



State of the Industry Report on Mobile Money 2019



The GSMA represents the interests of mobile operators worldwide, uniting more than 750 operators with almost 400 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.

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

Follow the GSMA on Twitter: [@GSMA](https://twitter.com/GSMA)

Lead author:

Nika Naghavi

Data & Insights Director, GSMA Mobile Money

This report was written with the support of the wider Mobile Money and Mobile for Development team. The quantitative assessment of this report was carried out by a team under the supervision of Simon K. Andersson Manjang that comprised of Julian Hoffmann, Kavita Tailor and Tapiwa Jakachira.

For more content,
visit gsma.com/sotir.



Mobile Money

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: [@GSMAMobileMoney](https://twitter.com/GSMAMobileMoney)

Email: mobilemoney@gsma.com

THE MOBILE MONEY PROGRAMME IS SUPPORTED BY THE BILL & MELINDA GATES FOUNDATION AND FLOURISH VENTURES.

BILL & MELINDA
GATES *foundation*



Foreword

2019 was a momentous year for the mobile money industry. With over a billion registered accounts and close to \$2 billion in daily transactions, mobile money is evolving like never before. Originally a product for a few select markets, mobile money is now a global phenomenon, recording astonishing growth in emerging markets and reaching a broad range of customers.

Thanks to the dramatic rise in internet and smartphone adoption, increased interoperability and new business models, customers can now choose from a suite of tailored products. For the first time in 2019, digital transactions represented the majority of mobile money flows, and more value is circulating in the mobile money system than exiting. For customers, this marks a shift away from cash towards digital payments — for school fees, e-commerce, international remittances, savings, credit, pay-as-you-go utilities and more. For the industry, it is evidence that the ‘payments as a platform’ model — a strategic shift by the industry to encourage more value to remain digital and to diversify revenue models— is paying off.

As digital products reach the hands of more and more low-income users, it is vital to ensure that they are user-centric, relevant and meet real customer needs. This is why the GSMA launched the Inclusive Tech Lab in 2019, a testing ground for transformative digital solutions. Through the Lab, new products will enter the market that unlock access to financial services, provide digital identities for unregistered populations and offer innovative healthcare, education and business solutions.

Economies are becoming increasingly dependent on digital technology, bringing to light the central role of mobile money in

harnessing digital finance for sustainable development. Mobile money is accelerating progress towards the Sustainable Development Goals and is contributing to the economic empowerment of individuals and communities including marginalised groups and businesses. For instance, 60 per cent of surveyed mobile money providers reported partnering with a humanitarian organisation to deliver mobile money-enabled cash voucher assistance to over 2.7 million unique mobile money accounts. Mobile money is also a key driver of socio-economic growth by creating employment, driving business productivity and entrepreneurship, helping to formalise the economy, and providing stability during economic downturns.

1.7 billion people remain financially excluded, but the collective strength of the industry could ensure that everyone can be part of the new digital economy. Collaboration will be key to taking the mobile money industry to the next level, while keeping the needs of the underserved at its core. We are delighted to share the 2019 State of the Industry Report on Mobile Money, which highlights the transformative ability of mobile money to generate broader benefits for the industry and society. The report is prepared by the GSMA’s Mobile Money programme in collaboration with the mobile money industry, and produced with the generous support of the Bill & Melinda Gates Foundation and Flourish.



Mats Granryd
Director General, GSMA



Contents

EXECUTIVE SUMMARY	4
MOBILE MONEY IN 2019	7
REGIONAL GROWTH IN 2019	8
BEYOND ONE BILLION MOBILE MONEY ACCOUNTS	
A STEP TOWARDS A DIGITAL FUTURE FOR ALL	10
COMMERCIAL SUSTAINABILITY AND THE SHIFT TO A ‘PAYMENTS AS A PLATFORM’ MODEL	20
REGULATORY AND POLICY TRENDS	38
THE FOUNDATION FOR IMPACTFUL SERVICES	44
CONCLUSION	55
APPENDIX	57



Executive Summary

Executive Summary

2019 marked a major milestone for the mobile money industry: the number of registered mobile money accounts surpassed one billion.

Reaching the one billion mark is a tremendous achievement for an industry that is just over a decade old. The mobile money industry of today has a host of seasoned providers with a broad set of operational capabilities, a full suite of products and a global reach. With 290 live services in 95 countries and 372 million active accounts, mobile money is entering the mainstream and becoming the path to financial inclusion in most low-income countries.

What is not captured in this figure is the empowerment that comes with owning a mobile money account. More women are using financial services, low-income households are accessing essential utility services and smallholder farmers are

getting paid more quickly and conveniently. Meanwhile, millions of migrants and their families are experiencing the life-changing benefits of faster, safer and cheaper international remittances and humanitarian cash assistance is being delivered more thoughtfully to those in crisis situations. All of this is unlocking new solutions to some of the world's most intractable development challenges and highlighting the catalytic role that mobile money is playing in achieving the Sustainable Development Goals (SDGs)¹

This year's State of the Industry Report looks at what one billion registered accounts signify for the mobile money industry, mobile money users and the future of the mobile money ecosystem.

The report looks at some of the biggest trends in 2019:

A growing number of providers are becoming commercially sustainable

Not all mobile money deployments are profitable, but in 2019 a growing number of mobile money services crossed the threshold to become commercially sustainable: 60 per cent of providers reported a positive EBITDA.² Direct revenues from mobile money are supporting investment in innovative products and services, network expansion, and healthy and sustainable agent commissions. With trusted brands, widespread distribution and secure channel access, more and more providers are delivering services sustainably and at scale.

The industry continues to invest in distribution networks and sustainable agent income

The mobile money industry has created opportunities for entrepreneurs in emerging

markets to become agents. The number of agent outlets has almost tripled over the past five years, and the reach of a mobile money agent is now seven times that of ATMs and 20 times that of bank branches. In rural and hard-to-reach areas, mobile money agents have had a transformative impact on financial inclusion. Meanwhile, agents are seeing their monthly incomes rise substantially with commissions that are not taking away from investment in other areas of the mobile money business.

Providers are shifting to a 'payments as a platform' model

In last year's State of the Industry report, we charted the emergence of a 'payments as a platform' model — a strategic shift by the industry to encourage more value to remain digital and to diversify revenue models by unlocking more targeted services for individuals, businesses and communities.

1. Lopez, M. (2019). *Harnessing the power of mobile money to achieve the Sustainable Development Goals*. GSMA.
2. EBITDA: Earnings before interest, tax, depreciation and amortization.



2019 saw a significant drop in reliance on revenue from customer fees alongside rising revenue from business fees. This is a clear indication that providers are focusing more on expanding the digital ecosystem and adjacent services like mobile money-enabled credit, insurance and savings.

The digitisation of payments has reached new heights

Over the past five years, there has been a gradual shift from cash to digital payments, but for the first time in 2019, digital transactions accounted for the majority of mobile money flows. The ratio of digital to cash-based transactions has increased by nearly 50 per cent since 2017 as a larger proportion of money enters and leaves the system in digital form. This is a signal that providers have taken major steps to ensure digital transactions become a part of their customers' everyday lives.

More value is circulating in the mobile money system than exiting

Another industry first - the total value in circulation (P2P and merchant payments) reached \$22 billion in December 2019, more than doubling over the past two years and significantly surpassing the total value of outgoing transactions (\$18 billion). The industry has clearly zeroed in on what keeps value circulating. For example, by creating more compelling value propositions for MSMEs with business management tools like customer analytics and inventory management, and offering credit lines to agents and merchants.

The industry is increasingly interoperable and integrated

Interoperability with banks and account-to-account (A2A) interoperability is meeting the needs of entirely new customer segments, including traditionally underserved and cash-reliant customers. Mobile money-enabled international remittances have flourished as the industry has become more integrated with international financial system players. Integration via APIs with organisations ranging from government agencies to utility companies, online businesses and local entrepreneurs is also on the rise.

The regulatory landscape is evolving

Regulation that enables low-cost services for the financially excluded has been crucial to the success of mobile money, and there is a clear correlation between high mobile money adoption rates and enabling regulatory environments. However, certain policy interventions, such as sector-specific taxation and data localisation requirements, are putting pressure on the industry and may have long-term negative impacts on financial inclusion gains, innovation and achieving the SDGs.

This report examines these trends and industry initiatives that will push the number of registered accounts well beyond a billion in 2020 and move us a step closer to a digital future for all.

MOBILE MONEY IN 2019

 **Over 1bn**
REGISTERED MOBILE MONEY ACCOUNTS

 **OVER \$1.9bn** processed daily  by the mobile money industry

77 Mobile money deployments have more than **1m** 90-day active accounts  Compared to 27 in 2014

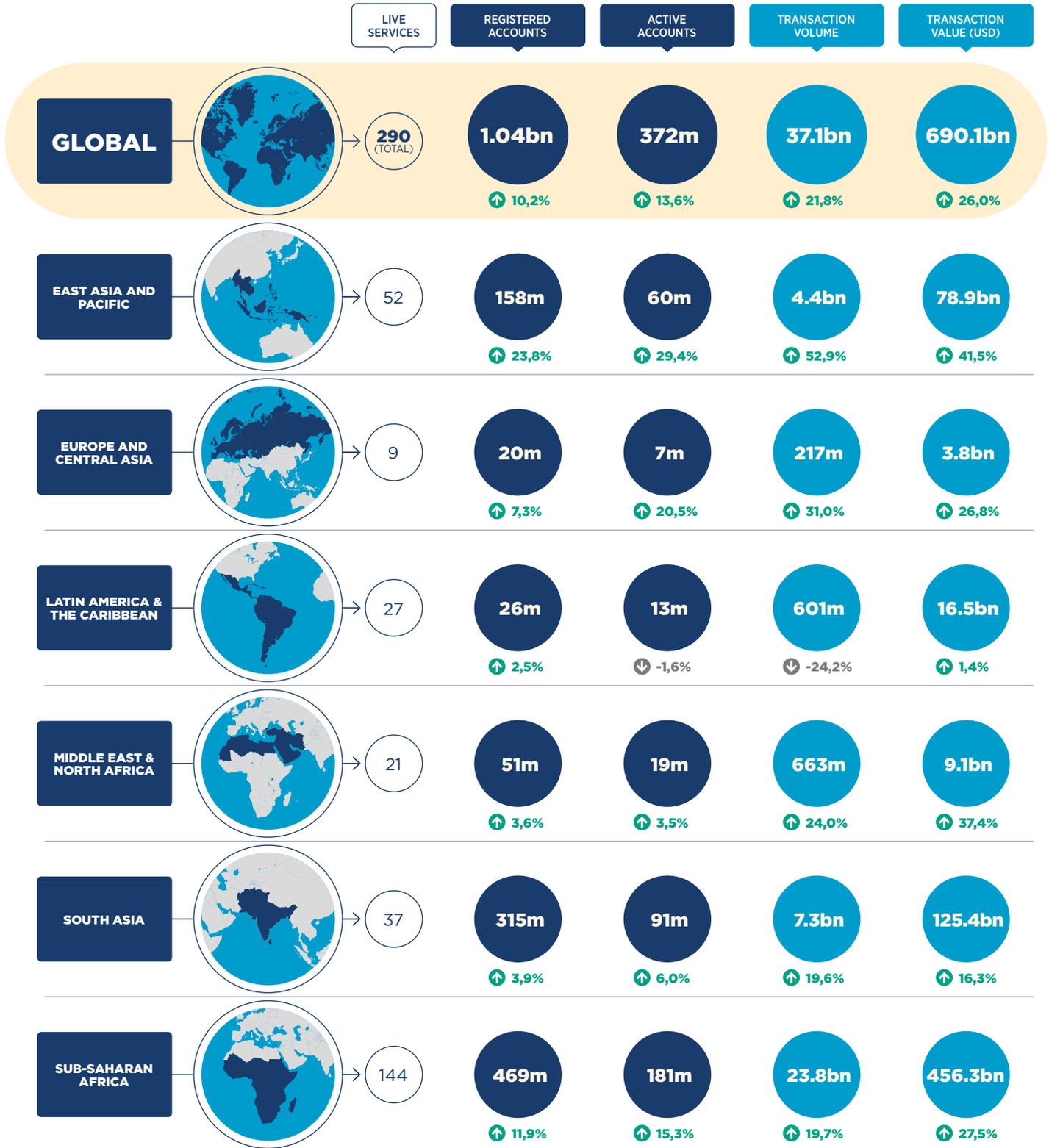
INDUSTRY FIRST
 **57% DIGITAL**
Digital transaction values now exceeding cash-in/out values

INDUSTRY FIRST
 **\$22bn IN CIRCULATION**
More money is circulating than exiting the mobile money system

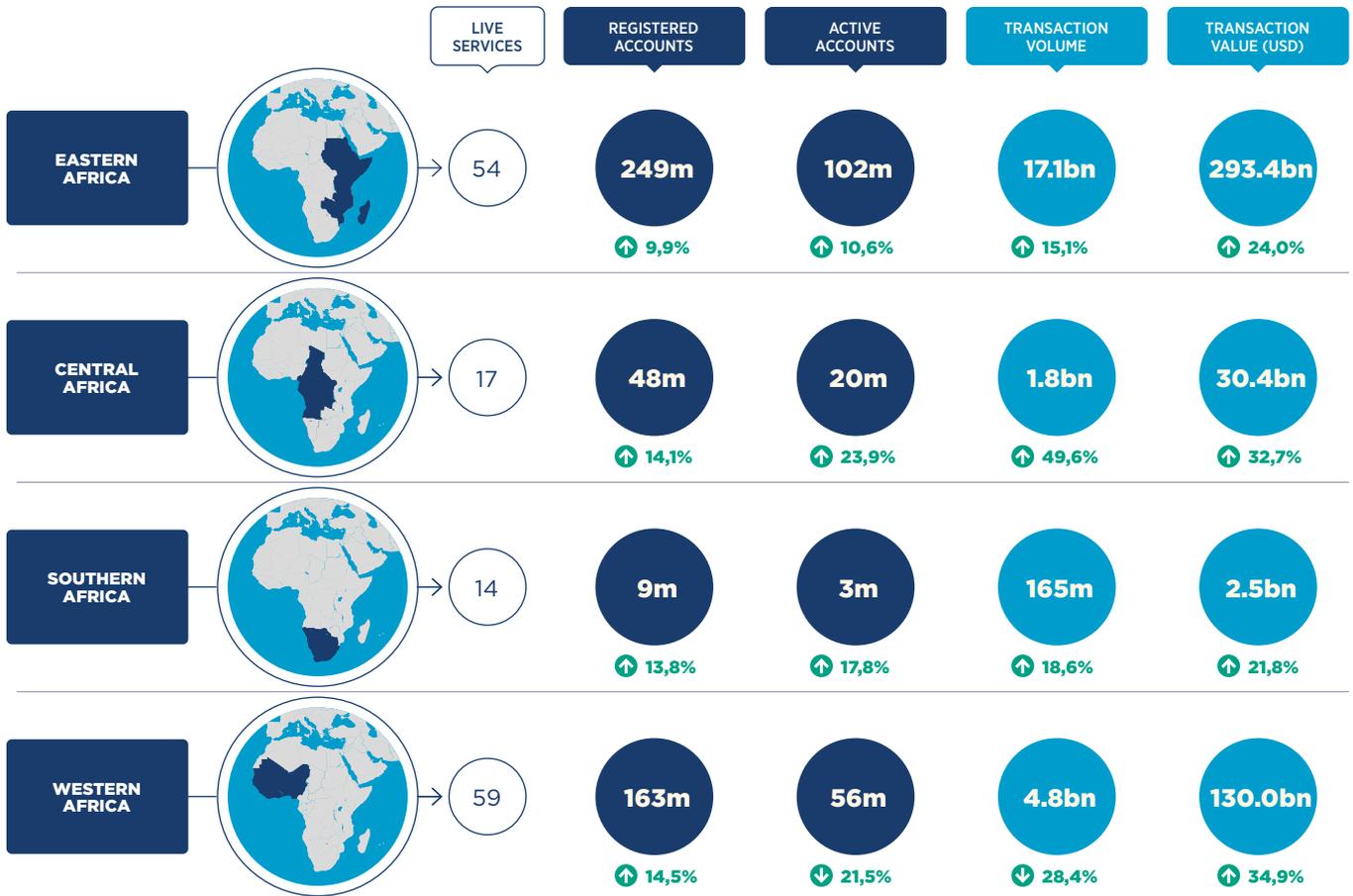
 **290**
MOBILE MONEY DEPLOYMENTS
 **95** ARE LIVE IN COUNTRIES

 **SUB-SAHARAN AFRICA**
 **50m** NEW REGISTERED ACCOUNTS

REGIONAL GROWTH IN 2019



SUB-SAHARAN AFRICA GROWTH IN 2019





**Beyond one billion
mobile money accounts:
a step towards
a digital
future for all**



In 2019, the number of globally registered mobile money accounts surpassed the one billion mark. This is a tremendous achievement, particularly for an industry that is just over a decade old.

It took some of the world's largest companies,³ Facebook and Google,⁴ about the same amount of time to reach similar milestones.⁵ Although opening a mobile money account is very different from opening a Facebook account or using Google search, the mobile money industry stands out among fast-growing digital products and services, as it did not have the same advantages of significant capital injections, a central growth strategy and the ability to weather losses until cash flow was positive.

