GSMA

The State of the Industry Report on Mobile Money 2024

GSMA

The GSMA is a global organisation unifying the mobile ecosystem to discover, develop and deliver innovation foundational to positive business environments and societal change. Our vision is to unlock the full power of connectivity so that people, industry and society thrive. Representing mobile operators and organisations across the mobile ecosystem and adjacent industries, the GSMA delivers for its members across three broad pillars: Connectivity for Good, Industry Services and Solutions and Outreach. This activity includes advancing policy, tackling today's biggest societal challenges, underpinning the technology and interoperability that make mobile work and providing the world's largest platform to convene the mobile ecosystem at the MWC and M360 series of events.

We invite you to find out more at **gsma.com**

Follow the GSMA on Twitter: **@GSMA**

Mobile Money

The GSMA 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
Social media: @GSMAMobileMoney
Email: mobilemoney@gsma.com

BILL & MELINDA GATES foundation

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

Authors
The State of the Industry Report on Mobile Money 2024 was prepared by the GSMA Mobile Money programme's Data & Insights team. The team comprised Rishi Raithatha and Gianluca Storchi.

Marketing support was provided by Ana Forjaz and Vincent Keung. Project management support was provided by Duncan Ramsbotham.

Contributors
Anna Colquhoun, Ashley Olson Onyango, Christopher Lowe, Daniele Tricarico, George Bauer, Isabelle Carboni, Kara Norton, Lisa Chassin, Mary Gichuki, Max Cuvellier Giacomelli, Nadia Jeffrie, Nigham Shahid, Panos Loukos, Rebecca Spriggs, Winnie Wambugu and Zach White.

External contributors
Vibhor Jain (independent consultant), Aramé Awanis (independent consultant), Leslie Arathoon (independent consultant), Leora Klapper (World Bank), the International Finance Corporation (IFC) and the Banque Centrale des Etats de l'Afrique de l'Ouest (BCEAO).

The State of the Industry Report on Mobile Money 2024 is based on data collected from the Global Adoption Survey 2023 and the 2023 GSMA Consumer Survey.

For more content and data, visit gsma.com/sotir

Foreword from Mats Granryd

Director General of the GSMA and a Member of the Board

For over two decades mobile money services have grown exponentially, driving financial inclusion for billions of people, opening up incredible opportunities for entrepreneurs and small businesses across the world. Today, 1.75 billion registered accounts are processing $1.4 trillion a year, or about $2.7 million a minute. Truly remarkable numbers.

Over the years, Sub-Saharan Africa has been a key driver of mobile money's success, home to almost three-quarters of the world's accounts. In the past 10 years, West Africa has emerged as a key player with the number of registered mobile money accounts doubling between 2013 and 2023, driven mostly by growth in Nigeria, Ghana and Senegal.

As the industry continues to grow, we see it maturing. In the 10 years to 2022, mobile money contributed $600 billion to the GDP of countries with a mobile money service.

Use cases are also evolving as mobile money users shift away from basic transactions to more varied services. International remittances are now one of the fastest growing use cases of mobile money, while merchant payments expanded by 14% to almost $74 billion in 2023. Average revenue per user also increased by 40% between September 2022 and June 2023, despite slowing account and transaction growth rates. This clearly demonstrates the commercial potential of mobile financial services.

Of course, mobile money also remains a leading driver of the United Nations Sustainable Development Goals (SDGs), contributing to 15 of the 17 goals, including SDG 11 (Sustainable cities and communities) and SDG 12 (Responsible consumption and production).

As mobile money continues to grow and evolve, it opens up even more opportunities for citizens, businesses and economies across the world.

Today millions of users are making or receiving payments, taking out productive credit to meet short-term financing needs, paying for government services or accessing savings and insurance products to protect themselves from shocks.

Over the past 10 years we have seen incredible growth across the industry, but perhaps even more exciting than this are the opportunities that lie ahead as the ecosystem continues to mature. As you read this report, I trust you will be encouraged by the growth of the industry so far, and inspired by the incredible potential that it holds as we work to drive financial inclusion and build stronger more resilient economies across the world.

Mats Granryd
Director General, GSMA

This report was prepared by the GSMA's Mobile Money programme in collaboration with the mobile money industry, and with the generous support of the Bill & Melinda Gates Foundation.

