN and Orange mobile money customers in 22 of Sub-Saharan Africa's 46 markets, with more mobile money providers expected to join in the next year.

The dramatic rise in smartphone adoption

The disruptive nature of smartphones has already transformed service models in the communications, entertainment and transport industries, and competition is now poised to disrupt the traditional banking and payments industry. Smartphone adoption is increasing dramatically in emerging markets, especially where mobile operators are investing heavily in connectivity and vendors are pushing affordable devices to market.[22]

In several markets where mobile money has scaled, users are more likely to own a smartphone than a feature/basic phone.[23] Global smartphone adoption was 60 per cent in 2018 and is predicted to increase to over 79 per cent by 2025. Dramatic uptake is also expected in:

- **Emerging markets:** Currently at 56%, set to rise to 78% by 2025
- **South Asia:** 48% by end of 2018, set to rise to 75% by 2025
- **Sub-Saharan Africa:** 39% by end of 2018, set to rise to 66% by 2025

For mobile money providers, smartphones unlock access to a broader customer base and allow them to offer an enhanced user experience and a wider range of financial products and services. To capture the smartphone opportunity, more and more providers are offering apps to perform transactions. The total number of customers using a smartphone app to transact has more than doubled (2.6 times) year on year.

In Asia, Latin America and Middle East and North Africa, one in three mobile money providers that offer a smartphone app are seeing 20 per cent or more of their active customer base transacting through the app, and a growing number of deployments in Asia and Latin America are seeing over half of transactions performed through smartphone apps.

These deployments also have higher average revenue per user (ARPU) as smartphone customers typically transact twice as much as customers using traditional feature phones and register higher ticket sizes (owing to typically higher incomes) — an attractive target segment. The story is very different in Africa, where over 90 per cent of mobile money transactions are still driven by USSD. However, with smartphones and data-enabled devices becoming more affordable and equipped with longer battery life, growth is likely to accelerate.

The total number of customers using a smartphone app to transact has more than doubled (2.6 times) year on year.

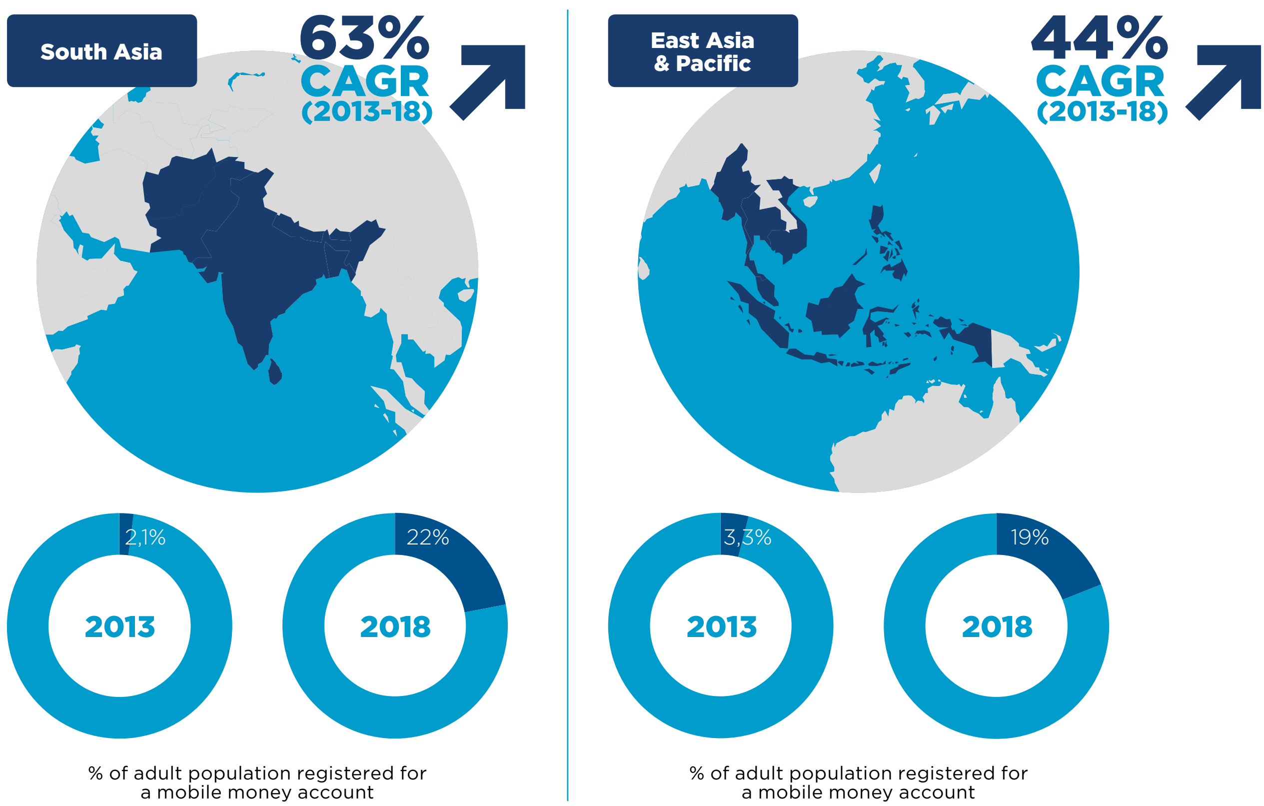
22. Baah. B and Naghavi, N. (2018). Beyond the basics: How smartphones will drive future opportunities for the mobile money industry. GSMA.
23. GSMA Intelligence consumer survey