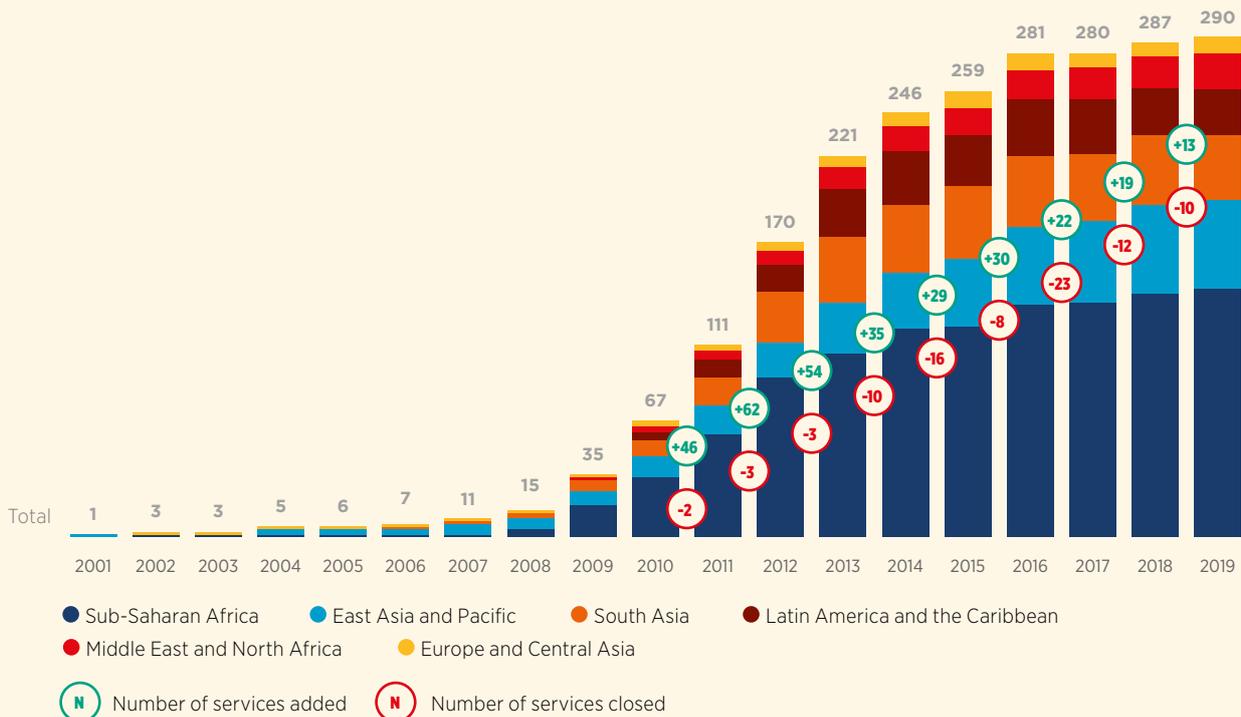
The one billion milestone highlights the catalytic role that mobile technology has played in unlocking financial access for hundreds of millions of people. It also demonstrates that the industry has evolved from its early days to significantly move the dial on customer expectations. The mobile money industry of today has a host of seasoned providers with a broad set of operational capabilities, a full suite of products and a global reach. This section examines global trends, the scale of mobile money adoption and use, and important regional variations and trends.

Growing and globalising

With **290 live services across 95 countries** (see Figure 1), mobile money is entering the mainstream in most markets where access to financial services is low. Mobile money services are **available in 96 per cent of countries where less than a third of the population have an account at a formal financial institution.**

1

Figure 1. Evolution of the global mobile money landscape, 2001 to 2019

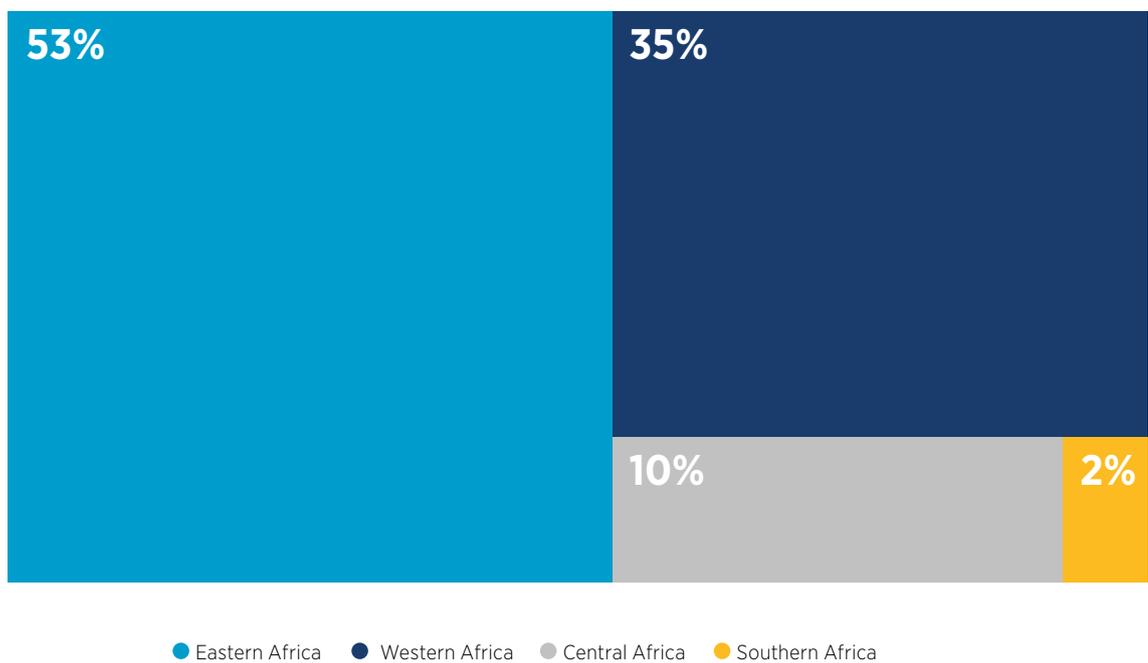


3. By market capitalisation
 4. PwC (2019). [Global top 100 companies by market capitalisation](#)
 5. Google search: 12 years; Facebook: 8.7 years

In 2019, the number of **registered mobile money accounts reached 1.04 billion**. Sub-Saharan Africa is the enduring epicentre of mobile money, adding over 50 million registered accounts in 2019. This was driven by strong growth in Western Africa (21 million new accounts) and Central Africa (six million new

accounts), as well as steady growth in Eastern Africa (22 million new accounts). The GSMA forecasts that account adoption across Sub-Saharan Africa will remain strong and that **the region will surpass the half billion mark by the end of 2020**.

2 **Figure 2.** **Distribution of registered mobile money accounts in Sub-Saharan Africa (December 2019)**



Sub-Saharan Africa was not the only region to register strong growth in 2019. As in 2018, **mobile money adoption in Asia made a significant contribution to global growth**. East Asia and Pacific alone added 30 million accounts in 2019, driven primarily by growth in Southeast Asia where

new entrants and innovation continue to push boundaries. Overall growth in Asia was hampered by the Indian market where several players closed operations due to an increasingly burdensome regulatory and operating environment.⁶ Despite this, South Asia added 14.1 million accounts in 2019.

6. Aditya Birla Payments Bank decided to wind up its operations in March 2019, 17 months after launch. Aditya Birla Payments Bank was the latest iteration of Idea's and Vodafone's M-Pesa service.



India: a battleground for tech giants and payments banks

Digital payments in India are booming and have become a battleground for tech giants like Google Pay, Paytm, PhonePe and, most recently, AmazonPay.⁷ With the backing of US and Chinese investors, the market has become exceptionally competitive and digital payments are expected to reach \$1 trillion in value by 2023.⁸ Fintech players are vying to survive in a market that is bound to consolidate and concentrate as it matures.

Despite a massive account opening effort led by the government since 2014 (through Pradhan Mantri Jan Dhan Yojana, known as PMJDY), India still has the second largest unbanked population in the world (191 million).⁹ Also, a considerable proportion of account owners (48 per cent, 326 million) are inactive.¹⁰ However, these figures are based on the latest Findex report (2017) and might not reflect recent changes in the market including the launch of new payments banks

and new entrants like the tech giants mentioned earlier.

To reach the country's poorest customers, the Reserve Bank of India (RBI) issued guidelines for payments banks in November 2014. The most prominent payments banks in India are currently Paytm, Airtel, and Fino. Despite challenges with the payments bank model (read more about this in the *Regulatory and policy trends* section), Paytm managed to reach profitability and breakeven in 2019.¹¹

India's diversity and sizeable banked and underbanked population (518 million) provide an opportunity for a variety of models and players to thrive. As the market matures, it will be interesting to see how the payments landscape evolves and the innovative models that will be successful in reaching the underserved.

7. While Facebook's WhatsApp Pay has also tried to enter the space, at the time of writing it has fallen short due to data localisation restrictions.

8. Including non-mobile digital payments; Economic Times (15 February 2018). [Digital payments in India to reach \\$1 trillion by 2023: Credit Suisse](#).

9. World Bank Group (2018). [The Global Findex Database 2017](#).

10. People over the age of 15 who have a dormant financial institution account, with no withdrawals in the last year. World Bank Group (2018). [The Global Findex Database 2017](#).

11. Paytm (2019). [We've Turned Profitable on Our Second Anniversary](#), blog.



Agents remain the backbone of the mobile money industry

Ease of access to mobile money is still key to account adoption and deepening financial inclusion, and mobile money agents provide a convenient and trusted way to convert cash to digital value and vice versa. They are also the face of mobile money services around the world, performing crucial tasks like on-boarding, supporting and educating millions of customers. In 2019, **\$176 billion (total value of cash-in transactions) was digitised by mobile money agents globally.** This is more than the total value of formal international remittances flows to Sub-Saharan Africa, Latin America and the Caribbean combined in the same year¹² — evidence that agents are the main gateway to digital financial inclusion in markets where cash is still king.

The number of agent outlets has almost **tripled** over the past five years, reaching **7.7 million** in 2019.¹³ The proportion of **agents active on a 30-day basis** also increased to **54 per cent** during this period. Mobile money agents in rural and hard-to-reach areas have been instrumental in expanding financial inclusion as they provide wider geographical coverage than other channels. **A mobile money agent has seven**

times the reach of ATMs and 20 times the reach of bank branches. In 2019, the density of the agent network reached an average of 228 active mobile money agents per 100,000 adults, tripling since 2014. Meanwhile, the density of commercial bank branches in the same markets did not change substantially between 2014 and 2018, averaging 11 per 100,000 adults.

3 Figure 3. Reach of mobile money agents, bank branches and ATMs

Mobile money agents have 7x more reach than ATMs and 20x more reach than bank branches

Per 100,000 adults:

- 11 Banks
- 33 ATMs
- 228 Mobile money agents



12. World Bank Group (2018). [Global Findex Database 2017](#).

13. Note that this is not the number of unique mobile money agent outlets, but the sum of agent outlets providing cash-in and cash-out services for mobile money services available globally. In many markets, individual outlets may serve several mobile money service providers. This practice is more common in mature mobile money markets, particularly where competition among service providers is high. For this reason, the number must be interpreted with care.



A sleeping giant awakens: Nigeria's payments ecosystem in 365 days

Last year, we identified Nigeria as one of Africa's sleeping mobile money giants. Home to the continent's largest adult (114 million) and unbanked populations (60 per cent), Nigeria shows potential for the roll-out and adoption of mobile money services.

A year later, there is notable traction in Nigeria's payment space, primarily through the emergence of app-based wallets. Growing investment in this area has been complemented by significant strides in smartphone penetration, which has increased from 12 to 40 per cent in just five years.¹⁴

In November, Nigerian-based **Interswitch** became one of Africa's most valuable fintechs after Visa joined a host of investors to take a minority stake in the company,¹⁵ which is now valued at one billion dollars. 2019 also saw a strategic partnership between online payment company **Flutterwave** and China's Alipay, which is effectively connecting African entrepreneurs to over one billion Chinese customers.¹⁶

As these and other new fintechs scale, the question remains whether they will acquire customer segments outside Nigeria's urban and tech-savvy hubs like Lagos. Over-indexing on the country's smartphone users will continue to exclude the unbanked, many of whom are more likely to have access to feature phones.

With the recent introduction of Payment Service Banks (PSB), there is growing appetite from local mobile network operators (MNOs) and their subsidiaries to launch mobile money services. In September, the Central Bank of Nigeria granted

Approvals in Principle (AIP) to two local mobile operators, **9Mobile (9PSB)** and **Glo (Money Master PSB)**.

In August 2019, a subsidiary of **MTN Nigeria** began offering mobile money transfers through its agent network weeks after receiving a super-agent licence.¹⁷ The current foothold and subscriber base of these MNOs put them in a strong position to rapidly scale mobile money services, including in underserved parts of the country and among feature phone users.

Meanwhile, players such as **OPay** and **PalmPay** have entered the market with strategies focused on both tech-savvy and underserved consumers. OPay raised \$170 million¹⁸, founded by Chinese-owned consumer internet company Opera, and backed by nine Chinese investors.¹⁹ After launching a super app strategy very similar to GoJek in Indonesia, OPay is now expanding its services to offer payments via a USSD channel and target feature phone users.²⁰ In addition, PalmPay raised \$40 million in capital from China-based device maker Tecno, as well as NetEase and MediaTek.²¹ This partnership provides PalmPay access to Tecno's online and offline distribution networks, through pre-installing the app on all Tecno phones and converting Tecno retail stores to agents.

Within a year, Nigeria's payment landscape has seen big-ticket investments and a host of new entrants. Ultimately, this begs the question of which platform — fintechs or mobile money — will take the lead in acquiring and serving Nigeria's vast unbanked population sustainably.

14. GSMA Intelligence (2019).

15. Visa (12 November 2019). [Interswitch and Visa enter into strategic partnership](#).

16. Flutterwave (2019). [Year in Review](#).

17. Donkin, C. (2019). [MTN Nigeria launches mobile money agent service](#). Mobile World Live.

18. Briter Bridges (2019).

19. Bright, J. (2019). [Opera's Africa fintech startup OPay gains \\$120M from Chinese investors](#). TechCrunch.

20. Onaleye, T. (2019). [OPay Launches USSD Services to Allow Users Bank Without Data](#). Technext.ng

21. Bright, J. (2019). [PalmPay launches in Nigeria on \\$40M round led by China's Transsion](#). TechCrunch.

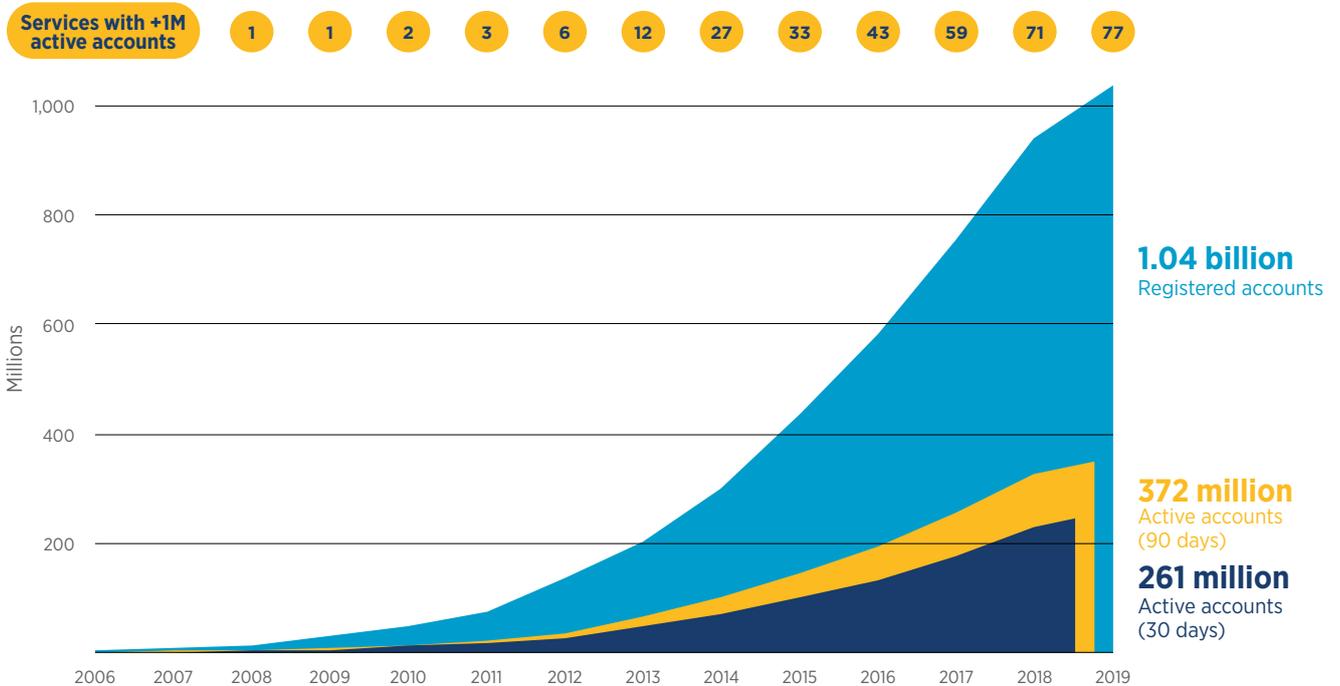
Increasing user trust and relevance

In 2019, customers used their mobile money accounts more often and as part of their daily activities. At the end of the year, **372 million accounts** — 35.8 per cent of all registered mobile money accounts — **were active on a 90-day basis**. In East Africa, the cradle of mobile money, the number of active mobile money accounts exceeded 100 million. However, the success of mobile money is no longer limited to a few markets and regions. **This year, 77 deployments had over a million active accounts (90-day) compared to 27 in 2014. Twenty-one of these services**

surpassed the five million active accounts mark.