Editorial

Every year, the team behind the State of the Industry Report (SOTIR) is challenged – both internally and externally – on what new angle or analysis we plan to pursue. Internally, we are helped by a growing industry database: having over ten years of data has enabled us to demonstrate that mobile money truly is an African success story.

While this year's report shows that Sub-Saharan Africa has the highest levels of global mobile money adoption, mobile money had increased gross domestic product in the region by more than $150 billion or 3.7% between 2013 and 2022.

Externally, we invited the World Bank to contribute to last year's report (SOTIR 2023). This experiment worked well: many readers we spoke to liked this type of collaboration, where peers covering the same space could work together. Similar organisations asked if we might welcome their contributions. This gave us the confidence to continue innovating – as the industry continues to evolve, the report that covers it should too. We're delighted to include contributions from the World Bank, the International Finance Corporation and the Banque Centrale des Etats de l'Afrique de l'Ouest (the Central Bank of West Africa States – BCEAO).

For a few years, we have highlighted West Africa's evolution as one of the industry's drivers – if not the main one. This year, we decided to include a few stories from the region on what has supported the growth of mobile money there. Regulation has played an important role for many countries in the region. We briefly explored how this has impacted the West Africa Economic and Monetary Union, while also showcasing what impact the rising number of mobile money services has had on financial inclusion in Nigeria.

Keeping track of the number of mobile money services worldwide is an important activity, one which the team monitors all year round. In 2023, we audited and refreshed our Mobile Money Deployment Tracker to ensure that all providers listed there met our definition of a mobile money service. Through this, we were pleasantly surprised to find that the number of mobile money services had grown slightly – from 309 in 2022 and 310 and 2023. We see this as a sign that the industry is starting to mature, a fact we believe is supported by the slowdown in registered and active account growth in 2023.

Since its inception, each SOTIR has reported faster growth across a range of mobile money indicators than the previous year. In 2023, mobile money adoption and use continued to expand, but at a slower pace. We believe this marks a natural transition in the industry away from exponential growth and towards more gradual expansion. As mobile money is further integrated into the daily lives of millions, we expect to see more money flow through the wallet of a typical user – spread across more transactions of slightly lower value.

As the industry begins to mature, the impact of the COVID-19 pandemic still lingers. In last year's SOTIR, we compared forecasts produced in 2019 to actual data we received in 2022. This analysis found that in 2022, there were 300 million more registered accounts than our 2019 forecasts had suggested there would be.

Some of this could have been due to the impact of the pandemic. In 2023, we carried out the same type of analysis on transaction values and volumes. We found that both transaction volumes and values started surpassing our 2019 forecasts in 2021. By 2023, transaction volumes were nearly two-thirds higher than forecast, while transaction values were over a third higher than forecast.

Finally, a popular activity among the team is to follow the industry's progress and highlight the most prominent stories in SOTIR. Most of our monitoring showed that the industry is innovating and developing strategic partnerships – especially to provide adjacent services. For instance, several mobile-enabled insurance services have been launched in partnership with mobile money providers, as well as some savings and microloan services. These industry developments complement our data analysis well, showing mobile money's value beyond rising numbers.