2 Diversification of the financial services ecosystem

2018 saw many non-financial players diversify and invest in mobile-based payment businesses in order to gain market access in the payments space and then leverage their experience to strengthen portfolio companies. While this underscores the commercial potential of mobile money, not to mention the social benefits, it is also a sign of growing competition.

In recent years, the share of the combined adult population in Asia with a mobile money account has increased rapidly. South Asia has seen the fastest growth in the region — a compound annual growth rate (CAGR) of 63 per cent between 2013 and 2018 — which today means that more than a fifth of the population has a mobile money account (Figure 6). Meanwhile, in Southeast Asia, account registration rates among the main ASEAN[24] economies have grown at a CAGR of 44 per cent, resulting in a similar adult population penetration rate of close to 20 per cent.

Figure 6. Mobile money account registration growth in Asia



While the growth in registered accounts in Asia is remarkable, rates of account ownership and usage are still low in many countries, providing a very real and sizeable opportunity for MNOs and other financial services providers. Although competition and consolidation in Asia are increasing, the addressable market is by all accounts substantial enough to accommodate both MNO and non-MNO players.

24. ASEAN stands for the Association for the Southeast Asian Nations. Cambodia, Indonesia, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam (not included: Laos and Brunei).

The looming opportunity for Asian mobile money providers

Asia's financial ecosystem sets itself apart by the role played by non-banks, which constitute a significantly different set of players than in markets in Sub-Saharan Africa or Middle East and North Africa, for example. While large MNO groups still dominate Africa's mobile money ecosystem, providing an expanding range of innovative digital solutions to more urban and tech-savvy customers, the competitive landscape in Asia has changed substantially. In addition to mobile money providers, the Asian market also hosts a sizeable number of fintechs such as Alipay and tech giants such as Tencent.

These players have raised significant capital in the last few years, which has allowed them to connect with a wide variety of partners and develop many customer-centric use cases, including transportation and food, medical and financial services. Alipay alone has partnered with more than 200 financial institutions and offers over 2,500 mutual investment funds and is integrated with over 100,000 merchants outside China.

While mobile money providers in Asia are connected to more online merchants than the average global mobile money service, deployments have fewer integrations with companies leveraging mobile money for bill and bulk payments. On average, Asian mobile money providers are connected to 33 billers, less than a third of the global average of 102, while the difference in bulk payments is even greater (69 versus 237). This presents a significant and largely untapped opportunity for Asian mobile money providers to expand their service offering. The disparity in bulk disbursements and bill payments is particularly noteworthy as these services have historically been the main drivers behind the digitisation of mobile money ecosystems in other markets.

With this looming opportunity in Asia, deployments in the region stand to benefit tremendously from increasing their investments in mobile money and concentrating on expanding integrations and use cases.