The gap between activity on a 30-day and 90-day basis is narrowing, with 70 per cent of 90-day active accounts now active on a monthly (30-day) basis. The total number of accounts active on a monthly basis has exceeded 261 million, and the GSMA forecasts that by 2025, the number of monthly mobile money customer accounts will surpass 370 million, the level where 90-day accounts were at end of 2019.

4 Figure 4. Registered and active mobile money accounts





In most low-income countries, the path to financial inclusion is primarily through mobile money.
 This is evident by the spread of mobile money services and the share of active accounts as a proportion of the adult population (see Figure 5).

5

Figure 5. Reaching the poorest countries with mobile money

Source: GSMA Mobile Money data 2019 and World Bank, Findex 2017

GDP per capita and share of population without an account at a financial institution in 142 countries in relation with mobile money penetration.



Countries

- Mobile money
- No mobile money

Mobile money penetration

(Active 90 days / adult population) in 78 out of 95 mobile money countries

- 25%
- 50%
- 75%
- 100%



Growth in transaction values has been impressive

Total transaction values grew by 20 per cent in the past 12 months, reaching **\$690 billion in 2019**, which means the industry is now **processing close to \$2 billion a day**. The GSMA forecasts that this strong growth in transaction values will endure, and **by 2023 over \$1 trillion will be transacted via mobile money** platforms on an annual basis, translating to **over \$2.8 billion a day**. This growth and scale is a positive signal for the industry as it demonstrates higher levels of customer trust, greater relevance for users and the capacity of mobile money to digitise an increasing amount of capital.

Value of mobile money transactions:

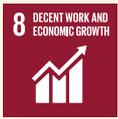
2019

\$690bn

2023

\$1 trillion

Creating new sources of income and empowering local entrepreneurs



The industry continues to invest in agent networks and sustainable sources of income, which is critical to achieving SDG 8 (Decent Work and Economic Growth).

The mobile money industry has created opportunities for entrepreneurs in emerging markets to become agents, and the agent network remains a key asset of mobile money providers. As uptake of mobile money services continues, expanding and evolving the agent network becomes even more critical to ensuring a high-quality service.

Mobile money providers have therefore focused on growing their distribution network, expanding their foothold in rural and hard-to-reach areas and supporting agents with education and training. Although agent distribution networks incur the highest operating costs for providers, our analysis shows that successful providers have managed to maintain healthy and sustainable agent commissions without reducing investment in other areas of their business. According to our 2019 Global Adoption Survey, **\$1.1 billion in commissions**

were paid directly to 1.4 million agents, which is equivalent to an average of \$841 in additional annual income.

This represents a sizeable net gain in income. Although some agents shifted their core business activity from airtime sales to mobile money, and some were small shopkeepers who became mobile money agents, our analysis shows that the additional monthly income agents are earning from commissions is **enough to put a child through primary and secondary school** in some countries, including Côte d'Ivoire and Ghana.²² This figure is equivalent to \$70 per month on average, although in markets where one agent can offer services for multiple mobile money providers, a successful agent could earn several times that amount. Also, since most agents operate a micro-retail business in addition to their mobile money business, adding a stable and reliable income means they are better able to spread costs across multiple businesses. **These findings demonstrate both the direct and indirect contributions of the industry to new income creation.**



22. According to the UNESCO Institute for Statistics (UIS), households in Ghana spend about \$87 annually per child on primary education, while in Côte d'Ivoire this figure is \$151. Household spending per student reaches \$228 a year in Ghana and \$637 in Côte d'Ivoire. See: UNESCO (2017). [Education Data Release: New Indicators and More Data for Countries in Every Region.](#)



**Beyond one billion
mobile money accounts:**

Commercial sustainability

**and the shift to a 'payments
as a platform' model**

Last year, the GSMA published a report on potential pathways for evolving the mobile money business model and the transition to a 'payments as a platform' model.²³ With internet and smartphone penetration in emerging markets at an all-time high, the report details how mobile money providers can adapt their strategy to a platform-based approach and remain sustainable as online and fintech platforms expand.

Evolving the business model also ensures that mobile money can continue to contribute to financial inclusion and socioeconomic gains. In less developed markets, mobile money is far more accessible than app-based platforms, particularly outside urban centres.

The **'payments as a platform'** model represents a five-pillar shift that encompasses both global trends and industry needs. It involves lowering barriers for partnerships or creating a more accessible environment for third parties, and moving away from one-on-one negotiations and one-off third-party integrations. It also enables a diversified revenue model supplemented

by monetisation from adjacent services, businesses and governments. All this ultimately unlocks more targeted services for individuals, businesses and communities, and creates a more engaged user base for providers.

Last year, we learned that successful providers were already working to make this transition. In this section, we explore how the industry has taken additional steps towards a 'payments as a platform' model with increased accessibility and integrations, and how commercially sustainable and viable this shift has been.

Commercial sustainability and revenue diversification

The extraordinary success of mobile money is due to a multitude of conducive conditions, sustained investment, operational excellence and a drive to innovate and digitise a growing payment ecosystem. However, success in the industry is not guaranteed. Even without regulatory barriers, mobile money providers need significant time and resources to build a robust agent network and acquire and educate customers. In their early years, providers often invest six to eight times the revenue units generated by mobile money.²⁴

They may even incur heavy initial losses and invest in the system until sufficient value is flowing through their systems to break even (roughly three years).²⁵ In essence, mobile money providers can break even once they manage to get sufficient value flowing through their systems. A study by McKinsey showed that this break-even point was between \$2 billion and \$3 billion in annual transaction value, which translates into total system revenue of roughly \$20-30 million.²⁶

23. Naghavi, N. GSMA (2019). [Embracing payments as a platform for the future of mobile money](#). GSMA

24. Amlazan, M. and Vonthron, N. GSMA (2014). [Mobile money profitability: a digital ecosystem to drive healthy margins](#). GSMA

25. This does not take into account the foundational network costs that mobile network operators must incur which are fundamental for the existence of the mobile money industry.

26. McKinsey (2018). [Mobile Money in Emerging Markets: The Business Case for Financial Inclusion](#).

Trends show a growing number of providers are becoming sustainable

Not all mobile money deployments are profitable, but in 2019, a growing number of mobile money services crossed the threshold to become commercially sustainable: **60 per cent of providers that responded to our Global Adoption Survey reported a positive EBITDA.**

Mobile money has become a core product offering for many MNOs. Direct revenues from mobile money are supporting investment in innovative products and services, and network expansion is enabling them to reach new and underserved customer segments. Combined with their unique assets — a trusted brand, widespread distribution and secure channel access — mobile money revenues are making it possible for MNOs to deliver these services sustainably and at scale.



60% of respondents have a positive EBITDA

Less reliance on customer fees indicates diversified revenue models and a shift to a 'payments as a platform' approach

Revenue diversification is key to building a sustainable and viable mobile money business. In 2018, close to 80 per cent of providers reported that the majority of their revenues were generated from customer fees. In 2019, **we saw a significant drop in reliance on customer fees, with two-thirds of respondents reporting the same.** Additionally, 21 per cent of respondents reported that business fees drive most of their revenues, a clear indication that providers are focusing more on enterprises and diversifying their revenue models.



Reliance on customer fees significantly dropped: 80% of respondents in 2018 down to 67% in 2019

21% of respondents reported business fees drive majority of revenue

These findings suggest a strategic shift in the industry, with providers moving towards a 'payments as a platform' model, encouraging value to remain digital and expanding their value proposition to adjacent services.



The evolution of the digital ecosystem

Two key trends in 2019 indicate that the industry has reached what can only be described as a digital threshold

Usage trends provide the best insights into the industry's transition to a 'payments as a platform' model. Since 2014, there has been a gradual shift from cash towards digital payments, but in 2019 the digitisation of payments reached new heights.

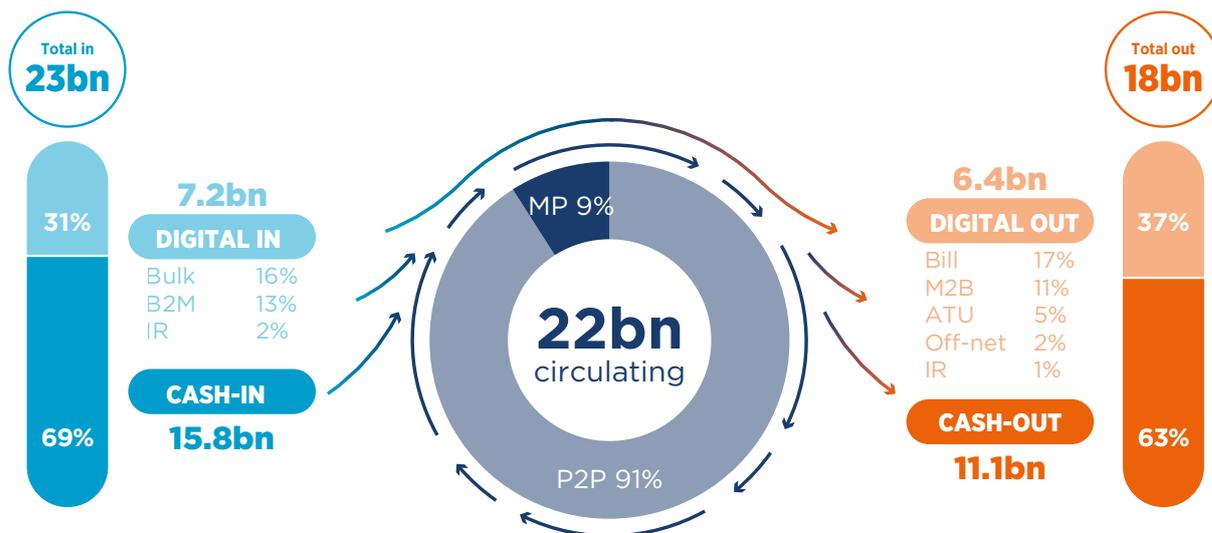
Trend 1

For the first time, digital transactions represent the majority of mobile money flows (57 per cent)

In fact, the ratio of digital to cash-based transactions reached 1.3, an increase by 50% since 2017.²⁷ A larger proportion of money is entering and leaving the system in digital form, rather than through a cash conversion. This is primarily due to the industry becoming a more integral part of the financial ecosystem and lower barriers to third-party integration (see Figure 6).

6 Figure 6. The ins and outs of mobile money²⁸

(Transaction values, USD, December 2019)



27. Digital transactions: peer-to-peer transfers, international remittances, bank-to-mobile transfers, bill payments, bulk disbursements, mobile-to-bank transfers, merchant payments and airtime top-ups; Cash-based transactions: cash-in and cash-out.

28. P2P (peer-to-peer transfers), IR (international remittances), B2M (bank-to-mobile transfers), Bill (bill payments), Bulk (bulk disbursements), M2B (mobile-to-bank transfers), MP (merchant payments), ATU (airtime top-ups).



Mobile money is increasingly integral to the financial ecosystem

Like other payments infrastructure, mobile money began as an innovative proprietary solution that allowed people to send and receive money with other users of the same service. In many countries, mobile money was initially a standalone tool, not connected to a centralised third-party platform and largely separate from other sources of digital funds.

This has changed, of course, and **today's mobile money industry is increasingly interoperable**. In most markets (48 out of 95), customers can transfer money between accounts held with different mobile money providers and with other financial system players.

On average, **mobile money providers with bank integrations are connected to 13 banks**, which has dramatically increased the volumes moving between mobile money and banking systems. Mobile money-to-bank account interoperability has grown significantly, **increasing by 34 per cent year on year in 2019**. This represents a greater proportion of money entering the system (12.9 per cent compared to less than 10 per cent in both 2017 and 2018, see Figure 6).

Today, we are also seeing balanced flows between mobile money and banks. The value of bank account-to-mobile money transactions has grown significantly in the past few years, with these flows accounting

for 10.5 per cent of outgoing transactions, an increase of nearly five percentage points since 2017. These findings suggest that mobile money is complementing the formal banking sector while also meeting the needs of entirely new customer segments, including traditionally underserved and cash-reliant customers.

In addition to interoperability with banks, **mobile money account-to-account (A2A) interoperability is increasing transfer volumes between providers**. Interoperable P2P transfer volumes (i.e. off-net transfers) **grew by nearly 40 per cent** between 2018 and 2019 without having an impact on existing on-net P2P transfers in these markets.

Beyond domestic interoperability and integrations with banks, **the industry is becoming more integrated with international financial system players**. Mobile money-enabled international remittances have been flourishing, with **\$7.3 billion processed in 2019**, compared to **\$5.5 billion in 2018**. This growth has been driven primarily by strong provider appetite for cross-border interoperability and integrations with traditional remittance service providers (RSPs) like money transfer operators MoneyGram and Western Union, and digital RSPs and fintechs, such as WorldRemit and Azimo.

In addition to connecting with mobile money providers across borders and enabling users to send and receive international remittances via mobile money,²⁹ some providers are also adopting a diaspora strategy. By expanding their reach beyond their existing footprints, millions of migrants and their families will now have access to faster, safer and cheaper international remittances.³⁰ For instance, Orange has so far enabled its mobile subscribers in France to send remittances to Orange Money customers in Côte d'Ivoire, Guinea, Madagascar and Mali.³¹ MTN also launched its Homeland remittance service in 2019, facilitating money transfer between Europe and Africa. Remittances can be sent via the MTN Homeland app on iOS or Android to mobile money accounts in six markets (Cameroon, Congo, Ghana, Guinea, Rwanda and Uganda).³²

Interoperability continues to provide customers with the opportunity to transact with more users across more use cases,

services and markets. An important question for both the mobile money industry and the broader financial system is how mobile money will be integrated in existing and new payments infrastructures. If led by governments, and without careful design and consideration of mobile money operational and commercial models, interoperability could undermine future investment, stifle innovation and increase operational complexity and risk, without advancing market growth. This could, in turn, reverse important financial inclusion gains by the mobile money industry. To find the best solution, the right balance must be struck between private and public sector involvement.

Fully interoperable mobile money services that address the needs of customers remains the goal of the mobile money industry. The GSMA remains committed to supporting the industry in developing a commercially sustainable solution.



On average mobile money services with bank integration are connected to 13 banks



Interoperable P2P transfer volumes grew by nearly 40%



\$7.3 billion mobile money-enabled international remittances processed

29. This has been a strong model for enabling intra-regional corridors, particularly in Africa. See: Naghavi, N. and Scharwatt, C. (2018). [Mobile money: Competing with informal channels to accelerate the digitisation of remittances](#). GSMA

30. Ibid.

31. Orange (2016). [Orange launches Orange Money in France to allow money transfers to three countries in Africa and within mainland France](#).

32. MTN (2019). [MTN's latest Fintech innovation eases international remittances to Africa](#).



Seamless integration with third parties is on the rise

The ‘payments as a platform’ model relies on participation in broader financial services and technology ecosystems, and plug-and-play access to a mobile money service through APIs is a crucial step. For mobile money providers, providing plug-and-play access can completely transform their service as it significantly reduces the time it takes to link with partners (which can take several months) and significantly increases the range of services available to customers.

A few years ago, only a handful of services had open APIs. However, our 2019 Global Adoption Survey shows a promising trend: with almost **20 per cent of respondents reporting they have published mobile money APIs**, the industry is becoming more accessible to third parties. **On average,**

providers are integrated with 98 billers, including 17 government agencies and 11 utility companies, 52 organisations for bulk disbursements³³ and over 13 thousand merchants.

Laying the groundwork for financial and technology ecosystems to grow around the mobile money system will also spur local entrepreneurialism and innovation. This, in turn, will encourage more value to remain digital. For instance, in 2019, MTN Group opened its MoMo API programme in seven countries (Benin, Cameroon Congo, Côte d’Ivoire, Ghana, Uganda and Zambia) to foster innovation and enhance financial inclusion.³⁴ More than 3,700 developers have already registered in the programme, driving millions of digital transactions.

33. This excludes a small number of high-performing outliers connected to 8,000–10,000 organisations.
34. MTN (2020). [MTN MoMo API](#).



Trend 2

More value is circulating in the mobile money system than exiting — another industry first

The total value in circulation (P2P and merchant payments) reached \$22 billion in December 2019, more than doubling over the past two years and significantly surpassing the total value of outgoing transactions (\$18 billion) (Figure 6). This indicates that industry practitioners have successfully pinpointed what keeps value circulating in the mobile money system.

There is no sign of P2P transfers slowing down. In fact, even though P2P is one of the most scaled use cases, the **total value of P2P transfers has more than doubled since 2017**. This continued growth and scale is eclipsing the healthy growth of merchant payments, which as a result now represent a smaller proportion of circulating value (8.6 per cent). However, **merchant payments still experienced year-on-year growth of 34 per cent**, and the number of merchant payment transactions per unique customer grew by 13 per cent to reach 2.2 in 2019.