Rishi Raithatha & Gianluca Storchi

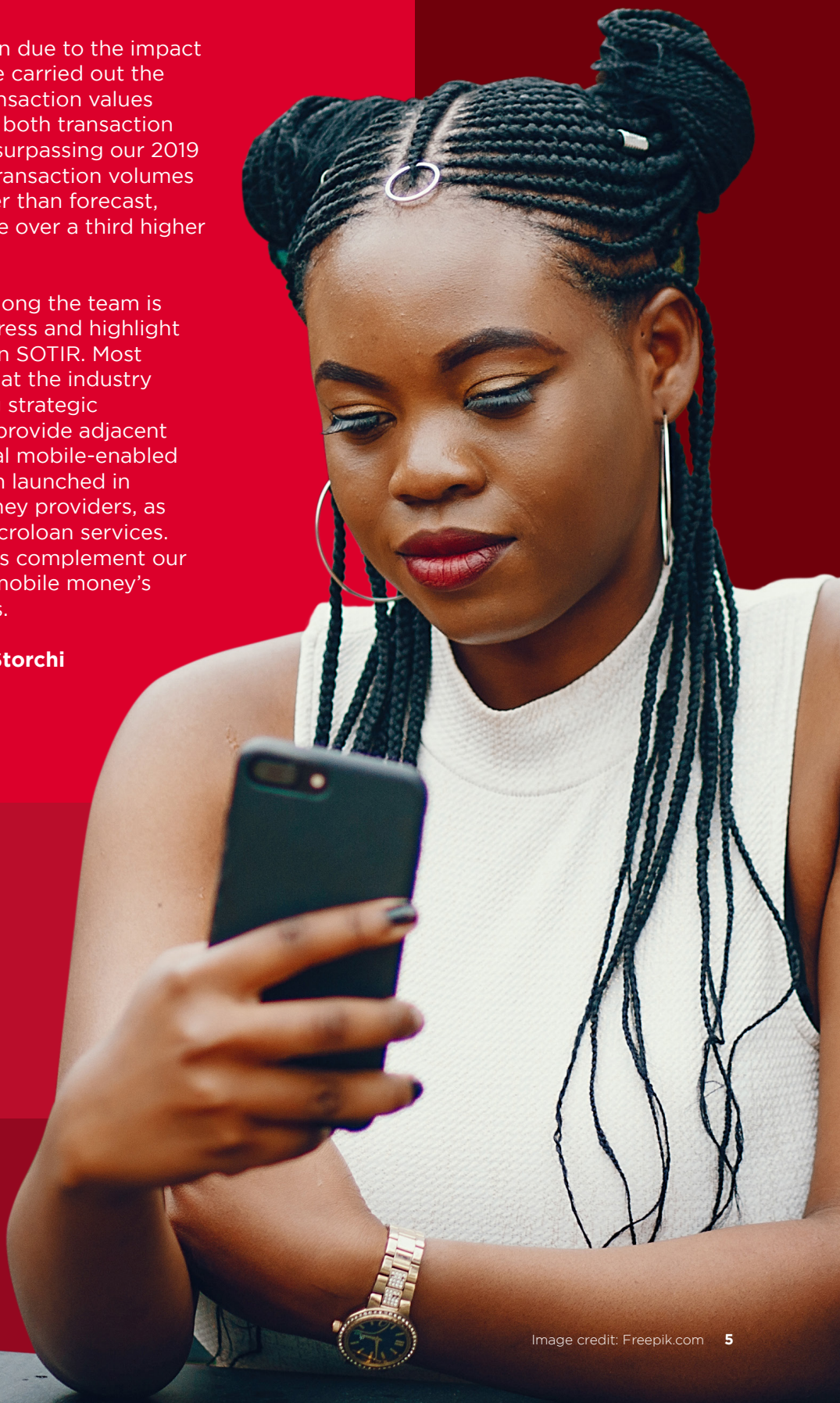


Image credit: Freepik.com

Contents

Executive Summary

Between 2013 and 2022, the total gross domestic product (GDP) in countries with a mobile money service was $600 billion higher than it would have been without mobile money.
This is the equivalent of mobile money increasing GDP by around 1.5% over the same period. Beyond contributing to financial and digital inclusion, increasing mobile money use has led to higher GDP – particularly among countries in East and West Africa.

Mobile money adoption and active use continued to grow but at a slower rate than in previous years.
Registered accounts grew to 1.75 billion in 2023, a 12% year-on-year increase. However, this is a lower annual growth rate than the 15% seen in 2022 and 19% seen in 2021. Accounts active on a monthly basis also grew at a slow year-on-year rate. By the end of 2023, there were around 435 million active mobile money accounts – a 9% annual rise, compared to 13% in 2022 and 15% in 2021.

Agent networks continued to grow, driven by increased agents in Sub-Saharan Africa.
Compared to 2022, registered agents grew by 22% in 2023 to reach 18.6 million, while active agents grew by 14% to 8.3 million. These agents were responsible for digitising more than two-thirds of all the money entering the mobile money ecosystem: $307 billion in 2023, 12% higher than the previous year.

Over the past few years, West Africa has emerged as mobile money's new powerhouse.
In 2023, over a third of new registered and active 30-day accounts globally were from West Africa. This was more than any other region with Nigeria, Ghana and Senegal the main drivers of growth. West Africa's vibrant mobile money ecosystem has developed differently from East Africa. For instance, West Africa has seen more non-mobile-network-operator (MNO)-led mobile money services emerge to compete with MNO-led providers.