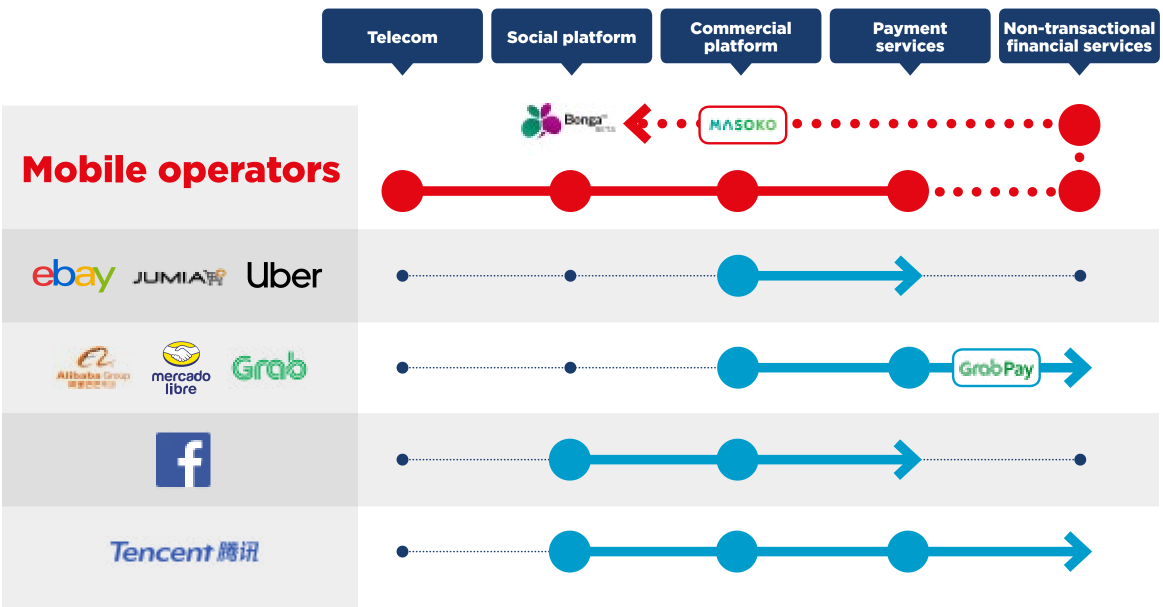
The evolving financial services ecosystem

Ant Financial. In Southeast Asia, Ant Financial has announced a string of acquisitions, including Paytm in India, Mynt in the Philippines and bKash in Bangladesh. It has also entered into a strategic partnership with MoneyGram, and in Kenya partnered with Equitel and Red Dot Payments to serve Chinese tourists in that market. While these investments provide new market access to global organisations, mobile-based payment businesses also benefit. For example, bKash, a mobile money provider in Bangladesh, plans to leverage Ant Financial's investment to add capabilities around product offering and technological enhancements like artificial intelligence (AI).

GrabPay and Go-Pay. Over-the-top (OTT) players are expanding rapidly as international and regional competition stiffens. Singapore-based ride-hailing giant, Grab, first expanded into mobile payment services in 2017 with the launch of GrabPay. The mobile wallet service is now available in major Southeast Asian markets such as Indonesia, Malaysia, the Philippines and Vietnam, and in early 2018, the company purchased all of Uber's Southeast Asian operations. Grab's rapid expansion should be seen in the context of another ride-hailing service, Go-Jek in Indonesia, which has launched a mobile wallet, Go-Pay, and announced a $500 million regional expansion plan in 2018. Grab's most recent move in digital payments is partnering with MasterCard to offer its 110 million+ registered users a virtual prepaid card to enable online payments and the possibility to cash-out.

MercadoLibre. In Latin America, Argentina-based MercadoLibre has become the most popular e-commerce platform in the region. As of 2017, the service had 212 million registered users across 18 countries in the Americas. With its marketplace, Mercado Pago, at its centre, MercadoLibre has expanded into offering a range of payment and financial services, such as credit and wealth management, serving both MSMEs and individual users.

Figure 7. New business models emerging in the global financial services ecosystem (illustrative)



Source: GSMA / Sofrecom

3 Increasingly complex regulation

Enabling regulation has a tangible influence on the adoption and use of mobile money services. The most successful providers today overwhelmingly operate in markets where regulation is enabling. Conversely, restrictive regulatory frameworks can stifle investment, limit the roll out of new services and raise costs for consumers, all of which can negatively affect adoption and activity rates. In several cases, 2018 regulatory developments appeared encouraging at first glance, yet their layers of complexity reveal increasingly restrictive requirements.