7 Figure 7. Growth of monthly P2P transfers in value

(USD, December 2017-2019)



We estimate that a substantial proportion of P2P transfers are made by small businesses and micro-entrepreneurs. GSMA research in two Sub-Saharan African countries showed that 80 per cent of micro, small and medium enterprises (MSMEs) already owned a mobile money account, 83 per cent of which were using personal mobile money accounts for business needs.³⁵ There is a similar trend in other mobile money markets, driven by a confluence of factors: the informality of the MSME sector and low levels of ownership of necessary documentation, frictions in the user experience for merchants and customers, and the lack of a compelling value proposition.

However, leading providers have already taken big steps to address some of these challenges. More and more providers are offering a stronger value proposition to merchants and empowering MSMEs to reach a broader customer base by enabling them to sell online. The industry is also taking initial steps to enhance the customer and merchant experience with improved payment interfaces. Ultimately, the goal is for mobile money to triumph over cash in retail payments, including online payments. To make this vision a reality, providers are starting to offer merchants benefits that cash does not currently provide.

35. Pasti, F. and Nautiyal, A. (2019). *Addressing the financial services needs of MSMEs in Sub-Saharan Africa*. GSMA.



The value proposition is becoming more compelling for MSMEs

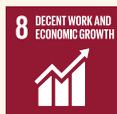
Merchant payments is one of the more complex mobile money use cases. Although mobile money offers convenience for customers, they are not the primary beneficiaries of a merchant payment. Therefore adoption also relies on a strong value proposition for MSMEs.

MSMEs play a major role in economic development across emerging markets, contributing up to 40 per cent of national income (GDP) and up to 60 per cent of total employment.³⁶ These figures are significantly higher if informal MSMEs are included. However, the financial needs of most MSMEs are not currently being met.³⁷

Our quantitative and qualitative analysis of MSME needs in Central Africa revealed pain points that were remarkably similar across countries and continents. Access to financing and tools that help to increase productivity were both on MSMEs' wish lists. Mobile money providers are well positioned to respond to these needs with tailored solutions for MSMEs, and many are recognising this opportunity.

We asked providers to share which tools they offer merchants, and **74 per cent of respondents stated that they offered additional tools that help with the day-to-day management of a business, such as customer analytics, inventory management and accounting.** Customer analytics was the most commonly offered tool in 2019.

A vibrant and growing MSME market is vital to achieving long-term economic growth and creating sustainable income-generating opportunities for the growing youth population in emerging markets. One of the main pain points hindering growth in the sector is access to financing, both for working capital and investments. By digitising the economic activities of MSMEs, which are often cash-based, inconsistent and undocumented, mobile money providers can help bridge the \$5.2 trillion annual credit gap.³⁸ This requires partnerships with banks, other financial institutions and fintech companies, and our survey shows that providers are already increasing their presence in this space: **29 per cent of respondents offered credit lines to their agents and 19 per cent loaned to their merchants.**



These findings suggest that the industry is making progress in creating value for MSMEs and increasing productivity levels that, in turn, boost job creation and economic growth (SDG 8 and 9).

36. World Bank Group (2020). *Small and Medium Enterprises (SMEs) Finance: Improving SMEs' access to finance and finding innovative solutions to unlock sources of capital.*

37. Ibid.

38. Ibid.

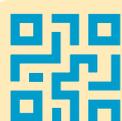


The promise of QR codes for retail payments

A variety of acceptance technologies are available to mobile money merchants (including QR codes, NFC and USSD), but USSD is still the most common interface offered by providers globally. Seventy-six per cent of providers that responded to this year's Global Adoption Survey offered this interface while only 36 per cent offered QR codes.

QR codes simplify the merchant payment experience as they eliminate the need for

customers to manually enter the merchant number. Our analysis shows that **merchants that use QR codes transacted three times more in value** than merchants who only offer other channels. This early evidence suggests that QR codes have the potential to bring lasting and profound behaviour change to low-income customers and merchants, and make digital payments a part of their everyday lives.



3X Merchants using QR codes transacted three times more in value

QR code transactions connect the online and physical world in a simple and easy way. China has been a leader in using QR codes as an acceptance technology for proximity payments, even among low-income merchants. China's two leading tech giants, Tencent's WeChat Pay and Alibaba's spin-off Alipay, handle almost all the country's \$5.5 trillion mobile payments market and rely heavily on QR technology.³⁹

The key question is whether QR codes will see the same level of adoption outside China and in markets where there are gaps in smartphone adoption and mobile internet access. Smartphone adoption across emerging markets is on the rise, and particularly strong in regions where mobile money is prevalent. **By the end of 2019, smartphone adoption reached 60 per cent in South Asia and 46 per cent in Sub-Saharan Africa.** Smartphones now outnumber basic and feature phones in over half of all countries in Sub-Saharan Africa. We expect this trend to continue and predict that smartphone adoption will reach 79.4 per cent across emerging markets in 2025.⁴⁰

Despite the rise in smartphone adoption, USSD remains the dominant channel for mobile money transactions globally. The gap

in smartphone and mobile internet usage is most noticeable in Sub-Saharan Africa, where nine in 10 transactions still flow through USSD. QR codes hold particular promise because they can be offered without access to mobile internet. At their most basic, QR code solutions only require static QR code stickers to begin facilitating payments, and can work using a phone with a camera in conjunction with USSD.

Using QR codes simplifies the expansion of an acceptance network or merchant network for retailers that do not have access to smartphones, as they can use the printout of the merchant's QR code identifier instead. QR codes also offer more cost-effective electronic payment channels to penetrate the informal food and retail segments.

There are several standards for QR codes. Leading markets in QR code use, such as China, Indonesia and India, are taking a leap forward in harmonising QR codes and making mobile payments interoperable.⁴¹ Harmonised and interoperable QR codes enable widespread adoption and make it easier for customers and merchants with different devices and apps to use the system seamlessly and beyond national borders.

39. Pymnts (2020) [Mobile Payments Hit \\$5.5 Trillion in China](#).

40. GSMA Intelligence

41. China: The Chinese government is working on standardisation, which it began in 2017. India: In 2016, the Reserve Bank of India directed card companies to work together and evolve a standard for QR payments. The common standard, called Bharat QR, was launched in December 2016. See: PBC (2018). Notice No. 296 I/2017 of the People's Bank of China—On Issuing the Standards for the Barcode Payment Business (for Trial Implementation). Indonesia: The central bank harmonised the regulatory corridors and technological standards for QR payments when they launched the Quick Response Indonesia Standard (QRIS) for QR Codes in August 2019, which has become effective in January 2020. See: The Jakarta Post (2019). [Bank Indonesia launches national standard QR code](#).



Bridging the gap between offline customers and online merchants

In 2019, e-commerce transactions facilitated by mobile money doubled in value and more than doubled in volume.

This strong growth indicates that more integrations are happening directly between operators and online businesses or through online payment gateways. Despite this impressive growth, e-commerce transactions still represent only 11.5 per cent of the total value of mobile money retail transactions.

Meanwhile, the global spread of social media, coupled with the rapid growth of e-commerce, is giving rise to a new trend in which content sharing, messaging and payments converge.

Social commerce — the use of social interactions combined with the transactional nature of e-commerce — has led to new forms of shopping in collaborative online environments. **Mobile money providers have a variety of roles to play in social commerce and can contribute to the growth of the sector.**

More and more customers prefer not to leave a social environment for an external site to complete a purchase. For instance, a consumer survey in Cameroon found that 88 per cent of respondents had purchased items through WhatsApp while 68 per cent

had purchased through Facebook.⁴² However, a recent study by the GSMA showed that, in most markets, social commerce is not designed end to end, and still requires support for logistics, delivery and payments. This creates frictions in the online journey between customers and merchants, as customers must split purchases between online and offline interactions or between different apps. Informal delivery and payment processes are also required, raising trust concerns.⁴³

Mobile money providers can use their existing assets to address these frictions or offer new features and tools, either built in-house or through partnerships with third-party providers. However, they must have a firm grasp of the market dynamics, including social commerce dynamics, and a concrete value proposition. The experience of successful social commerce players has shown that prioritising one key feature at a time and expanding from there can be an effective approach (see Figure 8). Providers should prioritise features based on their ease of implementation and potential impact on users in their market. Where feasible, providers can partner with third parties to quickly test and launch these solutions.⁴⁴

42. DINA Surveys (2019). *Le marché du E-Commerce au Cameroun*.

43. Naghavi, N. (2019). *Social Commerce in Emerging Markets: Understanding the Landscape and Opportunities for Mobile Money*. GSMA.

44. Ibid.

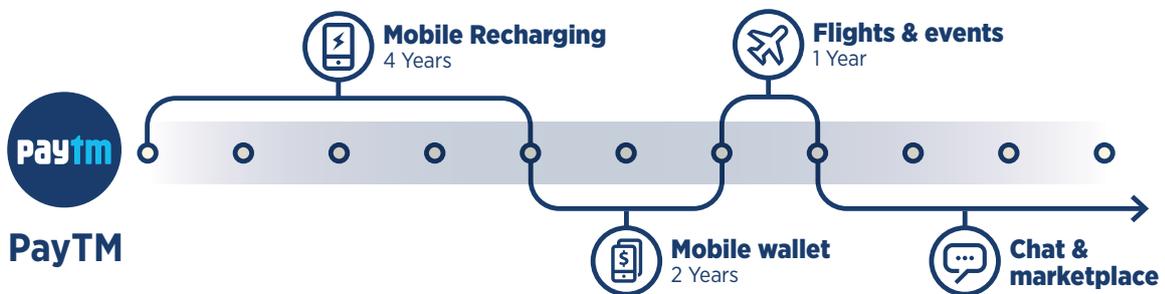
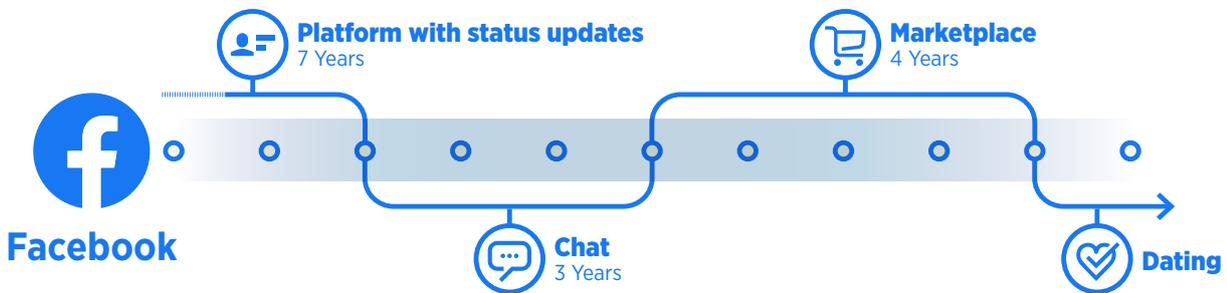
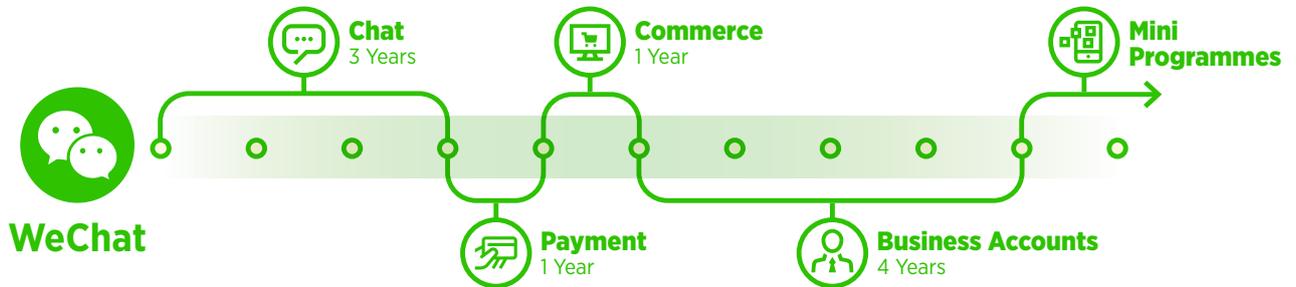


e-commerce transactions facilitated by mobile money doubled in value and more than doubled in volume

8

Figure 8. Development of social commerce features over time

Source: Roland Berger



The evolution of adjacent services in 2019

By offering adjacent services such as credit, savings and insurance, mobile money providers can better serve the varied needs of their customers while also reducing reliance on revenues from customer fees. In doing so, mobile money is creating opportunities for people to pursue their dreams.

Mobile money-enabled savings

Savings are the foundation of personal finance management. They enable individuals to prepare for emergencies and invest in their future without accumulating debt. Digital formal savings products in particular make saving more secure and efficient, and can unlock access to more sophisticated financial services. Data on saving behaviour can be leveraged to more accurately assess a customer's financial profile and support loan and insurance applications. In addition to these benefits, digitisation of savings enables savers to go cash-free, enhancing safety and convenience. The mobile money industry could play a leading role in accelerating the formalisation and digitisation of savings. This requires working in partnership with deposit-taking institutions, including banks.

Adults in developing countries still primarily save informally — the 2017 Global Findex report found that only 21 per cent of all adults in developing countries save at a financial institution.⁴⁵ However, this may be changing. In 2019, several trends suggest that mobile money is **cultivating a formal savings culture, which would ultimately empower individuals and households to plan for future financial needs and weather income shortfalls.** Mobile money providers are working with deposit-taking institutions to accelerate the spread of formal savings by offering low-income and underserved populations a convenient way to save digitally. In June 2019, **over \$241 million was transferred to mobile money-enabled savings accounts,** enough for **over 600,000 women in low-income countries to start**

a business.⁴⁶ In the same month, at least **26 million unique customers saved via mobile money.** This is a 39 per cent increase from 2018 and evidence that the industry is facilitating a shift to digital formal savings.

In June 2019

26m
unique customers
saved via mobile
money

The mobile money industry is uniquely positioned to help savings groups go digital

Saving habits have a strong community dimension in developing markets, traditionally rooted in trust and long-standing relationships. In regions like Sub-Saharan Africa, the epicentre of mobile money, more adults save with a savings group than a financial institution,⁴⁷ providing an opportunity for the mobile money industry to digitise savings groups.⁴⁸ Savings groups come in a variety of forms, including table banking, Rotating Savings and Credit Associations (ROSCAs), Accumulating Savings and Credit Associations (ASCAs), Village Savings and Loan Associations (VSLAs) and Savings and Credit Cooperative Organisations (SACCOs).

45. World Bank Group (2018). [The Global Findex Database 2017](#); World Bank Group (2015). [The Global Findex Database 2014](#).

46. 2019 World Bank data: Low-income countries GNI per capita; Cost of starting up a business for women.

47. World Bank Group (2018). [The Global Findex Database 2017](#).

48. In partnership with deposit-taking institutions.



Ensibuuko: driving financial inclusion by digitising traditional savings groups

Ensibuuko is a Uganda-based start-up partially funded by the GSMA Ecosystem Accelerator programme. It provides a mobile platform that connects SACCOs and VSLAs to users and, through a partnership with MTN Mobile Money and Airtel Money, enables them to withdraw cash, make deposits or repay loans using their existing mobile money account.

Ensibuuko's customised software, Mobis, provides savings and lending groups with the ability to manage their records digitally. This helps them to

become more transparent and accountable, and puts them in a better position to receive financing from third parties.

Mobis' mobile money integration went live in January 2019. Since then, the number of SACCOs registered on the platform has increased by 22 per cent, representing a total of 188,012 active members. By August 2019, the cumulative value of transactions digitised via mobile money grew from \$69 to over \$140,000.

Like individual savings products, digitising savings groups via mobile money is more efficient and secure.⁴⁹ Savings group managers can record transactions and manage pay-outs transparently and accurately, while members report a greater sense of security from going cash-free. First attempts at digitising savings groups have seen mobile money providers either launching their own services, such as M-PESA Chama in Kenya, EcoCash Savings Club in Zimbabwe and M-Koba in Tanzania, or partnering with start-ups that have developed dedicated products to run on their mobile money rails, such as Ensibuuko.

Expertise in digitising payment systems and an extensive local presence enable mobile money providers to lead the transition of savings groups from offline to online. However, digital group savings products should be designed with the socio-cultural context and needs of local communities at the forefront. User-centric solutions that balance "tech and touch", an approach defined by Accion,⁵⁰ can allow mobile money providers to reconcile saving traditions with the benefits of digitisation. For example, a mix of in-person and digital channels for customer education, on-boarding and acquisition.

49. David Nanambi Wakyiku and Prisca Adong (2018). [Digitization of SACCOs in Uganda: Drivers and impact study](#). Mercy Corps.

50. Accion (2018). [The Tech Touch Balance](#).

Mobile money-enabled credit

Credit is an engine of social and economic growth, driving innovation and entrepreneurship. Loans provide the funds people need for personal development and professional pursuits, such as enrolling in higher education, purchasing a house or starting a business.