In 2023, mobile money transaction volumes grew faster than transaction values – leading to a drop in average transaction values.
Transaction values grew year-on-year by 14%, lower than the 22% increase seen in 2022. Similarly, transaction volumes grew at a slower rate in 2023 (23%) compared to 2022 (27%). However, transaction volumes grew faster than transaction values. Mobile money is now used more frequently albeit for smaller transaction sizes across almost all use cases. Much of the higher-value transactions occurred during the height of the COVID-19 pandemic when the demand for digital transactions was very high.

International remittances and merchant payments were among the fastest-growing mobile money use cases in 2023.
Transaction values for international remittances grew to almost $29 billion, a one-third increase compared to 2022. Much of this growth was driven by West Africa. Merchant payments grew by 14%, reaching around $74 billion in 2023. Many customers now use mobile money to pay for goods and services: in 2019, one in every ten dollars circulating in the mobile money ecosystem was spent on merchant payments; in 2023, this grew to two in every ten dollars.

Interoperable transactions continued to rise, despite a slowdown in growth between 2022 and 2023.
Collectively, bank-to-mobile and mobile-to-bank transactions grew by 15% year-on-year to $210 billion in 2023. Many mobile money users are making interoperable transactions more frequently, which has led to lower average transaction values. This is due to mobile money providers being connected to an average of 27 banks – around 50% more than the previous year.

Some use cases shrank for the first time: transaction values for both bill payments and bulk disbursements dropped in 2023.
Bill payment transaction values fell by 11% to $75 billion, while bulk disbursement values dropped by 1% to $83.6 billion. Despite this, both use cases saw higher transaction volumes:

between 2022 and 2023, bill payments grew by 23%, while bulk disbursement volumes grew in 2023 by 10%. Both these trends were heavily influenced by regulatory changes in Kenya, where bank-to-wallet transaction charges were reintroduced.

More mobile money providers are offering more adjacent financial services, such as credit, savings and insurance, compared to 2022.

In 2023, nearly half of all Global Adoption Survey respondents offer responsible credit – compared to just over 40% in 2022. During the same period, the number of mobile money services offering savings grew from 39% in 2022 to 44% in 2023. Several mobile money providers are beginning to offer microinsurance: 23% of services offered insurance in 2023, compared to 14% in 2022. While insurance is the least offered adjacent service, it grew the fastest.

Mobile money has enabled more women to save money than other financial services.

For instance, in Senegal, only 6% of women saved using a traditional bank or other financial account in 2021; around four times more women chose mobile money to save. Kenya, Uganda and Zambia saw similar trends, where the share of women using mobile money accounts to save money was more than double that of women using bank or other financial accounts.

Many mobile money providers have seen an increase in average revenue per user – from $2.2 in September 2022 to $3.2 in June 2023 – leading to higher profitability.

Overall revenues among Global Adoption Survey respondents grew by around 25% over the same period. Mobile money providers have become increasingly profitable: by 2023, nearly three-quarters of survey respondents had positive earnings.

Taxation remains an important regulatory challenge for many mobile money services, though some countries are beginning to abolish mobile money taxes.

Mobile money taxation is a convenient revenue-earning opportunity for many governments in Sub-Saharan Africa. However, both Ghana and Tanzania have experienced the negative effects of taxing mobile money transactions: mobile money users began to use cash after mobile money levies were introduced. Lower resulting mobile money transactions led to a reduction in tax revenue. Tanzania eliminated the levy on mobile money transfers in June 2023, while Ghana reduced the levy on electronic transactions in January 2023.

Among a subset of countries surveyed, a mobile money gender gap exists in all – except Kenya where mobile money adoption is almost universal.

The gender gap is widest in Pakistan (71%) among the countries surveyed, followed by India (56%), Bangladesh (56%) and Nigeria (46%). Mobile money ownership among women in Bangladesh has stagnated, despite an increase in women's awareness of mobile money in the country. In Senegal, around 30% of women still do not have a mobile money account – despite near-universal adoption among men.

As a key enabler of the United Nations' Sustainable Development Goals (SDGs), mobile money now contributes to 15 SDGs – up from 13 in 2019.