The Bangladeshi government, for example, released a new regulatory framework in July 2018[25] that allows non-banks, such as NGOs, investment and fintech companies, to participate as equity partners (maximum 49 per cent) with scheduled commercial banks. Although a welcome concession, MNOs are specifically prohibited from partnering with scheduled commercial banks to offer mobile financial services. Their role is limited to the distribution of mobile money services as agents or super agents.

Regulatory change also came to Indonesia in June 2018, which despite increasing transaction limits for deposits by unregistered users, has so far not made the market any more enabling for mobile money providers. Regulations have been tightened with new provisions for IDR 3 billion minimum capital, limits on foreign shareholding (49 per cent) and a mandatory requirement to link all foreign remittance providers through the national payments gateway.

Globally, the mobile money industry encountered developments in five main areas of regulation in 2018, all of which affect the provision of mobile money services: taxation; Know Your Customer (KYC) requirements; cross-border remittances; national financial inclusion strategies; and data regulation. Each of these areas are explored in more detail below.

25. Bangladesh Mobile Financial Services Regulations (2018).

Taxation

The mobile industry is already one of the highest taxed in Sub-Saharan Africa. Throughout the region, mobile money providers encounter three layers of taxation: general taxes, such as value-added taxes; mobile sector-specific taxes, such as excise duties on airtime usage, and mobile money taxes.[26] In 2018, industry concerns intensified regarding the introduction of taxes on mobile money transactions throughout the region and beyond. Affected markets include Uganda, Kenya, Zimbabwe and Gabon.

Our analysis has shown that taxing mobile money does little to support public finances and to advance the many positive contributions of mobile money.[27] Moreover, excessive taxation undermines prospective investment into mobile money, at a time when mobile operators already face considerable cost pressures to enhance service quality, expand networks and meet new regulatory requirements. As an alternative to excessive taxation, governments should consider supporting the growth of mobile money services by digitising the payment of fees, rates, taxes and levies due from taxpayers.

Mobile money taxation in Uganda

Mobile money is an accelerator for payments and money transfers in Uganda, with over 30 per cent of the population actively using the service and over 200,000 jobs directly created by the mobile money industry. As a result, the introduction of a one per cent tax on mobile money deposits, withdrawals, transfers and payments by the Ugandan government in July 2018 made mobile money transactions more expensive for a significant number of users. While the introduction of a 10 per cent excise duty in 2013 only affected mobile money transaction fees, this new initiative aims to tax both the transaction fee and the transaction value.

The new tax had an almost immediate negative effect: the value of P2P transactions declined by 50 per cent within two months of implementation while the value of all transactions dropped by around 25 per cent. Around 100,000 agents saw their earnings decline by 35 to 40 per cent, and around 30,000 agents went out of business completely. Customers have resorted to using cash or agency banking while others are transferring smaller amounts via mobile money. This tax will also have an impact on mobile money account-to-bank transfers that enable commercial banks to capture around US $19 million in deposits, which stand to decline. Also at risk are mobile money use cases: 60 per cent of electricity and national water payments are made via mobile money; around 5,000 savings and credit cooperatives collect deposits and disburse microloans using mobile money; 12,000 to 15,000 farmers receive daily microloans via mobile money; and 40,000 to 50,000 transfers are made to refugees every month.

By attempting to introduce a tax-boosting measure to meet fiscal targets for 2018–19, the Ugandan government has put the existing tax base at risk. The government has since attempted to redress the issue by reducing the tax to 0.5 per cent of the transaction value of withdrawals only. However, rather than tax mobile money transaction values directly, the government could tax mobile money in a less punitive manner or, even better, leverage mobile money to increase collection of existing taxes in a digital and efficient way.