The 2017 Global Findex report found that nearly 44 per cent of all adults in developing countries borrow money (a slight decrease from 48 per cent in 2014) and just nine per cent borrow from a financial institution.⁵¹ Lack of financial records is one of the main reasons why a large proportion of underserved populations are excluded from formal lending. Our analysis shows that mobile money is bridging this information gap between borrowers and financial institutions, and helping individuals and MSMEs benefit from the opportunities that convenient access to credit creates.

Increasingly, mobile money providers are partnering with regulated financial institutions to offer credit

There are various ways the mobile money industry can participate in the provision of digital credit services, including partnerships with licensed lenders. These partnerships are subject to a higher level of scrutiny as regulatory approval is required for both the mobile money provider and the lending institution. After formalising their respective roles and responsibilities, the two parties must comply with a broad set of provisions that typically include customer management, marketing, communication and data protection.⁵² This model can provide greater protection to customers than services offered by unlicensed lenders in markets where credit is not regulated.

According to our 2019 Global Adoption Survey, **the number of deployments offering credit grew by 25 per cent. Nearly 70 per cent of respondents offering credit are partnering with a regulated financial institution.** In June 2019, the value of digital loans processed by these providers reached at least \$390 million, equivalent to the average annual income of 336,490 Malawians.⁵³

Evidence of the partnership model's success can be found in Kenya, one of the most mature digital credit markets in developing economies, where the volume of digital loans surpassed traditional loans in 2015.⁵⁴ Research by MicroSave Consulting shows that between 2016 and 2018, non-performing loans in Kenya decreased by 20 percentage points for mobile money providers that had partnerships with banks.

The reduction in non-performing loans is mainly due to more accurate financial profiles, which have been enabled by the wealth of mobile money transactional data now available through the use of savings products, P2P payments and other ecosystem transactions. The quality of credit checks depends heavily on this type of financial data, and puts mobile money providers in a unique position to help encourage responsible lending practices.⁵⁵

The scalability and speed of digital credit services call for closer collaboration among regulators, mobile money providers, lenders and consumer protection agencies. This coordination will be essential to ensuring that users fully understand the services and benefit from the opportunities unlocked by formal credit.

51. World Bank Group (2018). [The Global Findex Database 2017](#).

52. Lopez, M. (2019). [Digital credit for mobile money providers: A guide to addressing the risks associated with digital credit services](#). GSMA.

53. UNDP (2019). [Human Development Report 2019](#).

54. MicroSave Consulting (2019). [Making Digital Credit Truly Responsible: Insights from analysis of digital credit in Kenya](#).

55. F. Gwer, J. Odero and E. Totolo (2019). [Digital credit audit report: Evaluating the conduct and practice of digital lending in Kenya](#). FSD Kenya.



Fuliza: an overdraft service removing frictions in completing payments

One of the most ground-breaking innovations in the digital credit space is Fuliza, Safaricom's M-PESA transactional overdraft service launched in January 2019 in conjunction with NCBA in Kenya. For M-PESA users that opt in, Fuliza automatically takes effect if they fall short of funds when completing P2P, merchant or bill payments, but not withdrawals. The overdraft is repaid automatically once funds are in the user's mobile money account.

Despite the service being available to everyone, the awarding of limits depends on a customer's creditworthiness and how long they have been using M-PESA. Fuliza is already transforming Kenya's financial landscape. By Q3 2019, the sum of Fuliza overdrafts amounted to 140 billion Kenyan shillings⁵⁶ (about \$1.4 billion). In fact, one in two M-PESA subscribers opted into the service within three months of its launch.⁵⁷

56. Business Daily Africa (2019). [Safaricom considers lowering M-Shwari, Fuliza charges](#).
57. Safaricom (2019). [Sustainable Business Report](#).

Mobile-enabled insurance

Traditional insurance providers have yet to reach the 3.8 billion potential customers in emerging markets who are currently underinsured and acutely vulnerable to unexpected emergencies and financial shocks.⁵⁸ This coverage gap can have devastating short- and long-term consequences, and there is a significant market opportunity for mobile to leapfrog traditional models and help protect the underinsured.

Mobile-enabled insurance is showing promising signs of growth, offering a safety net to vulnerable populations during emergencies

MNOs are increasingly embracing insurance as part of their product offerings. Mobile-enabled microinsurance value chains include a mix of traditional and non-traditional players: insurers (usually in-country underwriters), technical service providers (TSPs) and MNOs.⁵⁹ TSPs have continued to lead the expansion of the mobile-enabled microinsurance industry and cemented their position as the commercial model of choice across the industry. They have also attracted significant investments in recent years from capital and private equity funds, from funds run by international financial bodies like the International Finance Corporation (IFC) to international underwriters. For instance, Allianz funded BIMA in 2017, Axa (2014, 2016) and Flourish (2018) invested in MicroEnsure, and Goodwell Investments backed Inclusivity Solutions in 2019.

Business models vary, but underwriting is always the insurer's remit while MNOs collect the premiums. The main role of TSPs is typically processing claims while MNOs provide the physical mechanism to pay out claims.

There are currently 102 mobile-enabled insurance services in 27 countries. The top three product offerings in 2019 were life, health and accident (see Figure 9). Most commercial models in use are premium-based, confirming earlier trends.⁶⁰ Interestingly, a diverse set of new use cases are emerging, such as children's education, bike damage and theft, medical expenses for pets, housing, income protection and mobile phones ('other types of insurance' in Figure 9). **Over 14 million new policies were issued in 2019.**



58. Cheston, S. (2018). *Inclusive Insurance: Closing the Protection Gap for Emerging Customers*.

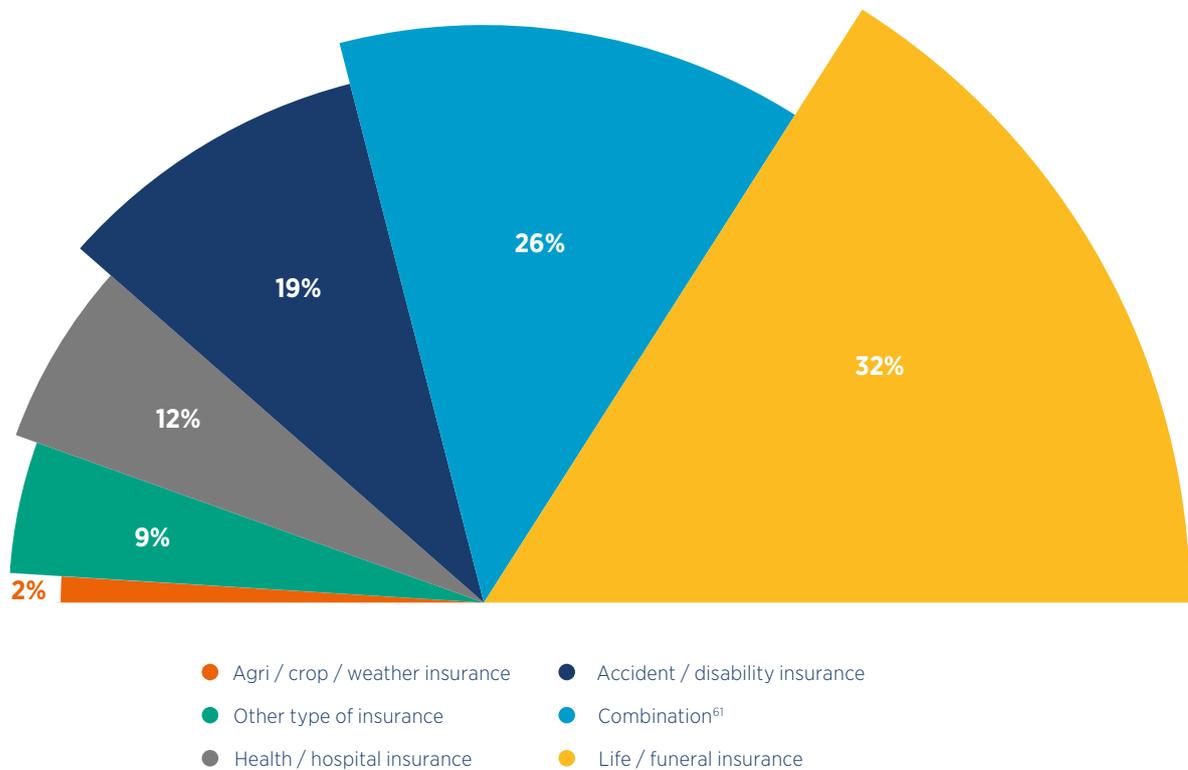
59. Raithatha, R. and Naghavi, N. (2018). *Spotlight on mobile-enabled insurance services*. GSMA.

60. Ibid



9

Figure 9. Share of active mobile-enabled insurance products, 2019



While these developments are encouraging, inclusive insurance has untapped potential for the mobile money industry

The mobile money industry is ideally positioned to unlock widespread access to insurance products. With the shift to a 'payments as a platform' model, and more industries integrating with mobile money powered by open APIs and viable business

models, there is a huge opportunity for data analytics to drive innovation in the insurance sector. Comprehensive data and analytics capabilities can allow mobile money providers to match insurance providers with users, while insurance providers, including TSPs and start-ups with a more niche focus, can reach new customers with targeted products.

61. 80% of the combination products consists of life insurance, combined either with hospital, accident or health insurance.



**Beyond one billion
mobile money accounts:**

Regulatory and policy trends

Regulation that enables low-cost services for the financially excluded has been crucial to the success of mobile money. There is a clear correlation between countries with high mobile money adoption rates and those with more enabling regulatory environments.⁶²

An increasing number of countries are adopting enabling regulatory frameworks, but certain policy interventions are hindering progress, including sector-specific taxation and data localisation requirements. Often, these interventions first appear in mature

mobile money markets and are then replicated in others where the service is more nascent, threatening its development. The following section examines these regulatory and policy trends in more detail.

Regulatory developments in 2019

As mobile money is mainstreamed into national payments infrastructure, the regulatory landscape is evolving. While the traditional MNO-led regulatory model is still prevalent in many parts of Sub-Saharan Africa, there has been a discernible shift towards “payments institution” licensing regimes.⁶³ For example, in 2019, Tunisia brought mobile money services under the regulatory purview of the Central Bank of Tunisia. Even in countries where the traditional MNO-led model was pioneered, the payments institution model is gaining ground. For instance, in Kenya, parliament has debated the legal separation of mobile money business from the core telecommunications business of MNOs, which Tanzania has already done.⁶⁴ However, regulators and policymakers have cautioned against this perceived parliamentary overreach, arguing that it may stifle innovation.⁶⁵ Similarly, in May 2019, the State Bank of Pakistan introduced new regulations for Electronic Money Institutions (EMIs)⁶⁶ with lower entry barriers for non-banks seeking to offer mobile money services.⁶⁷ In September, the Central Bank of Nigeria granted Approvals in Principle (AIP) to three Payment Service Bank (PSB)

applicants, two of which were subsidiaries of local mobile operators, 9Mobile (9PSB) and Glo (Money Master PSB). There is optimism that these developments in Nigeria will stimulate rapid adoption of mobile money and awaken this sleeping giant.

The shift to this “payment institution” model has not been without challenges. In India, several payments banks surrendered their licences to the Reserve Bank of India (RBI) in 2019, citing an increasingly burdensome regulatory and operating environment.⁶⁸ A September 2018 Supreme Court judgement halted the use of Aadhaar-based KYC for instant and paperless on-boarding of customers, severely denting the customer acquisition process and slowing the expansion efforts of new licensees. In acknowledging the difficult operating environment faced by payments banks, the RBI released draft guidelines⁶⁹ in September allowing them to apply for a Small Finance Bank (SFB) licence and expand their service offerings into credit. It is not yet clear whether this move to a new licensing model will benefit India’s remaining payments banks. Given that Nigeria’s PSB regime is modelled on India’s, it remains to be seen what lessons will be learned.

62. Bahia, K and Muthiora, B. (2018). *The Mobile Money Regulatory Index*, GSMA.

63. These may take the form of an electronic money issuer, payment service provider or payments bank.

64. The Kenya Information and Communications (Amendment) Bill, 2019 seeks to provide for mandatory legal separation of any other business of telecommunications service provider.

65. Donkin, C. (2019). *Kenya regulators warn MPs on Safaricom split bill*, Mobile World Live.

66. State Bank of Pakistan (2019), *Regulations for Electronic Money Institutions (EMIs)*.

67. Relative to the Branchless Banking Regulations (revised 12 July 2016), the Regulations for Electronic Money Institutions have lower minimum capital requirements.

68. Aditya Birla Payments Bank’s March 2019 decision to wind up its operations within 17 months of its launch has stimulated debate among payments banks, the Reserve Bank of India and other key stakeholders in the ecosystem on the regulatory validity of the payments bank model. Similarly, India Post Payments Bank has sought regulatory approval to operate under a different (more flexible) licensing category – Small Finance Bank – due to the challenges faced by payments banks.

69. Reserve Bank of India (2019). *Draft Guidelines for ‘on tap’ Licensing of Small Finance Banks in the Private Sector*.



Regulators stepped up efforts in 2019 to mainstream mobile money services in national payments infrastructure. In Ghana⁷⁰ and Malawi,⁷¹ this was done through the development of national interoperability projects and payment switches. Several other countries, including Zambia,⁷² Tanzania⁷³ and the eight states of the West African Economic and Monetary Union (WAEMU),⁷⁴ are in advanced stages of developing their own national retail payments interoperability schemes, which will eventually look to integrate mobile payments.⁷⁵

Experience has shown that a payments infrastructure that is mandated and introduced prematurely has no guarantee of long-term success. Governance structure is key to creating a successful, open and equitable payments infrastructure that

provides a level playing field for all participants. Establishing open, continuous and inclusive dialogue with all potential participants in the early stages of development will help create governance models that offer tangible benefits to the mobile money industry and incentives to participate. To ensure the integrity of these schemes, participants from different industries should have an equal voice in the governance structure.

The sum of these developments is that mobile money services are coming of age, earning the trust of regulators and being embraced by countries across emerging markets as a critical part of their national payments infrastructure. It is expected these efforts will continue apace in 2020.

70. Ghana implemented mobile money interoperability in May 2018. The Ghana Interbank Payment and Settlement Systems Limited (GhIPSS) is a wholly owned subsidiary of the Bank of Ghana.

71. Malawi's National Switch, or NatSwitch, launched mobile money interoperability in 2019. NatSwitch is an undertaking of the Bankers Association of Malawi.

72. Implemented for POS and ATM in June 2019. Mobile money will be implemented as part of phase 2.

73. The Bank of Tanzania is said to be deploying Mojaloop, an open source interoperable payment interface developed by The Bill & Melinda Gates Foundation.

74. WAEMU includes Benin, Burkina Faso, Côte d'Ivoire, Guinea-Bissau, Mali, Niger, Senegal and Togo.

75. In WAEMU, the BCEAO is implementing a regional interoperability project to make all types of financial accounts interoperable across all eight countries by mid-2020.



The need for stronger risk management frameworks

In just over a decade, mobile money has become a global story. As providers mature, integrate with other industries, and broaden the scope and scale of their offering, the importance of corporate responsibility has come to the fore. In recognition of this, the GSMA has led the industry to develop the Mobile Money Certification scheme, providing a comprehensive risk management and consumer protection framework.⁷⁶

The first of its kind for mobile money providers,⁷⁷ the scheme is a global initiative to bring safer, more transparent and more resilient financial services to hundreds of millions of

people. It is based on independent assessments of a provider's ability to deliver in eight core areas of business, including providing secure and reliable services, protecting the rights of consumers and combating money laundering and the financing of terrorism.

Certification enhances trust with local regulators, attracts commercial business partners and merchants, encourages other financial institutions to integrate and assures customers that their rights are protected. Since its launch in April 2018, 13 leading mobile money providers have become certified, providing safe and reliable services to 204 million registered customers globally.



76. GSMA (2019). *The GSMA Mobile Money Certification*. See: www.gsma.com/mmc

77. Whether they are a mobile operator, bank or over-the-top provider.

Mobile money taxation

The trend of sector-specific mobile money taxation continued in Sub-Saharan Africa in 2019. Over the course of the year, Côte d'Ivoire, Republic of the Congo, Malawi and Gabon all proposed new mobile money taxes.⁷⁸ Seventy-seven per cent of mobile money providers reported paying such taxes, according to our Global Adoption Survey, whether on fees, transaction values or total revenue.⁷⁹ Twenty-three per cent of those affected said taxation was having a negative impact on the uptake of mobile money services and their business.

To understand this trend, it needs to be viewed in the context of taxation and development. Developing countries are facing growing pressure to raise their tax take as a percentage of GDP to finance much-needed public spending. However, the strength of the informal sector within the economy makes it difficult for governments to mobilise revenues from individuals and MSMEs, so it often becomes easier to focus on corporations instead.⁸⁰ Meanwhile, revenue authorities have had to offset a declining telecom sector tax take from voice and SMS as users move to data and over-the-top services.⁸¹ It is against this backdrop that mobile money taxes have been proposed.

In applying these taxes solely to mobile money transactions, it is not clear that generally accepted tax principles of equity,

certainty, convenience and efficiency are being followed. For instance, since poorer households are more likely to use mobile money services, sector-specific taxation applied to mobile money could be considered regressive and deepen inequality. Equally, by incentivising a move back to cash, tax authorities risk reversing financial inclusion gains and undermining the payments infrastructure that will underpin the digital economy at the heart of many national development plans.⁸² The broader tax base that digital economies inevitably create will therefore be sacrificed for a short-term increase in the tax take. Beyond financial inclusion, mobile money taxation also puts other development goals at risk, including poverty reduction, economic growth and human capital development.