Mobile money now contributes to SDG 11 – Sustainable cities and communities, as well as to SDG 12 – Responsible consumption and production. While mobile money remains a driver towards achieving the SDGs, it continues to impact millions of people in their daily lives. Many mobile money users are now able to access productive services that were previously inaccessible.

Mobile money in 2023

Registered mobile money accounts

1.75 bn

Year-on-year growth rate **+12%**

Value of transactions

$1.40 tn

Year-on-year growth rate **+14%**

Active 30-day accounts

435 m

Year-on-year growth rate **+9%**

Active agents

8.3 m

Year-on-year growth rate **+14%**

Merchant payments processed per year

$74 bn

Year-on-year growth rate **+14%**

International remittances processed per year

$29 bn

Year-on-year growth rate **+33%**

2023 Global overview

Accounts

Registered mobile money accounts
1.75 bn
+12%

Active 90-day accounts
642 m
+11%

Active 30-day accounts
435 m
+9%

Transactions

Transaction volume
85 bn
+23%

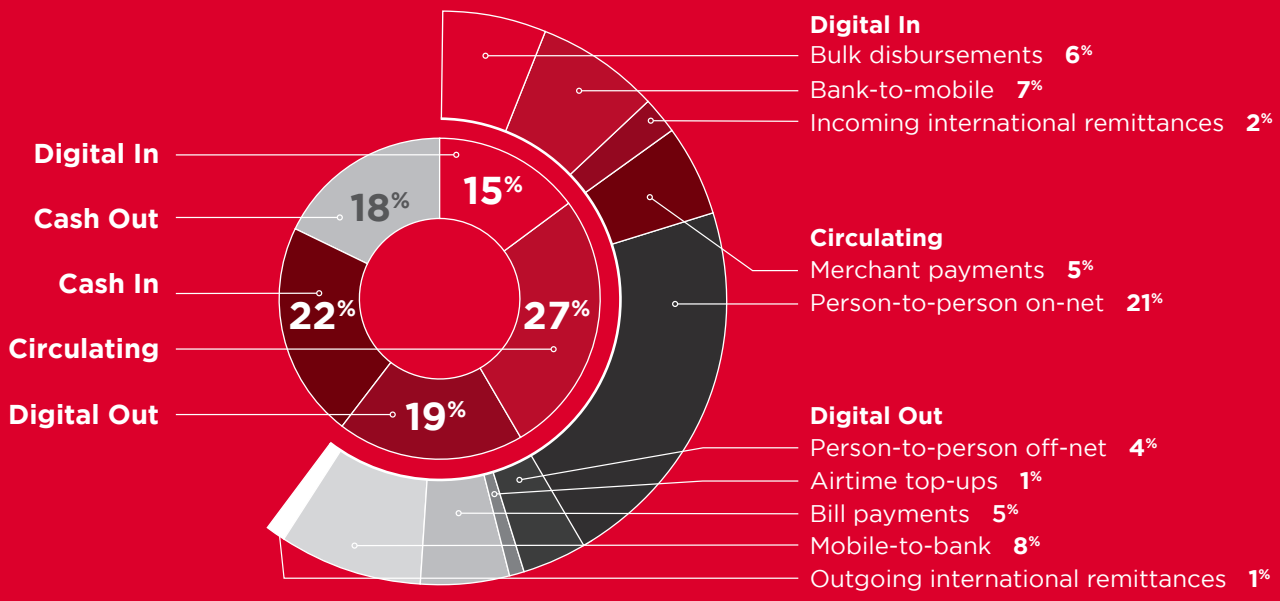
Transaction value ($)
$1.4 tn
+14%

Agents

Registered
18.6 m
+22%

Active
8.3 m
+14%

Monthly value snapshot - December 2023



*Note: here and throughout this report, numbers may not add up to their respective totals due to rounding errors.