26. Muthiora, B. and Raithatha, R. (2017). "Rethinking mobile money taxation." Mobile for Development Blog. GSMA.
27. Ibid

Know Your Customer (KYC) requirements

The ability to conduct KYC efficiently and effectively is key to expanding access to mobile money. However, the mobile money industry's capacity to scale services is challenged by onerous KYC requirements. To address these challenges, providers are taking two approaches:

- **Simplifying customer onboarding:** In markets without ubiquitous identification systems, mobile money providers struggle to onboard prospective customers who are unable to provide sufficient proof of identity. While ensuring universal ID coverage remains a long-term endeavour, a careful relaxation of regulatory restrictions in the short term can bring more people into the financial system without substantially increasing risks; for example, by using SIM registration data for mobile money account opening. Pakistan, Ghana, Sri Lanka and Haiti are all examples of countries that permit the use of SIM registration data for mobile money KYC.
- **Use of digital IDs to enable electronic KYC (e-KYC):** To meet the needs of an increasingly digitised user base, mobile money providers — and the broader financial services industry — are looking to innovative technologies for ID verification, such as queryable digital ID systems and biometric authenticators. Some countries, such as Kenya, have ID systems that already offer e-KYC, and several others are well positioned to offer such services should governments embrace the opportunity.[28]

Cross-border remittances

Mobile money remittances can be a lifeline and vital source of income for poor communities in developing countries. The total value of mobile money-enabled international remittances processed in 2018 was $4.3 billion. Results from a study conducted in August 2017 showed that mobile money-enabled remittance services are available across 184 unique corridors, and there is growing awareness among governments, regulators and the industry itself that mobile money can lower the costs of sending international remittances.

The average cost of sending $200 via mobile money is 1.7 per cent, a reduction of nearly 40 per cent since 2016.[29] Recognising the role of mobile money in lowering the costs of sending remittances, there has been a greater push for interregional operating models to ensure more people can benefit from the cost savings. In Sub-Saharan Africa, regional economic communities SADC, EAC and UEMOA are leveraging the ease of movement of people and trade by creating integrated payments systems.

This progress in mobile money-enabled international remittances has been facilitated in part by regulators' willingness to allow market entry for non-traditional providers. However, in many markets, regulation remains a barrier to further expansion. These challenges are different from country to country, ranging from the acquisition of a license that allows mobile money to be used for international remittances, to more complex issues that can hamper the opening of new corridors such as data localisation requirements, or differences between international and domestic KYC requirements.

Against this backdrop, establishing an open and level playing field and encouraging competition through conducive regulation will be crucial in unlocking the full potential of mobile money for international remittances.

28. Kipkemboi, K., Pisa, M and Woodsome, J. (2019). Overcoming the Know Your Customer hurdle: Innovative solutions for the mobile money sector. GSMA
29. GSMA (2017). Working Paper: Guidelines on International Remittances through Mobile Money.

National financial inclusion strategies

Governments across developing economies have initiated policy reforms to improve the quality, access and availability of financial services through national financial inclusion strategies (NFIS). An NFIS sets milestones and defines roadmaps for public- and private-sector stakeholders to achieve financial inclusion targets. As of December 2018, 36 countries have adopted an NFIS, and Jordan, Palestine and Russia are planning to launch their strategies within the year. A good NFIS is regularly reviewed against defined objectives and updated within agreed timelines, as Tanzania demonstrated in 2018.[30] Other qualities of an effective NFIS include technology neutrality, gender inclusion and proportionate regulation.

Data regulation

For mobile money providers, customer data provides an important opportunity to diversify and improve service offerings, bridge the financial inclusion gap and ultimately boost profits. At the same time, these developments inevitably increase the risks of data breaches and reputational damage, so maintaining consumer confidence in mobile money services is vital to leverage new commercial opportunities and safeguard broader financial inclusion efforts.

Mobile money providers will need to consider recent changes in data protection regulation that may have an impact on the provision of mobile money services, particularly relating to data localisation, data security, the lawful basis for data processing and data sharing. For example, data localisation requirements stipulate that customers' personal data collected within a particular jurisdiction must be stored or processed within that jurisdiction's boundaries, which may result in prohibitive costs for providers, disincentivising market entry and compromising innovation. For regulators, the challenge of strengthening data protection without stifling innovation requires collaboration with industry players to strike the right balance.