Mobile money has enabled developing countries to achieve unprecedented levels of financial inclusion, and will continue to contribute to broader development goals. When contemplating sector-specific taxation for mobile money, authorities should consider the longer term negative impacts of such policies. Ideally, finance authorities and policymakers should engage in dialogue with the mobile money industry when formulating policies so that, together, they can ensure mobile money continues to have the greatest possible impact on national development agendas.

78. Following discussions with industry stakeholders, Gabon and Malawi subsequently withdrew their proposals.

79. For example, Tanzania has a sales tax on fees, Uganda has a tax on transfer amounts and Côte d'Ivoire has a sector-specific tax on total revenue. This list is not exhaustive.

80. In developing economies, corporate income tax accounts for a higher share of the overall tax than personal income tax – the reverse of developed economies. See: IMF (2011). [Revenue Mobilisation in Developing Countries](#).

81. For an illustration of this, see: World Bank Group (2018), Uganda economic update, 11th edition: financing growth and development – options for raising more domestic revenues, p. 27.

82. For instance, see Uganda's Vision 2040 and Côte d'Ivoire's Etude Nationale Prospective 2040.

Data localisation

In recent years, prompted by concerns about national security, data privacy and other issues,⁸³ several countries have introduced restrictions on the flow of data across borders, including China,⁸⁴ India,⁸⁵ Nigeria⁸⁶ and Vietnam.⁸⁷ These restrictions vary across jurisdictions and may apply either to cloud storage or data processing or, in some instances, both.

Prohibitive rules can prevent the transfer of personal data or metadata across borders. For mobile money providers, this increases infrastructure costs, stifles innovation and prevents improvements to data security. While data localisation is intended to protect consumers and national economies, it can have adverse effects on service providers and may increase costs for consumers. Data localisation requirements can also hamper the ability of mobile money providers to integrate their platforms with other organisations and providers, and to take advantage of services like the cloud.

The cloud provides many benefits for mobile money providers, including more efficient services and the ability to provide the same user experience across different markets. The inability to use these services leads to platforms being replicated for various functions, such as credit scoring and anonymisation of personal data, which increases costs. This, in turn, affects the delivery of key mobile-money related services and may make it prohibitively expensive to deliver them in smaller markets where it could

be deemed impractical to continue operations.

Restrictions on sharing personal data also limits a provider's ability to respond to cyber threats and involve law enforcement agents in a timely manner. For group providers that operate in multiple countries, it can be difficult to use centralised systems for security and compliance functions, such as Anti-Money Laundering and Combating the Financing of Terrorism (AML/CFT) requirements. Data quality can also be negatively affected by fragmented storage in different jurisdictions.⁸⁸

However, there are other ways to address concerns about cross-border data flows. Countries can develop holistic data protection laws that provide an array of mechanisms to allow data to be stored in the cloud and shared across borders while also ensuring an adequate level of protection.⁸⁹ For example, Rwanda recently ratified the AU Convention on Cybercrime and Personal Data Protection (the Malabo Convention), which establishes a comprehensive approach to data privacy that safeguards data rather than adopting a data localisation approach.⁹⁰ Once the Convention is implemented, mobile money providers in Rwanda will be able to remotely store and transfer personal data across borders while ensuring the safety and privacy of the end user. This is an example that other countries could follow, as it preserves the gains in financial inclusion that mobile money has achieved while also promoting the growth of the digital economy.



Strict data localisation requirements limit the ability of providers to store data in the cloud, increasing costs for providers

83. GSMA (2018). [Cross-border data flows: realising benefits and removing barriers](#).

84. China's [Cybersecurity Law](#) that came into effect in June 2017 requires that personal information and "important data" be stored in China.

85. The Reserve Bank of India's recent [directive on data localisation](#) requires all payment system operators to ensure that data is stored only within the country by October 2018. For the foreign leg of the transaction, if any, the data can also be stored in the foreign country, if required. RBI/2017-18/153. See: Reserve Bank of India (2018). [Storage of Payments System Data](#).

86. Nigeria has required all subscriber and consumer data of ICT service providers, as well as all government data, to be stored locally within the country since December 2013 through its Guidelines on Nigerian Content in ICT. See: Nigerian Law Intellectual Property Watch Inc (2019). [Guidelines for Nigerian content development in information and communications technology \(ICT\)](#).

87. In Vietnam, The Law on Cybersecurity came into effect on 1 January 2019, and there were concerns among foreign and Vietnamese enterprises that they would be caught under the law's data localisation requirements despite not having a physical presence in Vietnam. See: [Medianama \(2019\). Vietnam plans to narrow data localisation requirements under its cybersecurity law](#).

88. The Data Quality principle states that personal data should be relevant to the purposes for which it is to be used, and, to the extent necessary for those purposes, should be accurate, complete and kept up to date. See: OECD (2013). [OECD Guidelines on the Protection of Privacy and Transborder Flows of Personal Data](#).

89. GSMA (2019). [Smart Data Privacy Laws](#).

90. African Union (2019). [African Union Convention on Cyber Security and Personal Data Protection](#)



**Beyond one billion
mobile money accounts:**

The foundation for impactful services

Surpassing the one billion mark is a major milestone for the mobile money industry. However, what is not captured in this figure is the empowerment that comes with owning a mobile money account and the ability to access new, life-enhancing products and services through the mobile money ecosystem. This section illustrates how mobile money has become a lynchpin of innovation, enabling a range of partnerships across sectors and vital services for marginalised populations.

From closing the financial inclusion gender gap to unlocking access to essential utility services, delivering urgent humanitarian cash assistance and digitising payments for smallholder farmers, mobile money is helping millions meet their basic daily needs and improve their livelihoods over the long term.

All of this ultimately unlocks new solutions to some of the world's most intractable

development challenges and plays a catalytic role in achieving the SDGs.⁹¹ The insights presented here also demonstrate the potential of mobile money to help achieve the 2030 targets by driving sustainable and inclusive economic growth, and building more resilient communities, businesses and national economies.

Mobile money: driving financial inclusion for women



Mobile money has the potential to increase financial inclusion for women and close the gender gap in access to financial services in low- and middle-income countries (LMICs), which is key to achieving SDG 5 (Gender Equality).

Recent analysis by the GSMA shows that the gender gap in mobile money account ownership across LMICs has only slightly narrowed from 36 per cent in 2014 to 33 per cent in 2017.⁹² However, this aggregated figure masks significant variations in mobile money adoption and use among women in different regions and countries. In many countries across Sub-Saharan Africa, a reduction in the gender gap in overall financial account ownership can be attributed to the simultaneous growth of mobile money. Also, in many countries, the gender gap is

lower with mobile money than with traditional financial services.⁹³

To realise the potential of mobile money to increase financial inclusion for women, it is important to understand and address the barriers that are disproportionately limiting mobile money adoption for women. To explore consumer awareness of mobile money and reasons for not owning a mobile money account, a new set of questions were added to the GSMA Intelligence Consumer Survey, conducted in 14 LMICs.⁹⁴ While the findings focus on those who already own a mobile phone, it is important to note that there is a gender gap in mobile ownership.⁹⁵ This is another major barrier to mobile money access given that mobile ownership is typically a prerequisite for mobile money account ownership.

91. Lopez, M. (2019). *Digital credit for mobile money providers*. GSMA.

92. Delaporte, A. and Naghavi, N. (2019). *The promise of mobile money for further advancing women's financial inclusion*. GSMA Mobile for Development Blog.

93. Ibid.

94. Bangladesh, Brazil, Guatemala, India, Indonesia, Kenya, Mexico, Mozambique, Myanmar, Nigeria, Pakistan, Senegal, South Africa and Uganda. In all countries surveyed, a nationally representative sample of c.1,000 male and female adults aged 18+ were surveyed, with the exception of India where the sample was c.2,000.

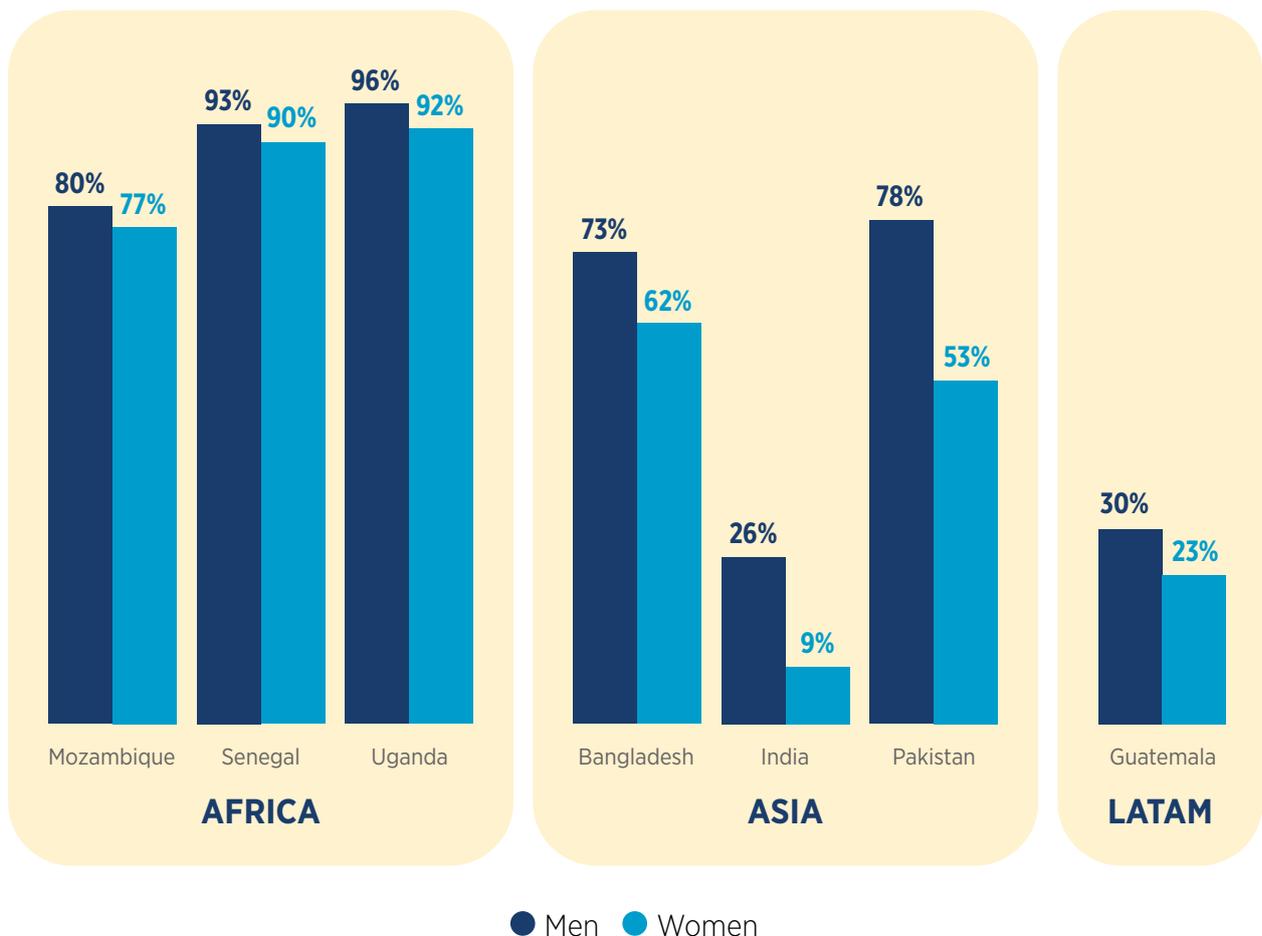
95. GSMA (2020). *The Mobile Gender Gap Report 2020*.

Insight 1:**Low awareness limits women's mobile money use**

The research found that in LMICs, women are significantly less likely to be aware of mobile money than men (see Figure 10). However, there are some country differences. In mature mobile money markets across Africa, there are no significant differences in awareness between men and women. **The awareness gender gap is widest in Asian countries surveyed, where women are consistently less aware of mobile money than men.**

10**Figure 10. Awareness of mobile money among men and women**

Source: GSMA Intelligence Consumer Survey, 2019

(percentage of mobile owners)⁹⁶

Base: Adults aged 18+ who own a mobile handset or have a SIM that they use at least once a month

96. A mobile owner is defined as a person who has sole or main use of a SIM card (or a mobile phone that does not require a SIM), and uses it at least once a month.

Insight 2:

Top barriers to mobile money account ownership are similar for men and women

Respondents across regions were asked to identify the reasons for not owning a mobile money account. The research found that the reasons for not owning a mobile money account are similar for men and women. However, **women account for 56 per cent of those who are financially excluded⁹⁷ so if the reasons cited by both men and women are addressed successfully, women should benefit disproportionately.** Figure 11 shows the reasons for not owning a mobile money account in some of the surveyed countries.

11

Figure 11.
Reasons for not owning a mobile money account

Source: GSMA Intelligence Consumer Survey, 2019

By region

Barriers	Gender	AFRICA		ASIA			LATAM
		Mozambique	Senegal	Bangladesh	India	Pakistan	Guatemala
Preference for cash	M	30%	28%	41%	60%	58%	48%
	W	31%	33%	43%	54%	57%	46%
Alternatives to transfer money	M	31%	28%	39%	60%	48%	46%
	W	26%	28%	50%	57%	39%	40%
Literacy and skills	M	45%	33%	34%	48%	43%	29%
	W	43%	35%	27%	54%	49%	39%
Safety and trust	M	31%	32%	24%	45%	20%	46%
	W	28%	23%	25%	46%	24%	56%
Lack of money	M	24%	31%	18%	46%	33%	28%
	W	30%	29%	14%	33%	43%	42%
Affordability	M	21%	17%	18%	34%	19%	23%
	W	17%	16%	21%	28%	17%	34%
Access to agent	M	34%	16%	15%	22%	20%	27%
	W	28%	13%	7%	19%	17%	28%
Lack of necessary documentation	M	24%	18%	17%	26%	11%	16%
	W	12%	13%	15%	18%	9%	19%
Family does not approve	M	8%	11%	10%	22%	12%	22%
	W	8%	8%	13%	31%	23%	19%

Base: Adults aged 18+ who own a mobile handset or have a SIM that they use at least once a month and don't have a mobile money account, despite being aware of mobile money services. Percentages indicate the proportion of respondents who answered "This is something that stops me from having a mobile money account".

Insight 3:**Preference for cash is the main reason for not owning a mobile money account**

Having alternative means of transacting and low literacy, digital and financial skills were the two other most-cited reasons for not owning a mobile money account. To increase the number of female mobile money customers and narrow the gender gap, it is crucial for providers to understand the gender composition of their customer base. Global Adoption Survey data suggest that **59 per cent of providers monitor the gender composition of their mobile money account customer base**, primarily through SIM or mobile money KYC data. However, in many

countries, the subscriber and user of a mobile service are often not the same, and women users are often underestimated. Therefore, the GSMA is developing a mobile money-focused addition to its Gender Analysis and Identification Toolkit,⁹⁸ a tool that will use machine learning to accurately predict the gender of mobile money subscribers, while also offering providers a range of actionable insights to better target existing and potential female customers. This will be made available to mobile money providers in 2020.

Mobile money: unlocking access to essential utility services



The mobile money industry is playing a catalytic role in expanding the reach of utility services, which is critical to achieving SDG 6 (Clean Water and Sanitation) and SDG 7 (Affordable and Clean Energy).

Billions of people around the world still do not have access to basic utility services. **1.1 billion lack access to electricity,⁹⁹ 2.2 billion lack access to safely managed drinking water¹⁰⁰ and two billion lack access to basic sanitation facilities.¹⁰¹** Inadequate or unreliable access to basic utility services stunts economic growth and prevents individuals and communities from realising their full economic potential.

To address this challenge, centralised utilities in several countries, including Kenya and Uganda, have been implementing mobile money solutions to make payment collections faster and more secure, to improve revenue recovery and to invest in their service

coverage.¹⁰² At the same time, “off-grid” innovators are developing decentralised, customer-centric solutions that use small mobile payments to serve remote low-income communities. For example, the rise of pay-as-you-go (PAYG) models are allowing customers to acquire otherwise unattainable assets through regular small instalments via mobile money.

Payments for utility services, such as energy and water, account for 44 per cent of the value of all bill payments processed via mobile money services globally. This is primarily driven by markets in Sub-Saharan Africa and South Asia where there are major access gaps in utility services, and utility payments account for 53 per cent and 55 per cent of the total value of bill payments processed via mobile money, respectively. On average, mobile money providers are integrated with 11 utility companies.