30. The Alliance for Financial Inclusion (2018). Tanzania: National Financial Inclusion Framework 2018-2022.

The Mobile Money Regulatory Index

The fast-evolving regulatory landscape calls for a more nuanced evaluation of regulatory frameworks, which extends beyond a binary categorisation of regulation as enabling or non-enabling. Recognising this, over the last year, the GSMA has studied regulatory frameworks in more than 80 countries and developed a tool, the Mobile Money Regulatory Index, to assess the effectiveness of regulatory frameworks in creating enabling environments for mobile money operations (Figure 8). The Index provides regulators and other stakeholders with insights into improving their regulatory environment and ultimately expanding mobile money services. Figure 8 provides an example of a country's Regulatory Index Score and composite dimension scores.

Figure 8. The Mobile Money Regulatory Index

Pakistan

Regulatory Index Score:

80.65

Authorisation:	**75.53**
Consumer Protection	**72.5**
Transaction Limits:	**84.1**
KYC:	**70**
Agent Network:	**93.33**
Infrastructure and Investment environment:	**100**

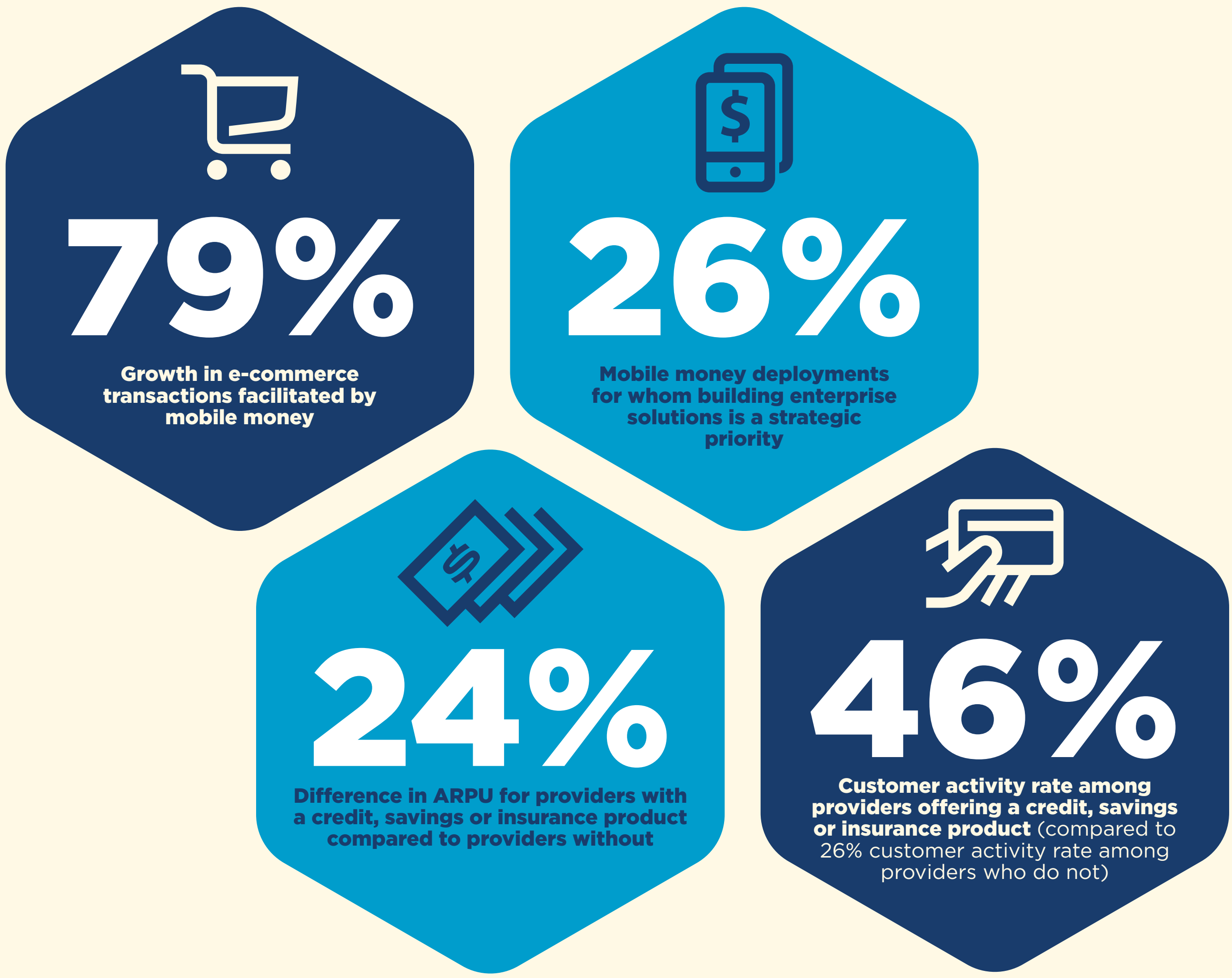
The Index comprises six dimensions and 27 indicators weighted by impact. These six dimensions, or enablers, have the biggest influence on the development of scalable and responsible mobile money businesses that can sustainably reach the underserved and foster digital financial inclusion. They include: Authorisation, KYC, Consumer Protection, Agent Networks, Transaction Limits, and Investment and Infrastructure. The Index also provides a foundation for public- and private-sector dialogue on reforms that can promote market growth. For instance, data on transaction limits could be used to set appropriate transaction limits for entry-level accounts based on global benchmarks extracted from the Index.

4 Expansion of the mobile money value proposition

Mobile money providers responding to our Global Adoption Survey reported steady year-on-year revenue growth (23.9 per cent on average) and profitability (30 per cent of providers reported EBITDA margins of over 25 per cent). However, with close to 80 per cent of providers reporting that most of their revenues are driven by customer fees, they are increasingly seeking to strengthen their value proposition to meet the evolving needs of individuals and small businesses.

This has moved us towards a significant evolution of the mobile money business model: a 'payments as a platform' approach that connects consumers with third-party services across a range of industries. Recognising the compelling opportunity to increase and diversify revenue streams and reach new and broader customer bases, providers are seeking to develop a diversified, multi-sided model of adjacent services, enterprise solutions and personalised services.

Figure 9. The expanding mobile money proposition



Enterprise solutions

While only a few mobile money providers have developed a customised offering for businesses, they are well placed to serve MSMEs thanks to their strong presence on the ground. Despite being tailored for individual needs, GSMA research in two Sub-Saharan African countries has found that approximately 80 per cent of MSMEs have a mobile money account and, of these, 83 per cent were using it for business needs. MSMEs reported performing transactions more frequently than individual mobile money users, with over three in ten receiving payments several times a day for a variety of use cases, including receiving customer payments and paying utility bills and suppliers.

E-commerce

More and more customers are coming online. In just four years, global mobile internet penetration has risen sharply, from 29 per cent in 2013 to 43 per cent in 2017, and is projected to increase to 61 per cent by 2025. In Sub-Saharan Africa, this has risen even faster, doubling in the last five years to 21 per cent. An additional 280 million subscribers are estimated to come online between now and 2025. South Asia has seen similar growth, with subscribers doubling over the last five years and another 470 million users expected by 2025.

In 2018, e-commerce transactions facilitated by mobile money grew 79 per cent in value. This strong growth has meant more integrations are happening directly between operators and providers or through gateways. Operators are also looking to launch their own marketplaces, such as Safaricom with Masoko (see below).

Masoko by Safaricom

Launched in November 2017, Masoko became the first e-commerce platform in Africa to be launched independently by an MNO. The platform has allowed Safaricom to leverage the reputation and trust of its highly successful mobile money service, M-Pesa. At a time when MNOs around the world are seeking to digitise their operations, Safaricom has put its focus on e-commerce, with Masoko now an integral part of its plan to sustain future growth.

As a mobile money provider, Safaricom brings several unique strengths to the e-commerce domain. For example, while Safaricom offers several payment methods other than M-Pesa (such as VISA and MasterCard), Masoko does not offer the payment option of cash on delivery. As a payment service provider itself, Safaricom can guarantee payment for an order the moment it is placed — a core added value. Another strength is its unique data capabilities and insights, which allows it to offer customers a more relevant and tailored experience online.

As of November 2018, Masoko had 120 (pre-approved) active vendors and offered over 30,000 products or stock-keeping units (enhanced by the recently launched Masoko Fresh, a new part of the portal that offers delivery of fruits, vegetables and dairy products). As in other developing countries, Safaricom's main e-commerce challenge has been logistics. The MNO is addressing this by using its sizeable agent network (160,000+) as delivery and collection points, as well as multiple delivery partners. This has been a success; Masoko is now delivering products to 45 of 47 counties in Kenya.