98. GSMA (2018). *The GSMA's Gender Analysis and Identification Toolkit (GAIT)*.

99. International Energy Agency (2017). *Energy Access Outlook*.

100. JMP (2019). *Updated estimates available for household drinking water, sanitation and hygiene*.

101. Ibid.

102. CGAP and GSMA (2019). *Testing the Waters: Digital Payments for Water and Sanitation*.



409

**utility companies
with a mobile
money bill
payment account**



44%

**of the total value of
mobile money bill
payments are for
utilities**

Beyond making centralised utilities more efficient, mobile money has been instrumental in supporting the rapidly growing PAYG sector – a particularly successful model in the energy space. Two million solar home systems (SHS) were sold on a PAYG basis in 2018 alone,¹⁰³ and PAYG solar providers captured 91 per cent of the \$500 million invested in the off-grid energy sector in 2018.¹⁰⁴ Increasingly, we are seeing a reverse relationship: the use of mobile money for utility payments is propelling overall mobile money use. A recent GSMA impact study in five markets in West Africa showed that a significant proportion of new PAYG users were either first-time mobile

money users or reactivated their account (after 90 days of inactivity).

Through the help of patient seed funding from programmes such as GSMA Mobile for Development Utilities, the PAYG model is spreading to other areas like water, energy-efficient appliances, cooking gas and even smartphones.¹⁰⁵ **Seventy-four per cent of organisations that received support from the GSMA's M4D Utilities Innovation Fund use mobile money in their business model,**¹⁰⁶ a clear sign that mobile money is helping to build and scale sustainable businesses.

103. GOGLA (2019). [Global Off-Grid Solar Market Report](#).

104. Wood Mackenzie (2019). [Strategic investments in energy access](#).

105. GSMA (2019). [Intelligent Utilities for All](#).

106. GSMA (2019). [Mobile for Development Utilities Innovation Fund Grantee portfolio](#).



CityTaps: leveraging mobile money to provide affordable, safely managed water to the urban poor

Problem: Water supply disconnections due to non-payment or administrative errors are a common issue for urban residents of Niamey, Niger, who are forced to rely on unsafe and expensive water from water vendors.

Solution: CityTaps, one of the grantees of the GSMA M4D Utilities Innovation Fund, has developed a smart prepaid water meter solution that uses Orange Money and Machine to Machine technologies to allow households to pre-pay for water using mobile money, in any amount and at any time. The same model is being implemented in Burkina Faso in partnership with Orange Money.

As of October 2019, CityTaps has installed 1,325 of its CTMeters, directly benefiting 13,250 people.

Social impact:

- **Time and cost savings:** Women and children in Niamey used to spend an average of 1.5 hours a day collecting water. After becoming CityTaps customers, this time was reduced to seven minutes, freeing up over 85 minutes a day for other economic and social activities. Customers reported savings of up to 94 per cent on their monthly water bill.

Commercial impact:

- **Increased mobile money adoption and use:** 15 per cent of CityTaps customers were first-time Orange Money users. 95.5 per cent of those already using Orange Money reported increased use after becoming CityTaps clients.

Mobile money: enhancing the delivery of humanitarian cash assistance

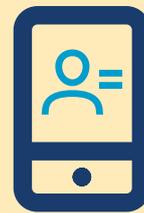


Mobile money can be a powerful mechanism to deliver humanitarian assistance, which contributes to achieving SDG 10 (Reduced Inequalities).

At the end of 2018, there were **70.8 million forcibly displaced persons worldwide** — 25.9 million refugees, 41.3 million internally displaced people (IDPs) and 3.5 million asylum seekers.¹⁰⁷ To reach as many people as possible, the humanitarian sector is transitioning away from in-kind material aid to cash assistance, with the prevailing recommendation to always consider cash in contexts where it is appropriate and feasible.¹⁰⁸ Cash provides recipients with greater dignity and choice as they can decide for themselves what they need.

As part of this shift to cash, humanitarian organisations are increasingly going digital. Since 2017, mobile money platforms have been used to deliver cash and voucher assistance (CVA)¹⁰⁹ in at least 44 countries — almost half of all countries with a live mobile money service (see Figure 12). In our 2019 Global Adoption Survey, **60 per cent of mobile money providers reported partnering with a humanitarian organisation** to deliver mobile money-enabled CVA.¹¹⁰

In doing so, the mobile money industry has enabled digital cash assistance to be delivered to over 2.7 million unique mobile money accounts used by people affected by crisis.



2.7M

Digital cash assistance delivered to over 2.7m unique mobile money accounts

For both humanitarian organisations and recipients, mobile money-enabled CVA offers a range of benefits over physical cash. While organisations see operational benefits, such as greater transparency, accountability, speed and cost effectiveness, affected populations experience greater dignity, flexibility, security and opportunities for financial inclusion.

107. UNHCR (2019). [Global trends. Forced displacement in 2018](#).

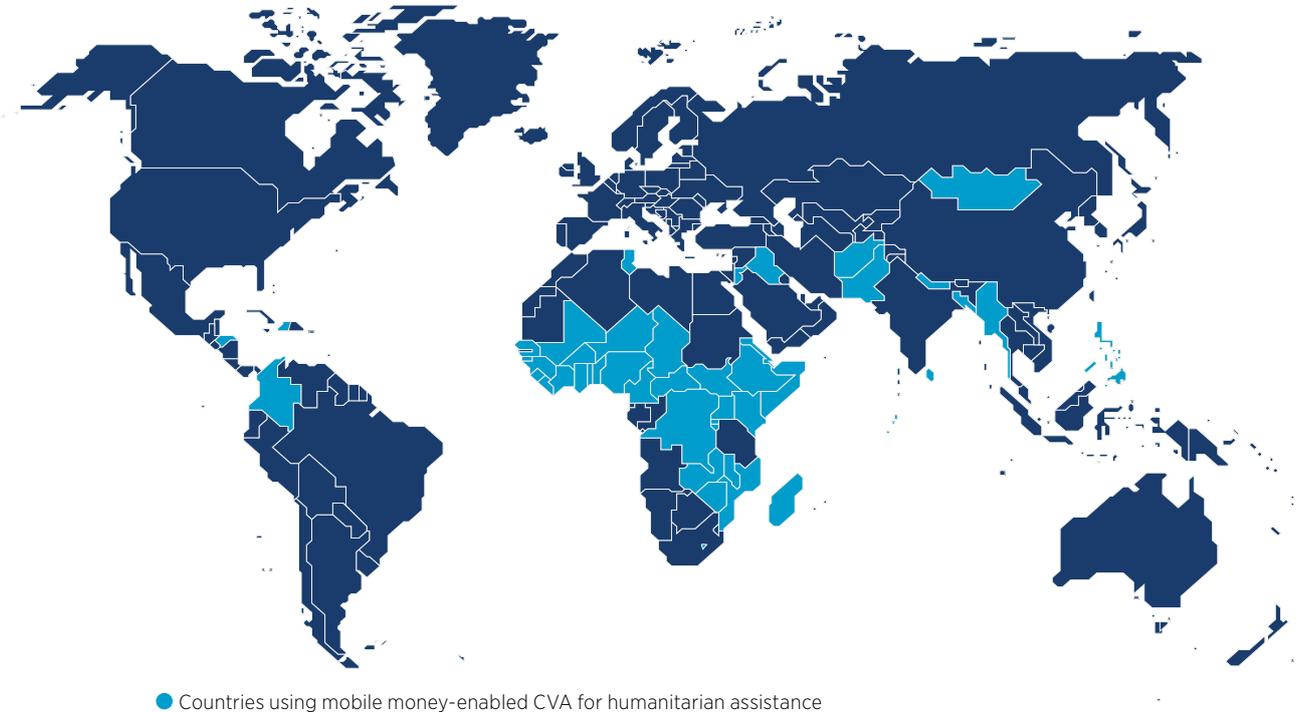
108. Baah, B. (2019). [Mobilising Cash and Voucher Assistance Programmes: The Case for Mobile Money](#), GSMA.

109. Cash and voucher assistance (CVA) refers to all programmes where cash transfers or vouchers for goods or services are directly provided to recipients. See: CaLP (2019). [Glossary of terminology for cash and voucher assistance](#).

110. Mobile money-enabled CVA refers to cash transfers delivered directly to a recipient's mobile money account, which enables access to a suite of services offered by mobile money providers.

12 **Figure 12. Countries using mobile money-enabled CVA for humanitarian assistance¹¹¹**

(percentage of mobile owners)



Mobile money-enabled CVA: growing evidence of financial inclusion

The potential of cash transfers must be understood beyond their ability to address the immediate needs of recipients, especially given the protracted nature of many crises. Conventional financial services providers, such as banks, typically offer restricted accounts for withdrawing CVA that are often closed once a cash assistance programme ends.

Fully-fledged mobile money accounts, on the other hand, can link people to formal financial services with a suite of basic use cases, such as domestic P2P transfers, and advanced use

cases, such as merchant payments, savings, credit and insurance. Evidence is growing that the use of mobile money to disburse cash transfers is enhancing financial inclusion. In a study evaluating humanitarian cash transfers in Uganda, GiveDirectly found considerable improvement in financial inclusion by the end of the programme,¹¹² and ELAN RDC's study of multipurpose cash transfers delivered through mobile money captures the potential of mobile money as a modality for humanitarian cash transfer, including to increase financial inclusion.¹¹³

111. Note that this map represents countries where at least one mobile money provider stated in the 2018 and 2019 Mobile Money Global Adoption Surveys that they partner with at least one humanitarian organisation to deliver CVA, combined with research by the GSMA Mobile for Humanitarian Innovation (M4H) programme. Countries include Afghanistan, Bangladesh, Benin, Burkina Faso, Burundi, Cameroon, Central African Republic, Chad, Colombia, Democratic Republic of Congo, Côte d'Ivoire, Ethiopia, Ghana, Guinea, Guinea-Bissau, Haiti, Honduras, Iraq, Jordan, Kenya, Lesotho, Liberia, Madagascar, Malawi, Maldives, Mali, Mongolia, Mozambique, Myanmar, Nepal, Niger, Nigeria, Pakistan, Philippines, Rwanda, Senegal, Sierra Leone, Somalia (Somaliland), Sri Lanka, Togo, Tunisia, Uganda, Zambia, Zimbabwe.

112. Give Directly (2018). *From subsistence to rebuilding: An internal evaluation of large cash transfers to refugees and host communities in Uganda*.

113. ELAN RDC (2019). *Humanitarian cash transfers by mobile money: towards the financial inclusion of Burundian refugees in South Kivu, Democratic Republic of Congo (DRC)*.

Mobile money: bridging the financial inclusion gap in rural areas through digitising agricultural value chain payments



By making agricultural value chains more efficient and helping agricultural producers access financial services, the mobile money industry is contributing to achieving SDG 2 (Zero Hunger).

In developing regions, about **500 million smallholder farmer households** depend on agriculture for their livelihoods. A significant proportion of the labour force in developing countries is engaged in agriculture: about 54 per cent are employed in agriculture in Sub-Saharan Africa, 44 per cent in South Asia and 14 per cent in Latin America.¹¹⁴

However, the vast majority of smallholder farmers are still unbanked and operate primarily in a cash economy. Given the dominance of cash, farmers and agribusinesses must deal with a range of inefficiencies in agricultural value chains, including theft, fraud and lack of visibility into financial transactions. Most farmers have low access to financial services, with around 75 per cent of adults in developing countries receiving payments for agricultural products in cash.¹¹⁵

By digitising business-to-person (B2P) payments in agricultural value chains, **mobile money is bridging the financial inclusion gap in rural areas.** According to our 2019 Global Adoption Survey, around 10 per cent of mobile money providers globally have partnerships with companies in the agricultural sector, such as agribusinesses and cooperatives, to digitise value chain payments to smallholder farmers. Of these, 75 per cent are in Sub-Saharan Africa while around 11 per cent are in South Asia and Latin America.

To invest in new assets, improve productivity and ultimately increase their income, farmers must be able to access sophisticated financial services, such as tailored credit and insurance services. These can also provide farmers with the financial safety net they need to become more resilient to the effects of climate change. However, all these services require an economic identity.¹¹⁶ Using mobile money to digitise B2P payments, combined with farm and farmer data points gathered by a growing number of last-mile digitisation initiatives, can generate financial footprints for farmers to create an economic identity.

114. World Bank Group (2019). Employment in agriculture (% of total employment) (modelled ILO estimate), average calculated for low-and-middle income countries with estimates.

115. World Bank Group (2018). [The Global Findex Database 2017](#).

116. An "economic identity" is a form of functional identity, as its purpose is to enable access to a specific set of services (such as access to credit, insurance and savings products).



MTN Ghana's mAgric digitises the cocoa value chain

MTN Ghana's mAgric is a successful example of a mobile-based tool that digitises the entire procurement process in the agricultural last mile. It allows an agribusiness to record crop procurement from farmers digitally via a mobile app and then pay them instantly for their produce via mobile money. mAgric aims to address the inefficiencies of cash-based payments and the challenges of using paper-based systems.

mAgric currently targets farmers and agribusinesses in Ghana's cocoa value chain. Cocoa is the main source of income for over 800,000 smallholder farmers in Ghana,¹¹⁷ and is also the country's most important cash crop and second-largest export commodity after gold. MTN Ghana is keen to expand the use of the solution across more value chains,

agribusinesses and smallholder farmers. It recently launched the Poultry Value Chain Network Programme to introduce mobile money payments to smallholder poultry farmers in the Bono region.¹¹⁸

Testimonials from cocoa farmers enrolled in the service reveal that mobile money payments have reduced travel and waiting time for payments, increased payment security and improved financial stability through better money management. Many farmers have also said that they use MTN Mobile Money more frequently to pay for school fees, transfer money to friends and family and save money in their account. Agribusinesses using the service have also appreciated not having to stockpile cash during harvest season.

117. Tricarico, D. (2019). [Learning first-hand how farmers experience last mile digitisation: Ghana Field Focus Week lessons, Part One](#). Mobile for Development Blog.

118. Sarpong Mfum, M. (2019). [MTN launches MoMo poultry value chain project at Dormaa](#). City Newsroom.

Conclusion

2019 marked a decisive step towards a digital future for all, as the number of mobile money subscribers topped one billion and industry trends showed that digital financial transactions are becoming part of everyday life for more people around the world.

Not only are more people using their mobile money accounts more often, they are also using a breadth of services and relying less on cash. The industry is processing nearly \$2 billion in transactions every day, with annual transactions expected to surpass \$1 trillion dollars by 2023. For the first time in 2019, digital transactions accounted for most mobile money flows and more value is circulating in the mobile money system than ever before. Could this be a signal of growing relevance and the shift from cash to digital that the industry has been waiting for?

Mobile money services made important headway in 2019, especially with users who stand to reap the greatest benefits. This growth has meant even more women in emerging markets are making payments and accessing vital financial services from where they live and work, providing a safer and more efficient way to pay for their children's school fees, light their homes and access credit for their businesses. Forcibly displaced persons without identity documents or bank accounts in host communities were able to receive humanitarian cash assistance through their mobile phones and make financial decisions with more independence and dignity. Smallholder farmers were also given the ability to receive payments for their crops digitally, saving them time and transportation costs. For millions of the world's most vulnerable, mobile money services can be the key to greater financial security and inclusion.

All these examples are a testament to the critical role the mobile money industry is playing in advancing digital financial inclusion and achieving the SDGs. Of course, these

contributions can only endure if the industry continues to thrive and remains commercially viable.

As we enter a new decade, the industry faces new challenges, especially sector-specific taxation, data localisation requirements and government-led interoperability solutions that do not take operational and commercial mobile money models into account. All these threaten to stifle innovation and affect the ability of the industry to contribute to digital financial inclusion and the SDGs.

While mobile money has taken us a long way in a relatively short time, there is still much to be done to close the digital divide and bring more people into the financial system. Increased access to financial services is a cornerstone of prosperity and many challenges continue to impede efforts to reach the underserved. However, the future promises to bring new opportunities. The rise of smartphones alongside the 'payments as a platform' model will empower millions of young entrepreneurs, innovators and small businesses by opening access to new skills and income-generating opportunities.

Seizing these opportunities, tackling challenges such as digital literacy and creating economies of scale to reach the last mile, will require a collective, cooperative effort across the mobile money ecosystem. Keeping the needs of the underserved at the centre of stakeholder dialogue will remain the most potent force for digital financial inclusion and expanding the reach of mobile money.



Appendix

This report provides a quantitative assessment of the state of the mobile money industry based on GSMA data from the Mobile Money Deployment Tracker, the 2019 Global Adoption Survey on Mobile Money, and Mobile Money Estimates & Forecasts.

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

Appendix A: Methodology

GSMA Mobile Money Deployment Tracker¹¹⁹

The Mobile Money Deployment Tracker monitors the number of live mobile money services across the globe, collated using both primary and secondary sources on a monthly basis. It also contains information about each

live deployment, such as the name of the organisation 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.

The GSMA Global Adoption Survey on Mobile Money

This 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 2019 survey. Respondents supplied standardised operational metrics about their services for the months of September 2018, December 2018, March 2019, and June 2019, on a confidential basis.

A total of 104 service providers from 60 countries participated in the 2019 survey. The full list of survey participants is included in Appendix C.

We would like to also acknowledge BIMA, Inclusivity Solutions, and MicroEnsure for their contribution towards the mobile-enabled insurance section of this publication.

¹¹⁹ GSMA (2020). Mobile Money Deployment Tracker. See: www.gsma.com/mobilemoneymetrics/#deployment-tracker

GSMA Mobile Money Estimates & Forecasts

The GSMA Mobile Money programme uses a proprietary modelling approach to estimate mobile money indicators at a global, regional and country level. This allows us to fill gaps in participation in the annual Global Adoption Survey and generate aggregate numbers for the State of the Industry reports. Our methodology was developed in partnership with GSMA Intelligence team, combining both GSMA Intelligence’s analytical and telecoms expertise as well as the Mobile Money Programme’s industry knowledge.

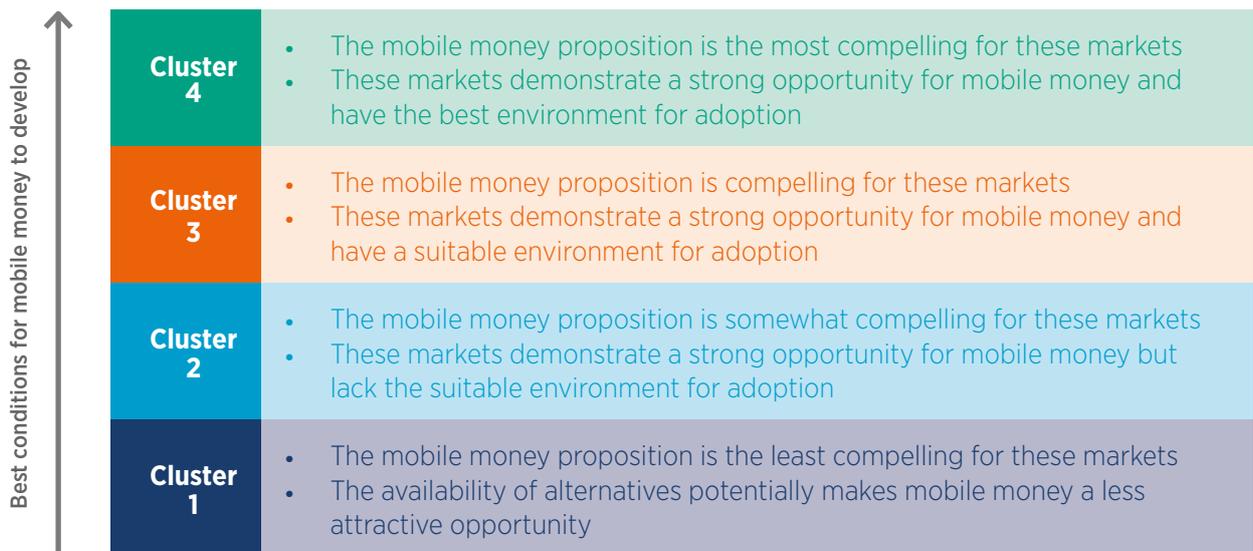
Our dataset covers 21 metrics across three main categories for all providers that offer or have offered mobile money services. The categories within the dataset are as follows: mobile money accounts (registered accounts, active 90 days, active 30 days), mobile money agents (registered agents, active agents), and mobile money transactions (volume and value of mobile money transactions processed via the following products: airtime top-ups, bill payments, bulk disbursements, cash-ins, cash-outs, international remittances, merchant payments and P2P transfers). Our methodology combines multiple approaches to market sizing, following the below five main steps:

1. Consolidation of industry data

This step involved creating a pool of industry data from publicly available data such as operator and regulator reports to complement the data collected via our annual Global Adoption Surveys. We created a comprehensive set of historical data reflecting the growth of the mobile money industry after reconciling this pool of data with our definitions.

2. Country-clustering

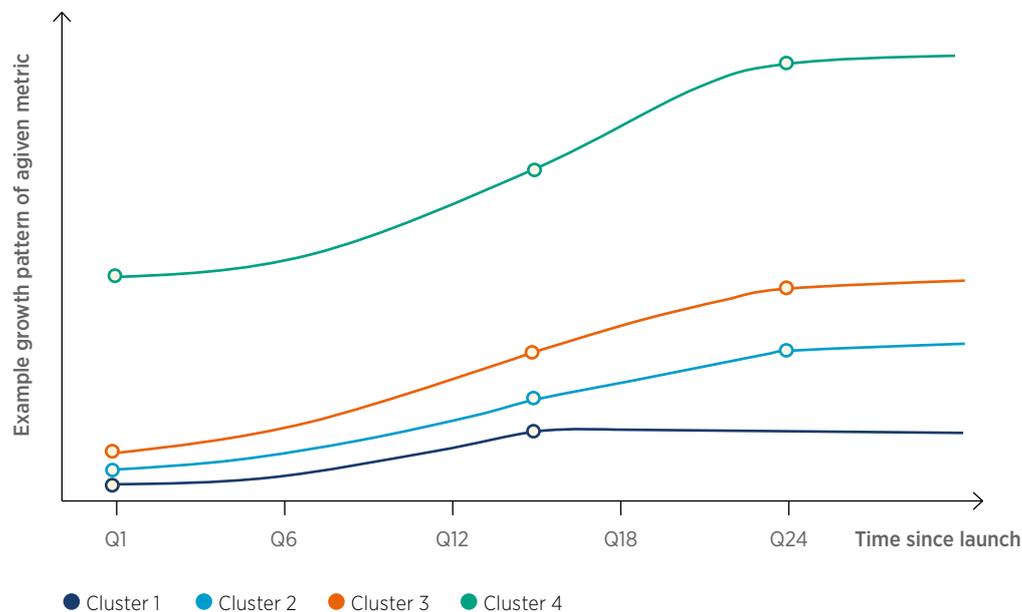
Countries were clustered based on fundamental conditions of mobile and banking adoption in each country, as well as criteria for mobile money success identified through a joint study with Harvard Business School.¹²⁰ The clusters were further shaped based on the Mobile Money Programme’s market knowledge. As a result, we clustered countries into four clusters, based on how compelling mobile money proposition is for that group of countries.



120. Naghavi, N., Shulist, J., Cole, S., Kendall, J. and Xiong, W. (2016). Success factors for mobile money services: A quantitative assessment of success factors. GSMA.

3. Formulation of guiding principles

We developed guiding principles to determine how a given metric is expected to evolve. An example set of guiding principles for growth patterns of a given metric:



4. Modelling

The fourth step is about producing the country estimates, which are built using a ‘bottom-up’ approach, i.e. starting at the service-level. Each country has a Microsoft Excel model prepared using compiled industry data (from step 1 of methodology) and for each service in the market (updated from the Mobile Money Deployment Tracker). Modelling assumptions to estimate missing historical data and to produce a forecast, are informed by the guiding principles, the latest secondary research and GSMA Mobile Money Programme’s market knowledge.

5. Validation

Once the modelling is complete, we review the output at service, country and global level. At this step, we identify any outliers and check for further explanation. This validation process requires a close collaboration between GSMA Intelligence and Mobile Money Programme’s market experts.

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	<p>In the case of mobile money, an agent outlet is a location where one or several provider-issued tills are used to conduct transactions for clients. 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. In some markets, an agent outlet can also operate tills issued by several providers; these are generally referred to as shared or non-exclusive outlets. 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.</p> <p>An active agent outlet is an agent outlet where any of the tills were used to facilitate at least one transaction within the last 30 days.</p> <p>Agent tills are provider-issued “lines”, which can be SIM cards or POS machines, authorised and used to facilitate mobile money transactions.</p>
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).

Application programming interface (API)	For the mobile money industry, an application programming interface is the set of design principles, objects, and behaviours for software developers to enable interactions between mobile money platforms and vendors.
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 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 or payments made by a government to a recipient's mobile money account, or payments made by development organisations to beneficiaries.
Cash-in	The process by which a customer credits their mobile money 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.



Country corridor	For international remittances, a country corridor is a unique combination of a sending country and a receiving country. For example, Kenya to-Tanzania and Tanzania-to-Kenya represents two distinct country corridors.
Credit enabled by mobile money	<p>Credit enabled by mobile money uses the mobile phone to provide microcredit to customers. The GSMA Mobile Money programme tracks credit services enabled by mobile money which meet the following criteria:</p> <ul style="list-style-type: none">• To use the service, the customer must have a mobile money account.• The service allows subscribers to borrow a certain amount of money that they agree to repay within a specified period of time.• Customers can be mobile money agents, mobile money users, or merchants accepting mobile money.• The loan must be disbursed and repaid electronically directly to/from the mobile money account. Services that offer collateralised lease-to-own assets, such as solar home systems, are not included.• The credit service should be technically integrated with the mobile money account and rely heavily on mobile technology throughout the customer journey.• Services where the mobile phone is used as just another channel to access a traditional credit product should not be included.• The service must be available for customers on any types of mobile device (including smartphones apps).
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 per cent of the value stored in their accounts. That said, bank deposits are able to earn interest, while e-money traditionally cannot.

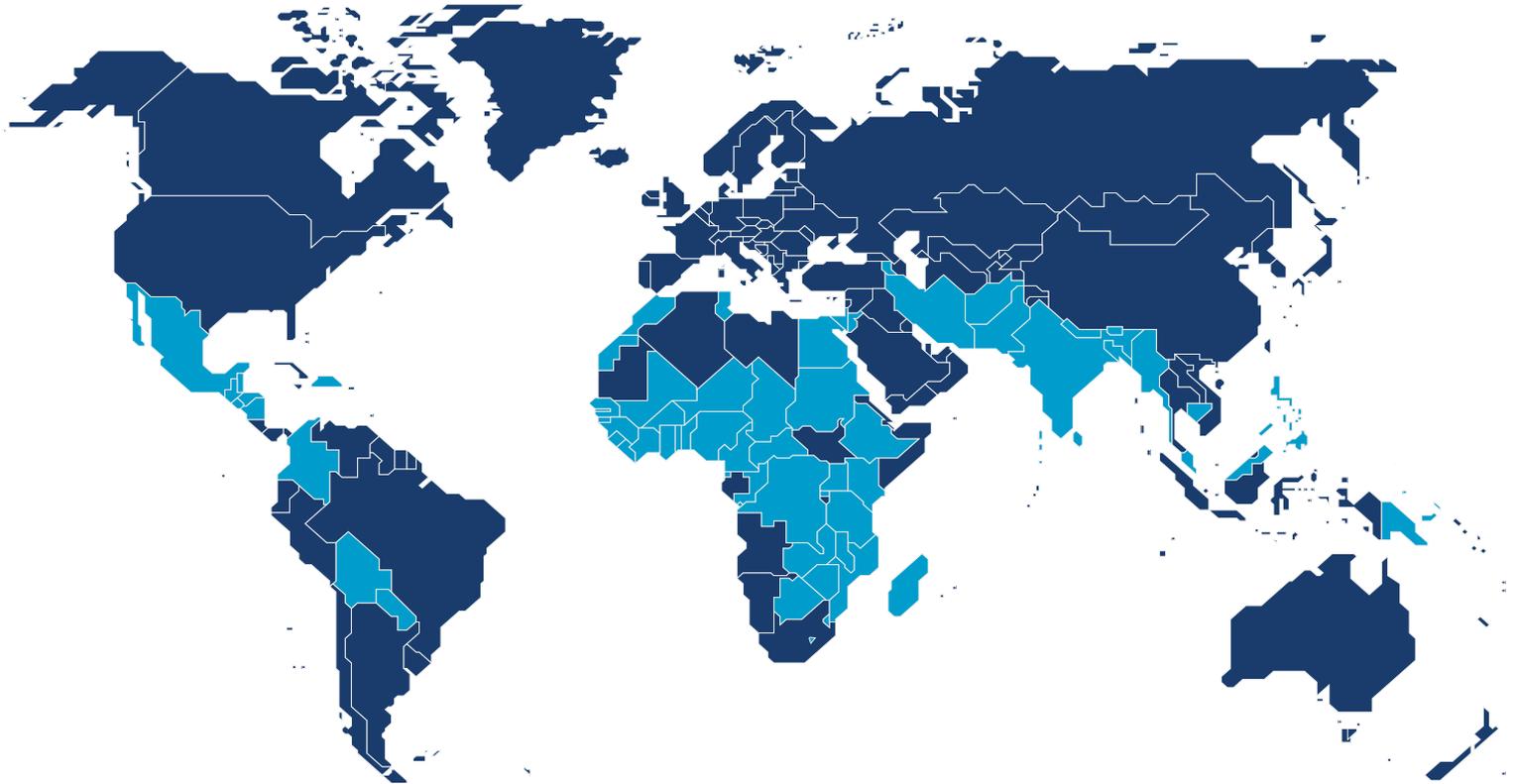
Escrow (trust) account	To ensure that a customer's money is available when the customer wants to redeem it, regulators typically require that the non-bank mobile money provider maintain liquid assets equal in value to the amount of money issued electronically. These funds are usually pooled and held 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.
International remittance enabled by mobile money	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.

Insurance enabled by mobile money	<p>Insurance enabled by mobile money uses the mobile phone to provide micro-insurance services. GSMA Mobile Money tracks insurance products enabled by mobile money which meet the following criteria:</p> <ul style="list-style-type: none">• To use the service, the customer must have a mobile money account.• The service must allow customers to manage risks by providing a guarantee of compensation for specified loss, damage, illness or death.• The customers should be able to pay the premium using the mobile account, and receive the claim using the mobile account (unless the beneficiary mobile money account has exceeded the limit, or the beneficiary does not have a mobile money account).• The insurance product should be technically integrated with the mobile money account, and rely heavily on mobile technology throughout the customer journey.• Services where the mobile phone is just another channel for the clients of an insurance company to access a traditional insurance product should not be included.• The service must offer customers an interface for managing the insurance product for customers that is available on mobile devices (SMS, USSD, call centre, smartphone app).
Know-Your-Customer (KYC)	<p>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 that 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.</p> <p>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.</p>
Liquidity management	<p>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).</p>

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 financial services (MFS)	The use of a mobile phone to access financial services and execute financial transactions. This includes both transactional and non-transactional services, such as viewing financial information on a user's mobile phone. Mobile money, mobile insurance, mobile credit and mobile savings are mobile financial services.
Mobile insurance	Insurance enabled by mobile, broadly speaking. This includes insurance enabled by mobile money, as well as insurance that leverages airtime channels for premium payments.
Mobile money	<p>In 2018, we revised our definition of mobile money. Now, a service is considered a mobile money service if it meets the following criteria:</p> <ul style="list-style-type: none">• A mobile money service includes transferring money and making and receiving payments using the mobile phone.• The service must be available to the unbanked, e.g. people who do not have access to a formal account at a financial institution.• The service must offer a network of physical transactional points which can include agents, outside of bank branches and ATMs, that make the service widely accessible to everyone.• Mobile banking or payment services (such as Apple Pay and Google Wallet) that offer the mobile phone as just another channel to access a traditional banking product are not included.• Payment services linked to a traditional banking product or credit card, such as Apple Pay and Google Wallet, are not included.
Mobile money account (Registered / Active)	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).



Appendix C: 2019 Survey participants



● Mobile Money Survey Participants 2019

SUB-SAHARAN AFRICA	
Benin	Moov
Botswana	BotswanaPost, Orange
Burkina Faso	Orange, Société Générale
Cameroon	MTN, Orange, Société Générale
Central African Republic	Orange
Congo	MTN
Congo, Democratic Republic of	Africell, Orange, Vodacom
Côte d'Ivoire	MTN, Orange, Société Générale
Ethiopia	M-BIRR
Gambia	Africell, Qcell
Ghana	AirtelTigo, MTN, Vodafone, Société Générale, Zeepay
Guinea	MTN, Orange, Société Générale
Guinea-Bissau	MTN, Orange
Kenya	Safaricom
Lesotho	EcoCash, Vodacom
Liberia	MTN, Orange
Madagascar	Telma, Orange
Malawi	TNM, Zoon
Mali	Orange
Mozambique	Vodacom
Niger	Orange
Nigeria	Access Bank, Cellulant, Teasy Mobile
Rwanda	MTN
Senegal	Free, Orange, Société Générale
Sierra Leone	Africell, Orange
Sudan	Sudani, MTN
Swaziland	MTN
Tanzania	Tigo, Vodacom
Togo	Moov
Uganda	Africell, MTN
Zambia	MTN, Virtual Space Limited, Zoon
Zimbabwe	Econet Wireless, NetOne, Telecel

SOUTH ASIA	
Afghanistan	Roshan
Bangladesh	First Security Islami Bank Limited, Robi, Grameenphone
India	Airtel Payments Bank, Eko
Maldives	Dhiraagu, Ooredoo
Nepal	FonePay
Pakistan	Habib Bank, Jazz, Telenor, UBL Bank
Sri Lanka	Mobitel

LATIN AMERICA AND THE CARRIBEAN	
Bolivia	Tigo
Colombia	BanColombia, DaviPlata
Dominican Republic	Claro
El Salvador	Tigo
Guatemala	Tigo
Haiti	Digicel, Haitipay
Honduras	Tigo
Mexico	Telcel
Nicaragua	Banpro Grupo Promerica
Paraguay	Claro, Personal, Tigo

EAST ASIA AND PACIFIC	
Cambodia	Smart, WING
Malaysia	DiGi
Myanmar	Telenor
Papua New Guinea	NationWide MicroBank
Philippines	PayMaya

MIDDLE EAST AND NORTH AFRICA	
Egypt	Orange
Iran	Jiring Co.
Jordan	Zain
Morocco	Al Barid Bank
Tunisia	Orange

EUROPE AND CENTRAL ASIA	
Armenia	VivaCell-MTS



gsma.com/sotir



For more content, visit gsma.com/sotir



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