Credit, savings and insurance

While financial account ownership has seen remarkable growth in recent years, little progress has been made in access to savings, credit and insurance services. By offering adjacent services such as credit, savings, insurance and wealth management, mobile money providers better serve the varied needs of their customers while reducing their reliance on revenues from customer fees.

In 2018, providers increasingly embraced this opportunity. Currently, 23 per cent of providers offer a credit service through partnership models with banks or credit providers, and 41 per cent are planning to launch one in 2019. Several of the deployments that launched a digital credit offering in the last 18 months saw an average of 11 per cent of their registered customer base take out digital credit loans.

Our survey also showed a healthy appetite among mobile money providers to offer insurance; at least 45 per cent of providers currently offer an insurance service or are planning to launch one in the next 12 months. The platform-based approach is uniquely positioned to facilitate this, as it involves a shift from one-on-one negotiations and one-off integrations to a platform that is open to all potential third parties that pass the required checks. As a result, smaller financial institutions and microfinance institutions (MFIs) with a more niche focus will also be able to offer their services to mobile money users.

Providers stand to benefit from expanding their value proposition to adjacent services in two key respects. First, mobile money providers that also offer savings, credit or insurance products have on average 24 per cent higher ARPU than providers that do not offer any of these products. Second, the same providers are also likely to have a higher activity rate (45.7 per cent) than those who do not (27.0 per cent). The synergies created by offering these products are just as significant as the increased direct revenue opportunities; these new services will help providers acquire new customers, reduce customer churn and cross-sell services.

Mobile money providers already possess the necessary skills and resources to move towards a platform-based model. However, to transition fully and position themselves strategically for simple integrations and quick access to customers, providers will need to address several key organisational and technological challenges.[31] These include empowering third parties to directly embed and implement their catalogue of services through mobile money apps, and leveraging their datasets effectively and responsibly to glean insights from new usage patterns.

31. Nika Naghavi (2018). "The mobile money industry's transition to a platform-based business model." Mobile for Development Blog. GSMA.

Conclusion

Conclusion

2018 saw the industry shift its focus to meet evolving customer needs, with more industry players embracing a platform-based approach connecting consumers with third party services across diverse industries.

The enduring strength of the agent network, an increased focus on interoperability and widespread access to digital tools such as smartphones will help to further ease this transition. The merchant network will also become increasingly important as mobile money providers connect customers to MSMEs, both retail and online. Smartphones will be a key enabler of this model as they provide an enhanced user experience and open access to a wider range of financial products and services through third-party apps. In countries where feature phones are still the primary channel for accessing mobile money, however, providers will need to determine how to offer the core benefits of the platform model to this enduring customer segment.

As in previous years, regulation designed to enable low-cost services for the financially excluded has proven essential to the success of mobile money. There were some encouraging trends in financial services regulation in 2018 as national financial inclusion strategies gained momentum and collaborative sub-regional initiatives worked to create integrated payments systems. However, two major regulatory risks to financial inclusion emerged in 2018: higher taxation of the mobile industry across Sub-Saharan Africa and the global emergence of potentially restrictive data protection requirements. Ultimately, regulation should help to build consumer confidence in engaging with digital services without creating significant additional costs for service providers. Communication and collaboration between mobile money providers and regulators will be vital to strike he right balance between service provision and cost.

As the 'payments as a platform' approach takes flight, providers will be able to glean insights from new usage patterns and data, tap into new revenue sources and concentrate on building a robust platform and innovative ecosystem. It will be critical that commercial use of this data is balanced with concerns about data privacy, data security, fraud prevention, regulatory compliance and consumer trust. For any new product or service, providers should establish clear and open processes and rules for data security, storage, consent, minimisation, anonymisation and sharing.

Improving access to credit for the underserved also raises questions about responsible lending, which will need to be addressed. Namely, how can lenders ensure that more widespread access to credit does not lead to an increase in over-indebtedness? And how can financial education, by lenders, mobile money providers, regulatory authorities and the wider ecosystem, help to address this?

Laying the groundwork for the financial services ecosystem to grow around the mobile money platform is essential, but the 'payments as a platform' approach is not only about incorporating more partners and third parties. It is also about deepening engagement with individuals and businesses through a smooth end-to-end experience that ultimately encourages greater uptake and use of mobile financial services moving us closer toward the end goal of universal financial inclusion.

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