Regional growth in 2023

Region	Live services	Registered accounts	Active (30-day) accounts	Transaction volume	Transaction value ($)
Global 	310	1.75 bn + 12%	435 m + 9%	85 bn + 23%	1.4 tn + 14%
Sub-Saharan Africa 	156	835 m + 19%	234 m + 12%	62 bn + 28%	912 bn + 12%
South Asia 	36	401 m + 11%	89 m + 8%	12 bn + 13%	214 bn + 17%
East Asia and Pacific 	52	374 m + 3%	77 m + 6%	9 bn + 10%	196 bn + 14%
Latin America and the Caribbean 	29	48 m - 13%	19 m - 13%	1 bn + 6%	38 bn + 11%
Middle East and North Africa 	30	71 m + 10%	9 m + 41%	719 m + 57%	30 bn + 40%
Europe and Central Asia 	7	26 m + 8%	6 m + 11%	391 m + 13%	7 bn + 14%

Growth in Africa in 2023

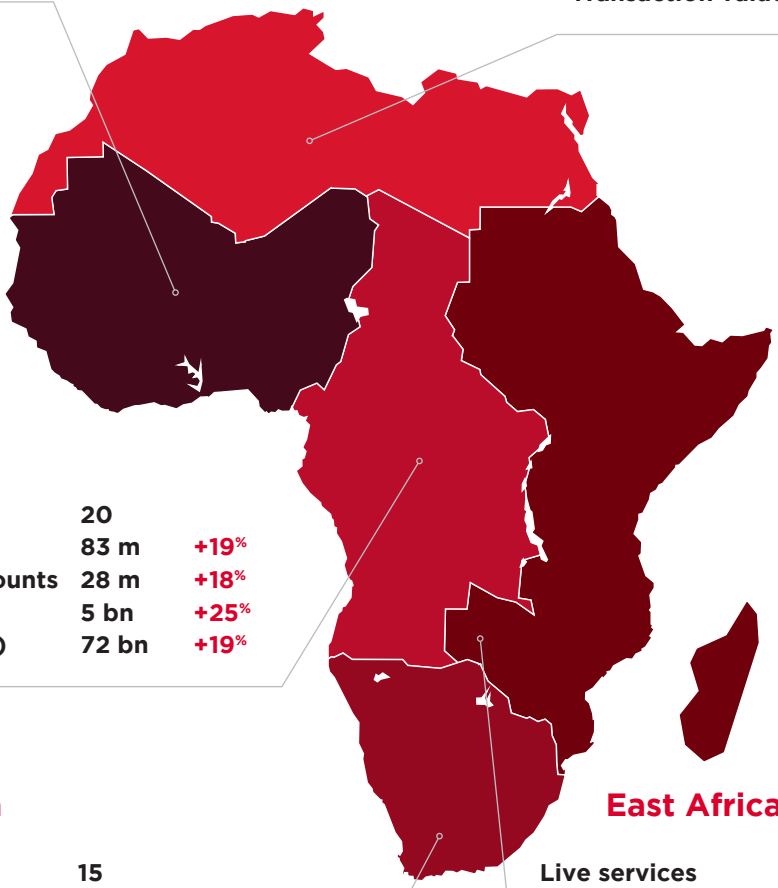
Live services	Registered accounts	Active (30-day) accounts	Transaction volume	Transaction value ($)
169	856 m + 19%	237 m + 13%	62 bn + 28%	919 bn + 12%

West Africa

Live services	68	
Registered accounts	356 m	+23%
Active (30-day) accounts	84 m	+19%
Transaction volume	19 bn	+40%
Transaction value ($)	347 bn	+40%

North Africa

Live services	13	
Registered accounts	20 m	+17%
Active (30-day) accounts	2 m	+54%
Transaction volume	150 m	+44%
Transaction value ($)	7 bn	+48%



Central Africa

Live services	20	
Registered accounts	83 m	+19%
Active (30-day) accounts	28 m	+18%
Transaction volume	5 bn	+25%
Transaction value ($)	72 bn	+19%

Southern Africa

Live services	15	
Registered accounts	23 m	+19%
Active (30-day) accounts	5 m	+7%
Transaction volume	592 m	+10%
Transaction value ($)	6 bn	+2%

East Africa

Live services	53	
Registered accounts	372 m	+16%
Active (30-day) accounts	118 m	+7%
Transaction volume	38 bn	+23%
Transaction value ($)	488 bn	-2%

01

Towards a maturing industry: Mobile money adoption in 2023

 Image credit: Freepik.com

Mobile money has had a significant positive impact on lives and livelihoods in many of the countries where these services operate. Beyond improving financial inclusion and access to other digitally enabled services, the adoption, use and growth of mobile money are now reflected in macroeconomic indicators: an increase in mobile money adoption can lead to a rise in GDP. Between 2013 and 2022, a 10-percentage point rise in mobile money adoption was found to have increased GDP by 0.4%-1.0%[1]. This is supported by three factors:

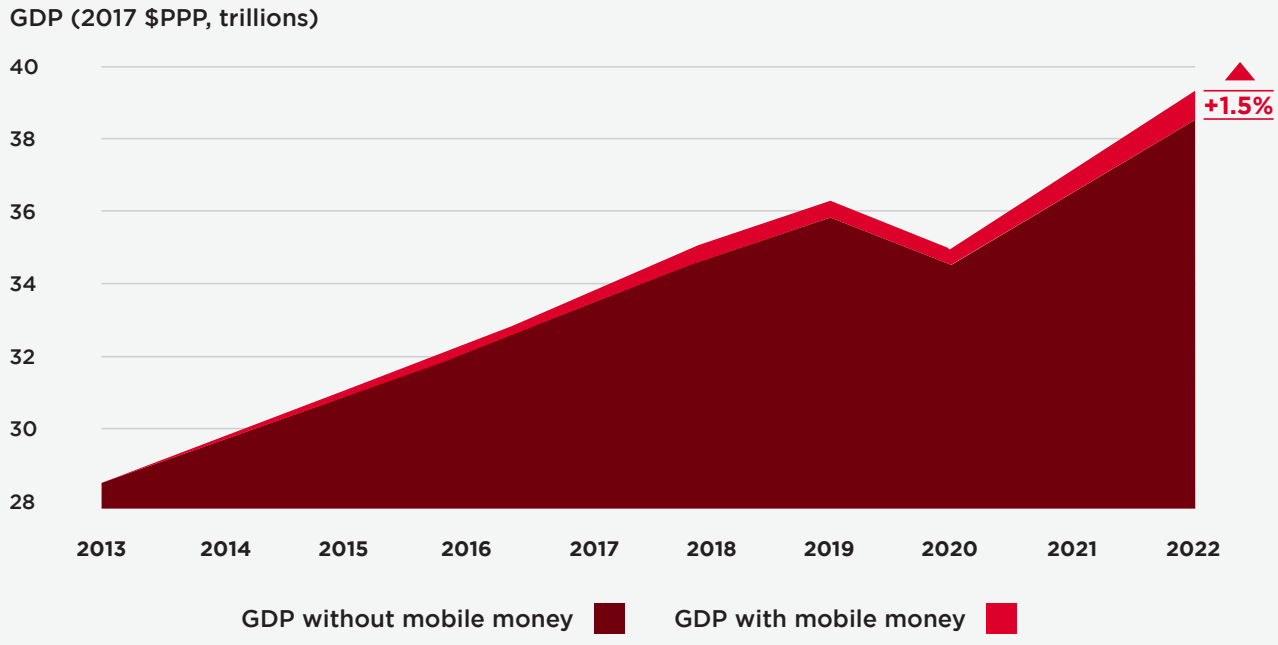
- Higher adoption of mobile money combined with higher transaction values;
- An increase in ecosystem transactions, i.e., international remittances, merchant payments, and bill and bulk payments; and
- Stronger network effects, as more users adopt mobile money and transact with more people.

Based on data collected between 2013 and 2022, the total GDP in countries with a mobile money service ("mobile money countries") was almost $600 bn higher than it would have been without mobile money *(Figure 1)*.

This is equivalent to mobile money increasing GDP by 1.5% at the end of the period.

+$600 bn TO GDP

Figure 1: **Simulated impact of mobile money on GDP in mobile money countries, 2013–2022**



Source: GSMA. (2023).

[1] GSMA. (2023). Mobile Money: How Digital Payments have Impacted Economic Growth.

Mobile money is often considered an African success story, and in many ways it is. Sub-Saharan Africa has the highest levels of mobile money adoption in the world. This is evident in mobile money's contribution to the region's GDP, which at the end of 2022 was more than $150 billion or equivalent to increasing GDP by 3.7% (*Figure 2*).

In East and West Africa where mobile money adoption is highest, GDP increased even more – by 5.9% and 4.1%, respectively, by the end of 2022.

Figure 2: **Contribution of mobile money to GDP as of 2022, by region**

All mobile money countries

+$600 bn | **+1.5%**

Eastern Africa

+$60 bn | **+5.9%**

Sub-Saharan Africa

+$150 bn | **+3.7%**

Western Africa

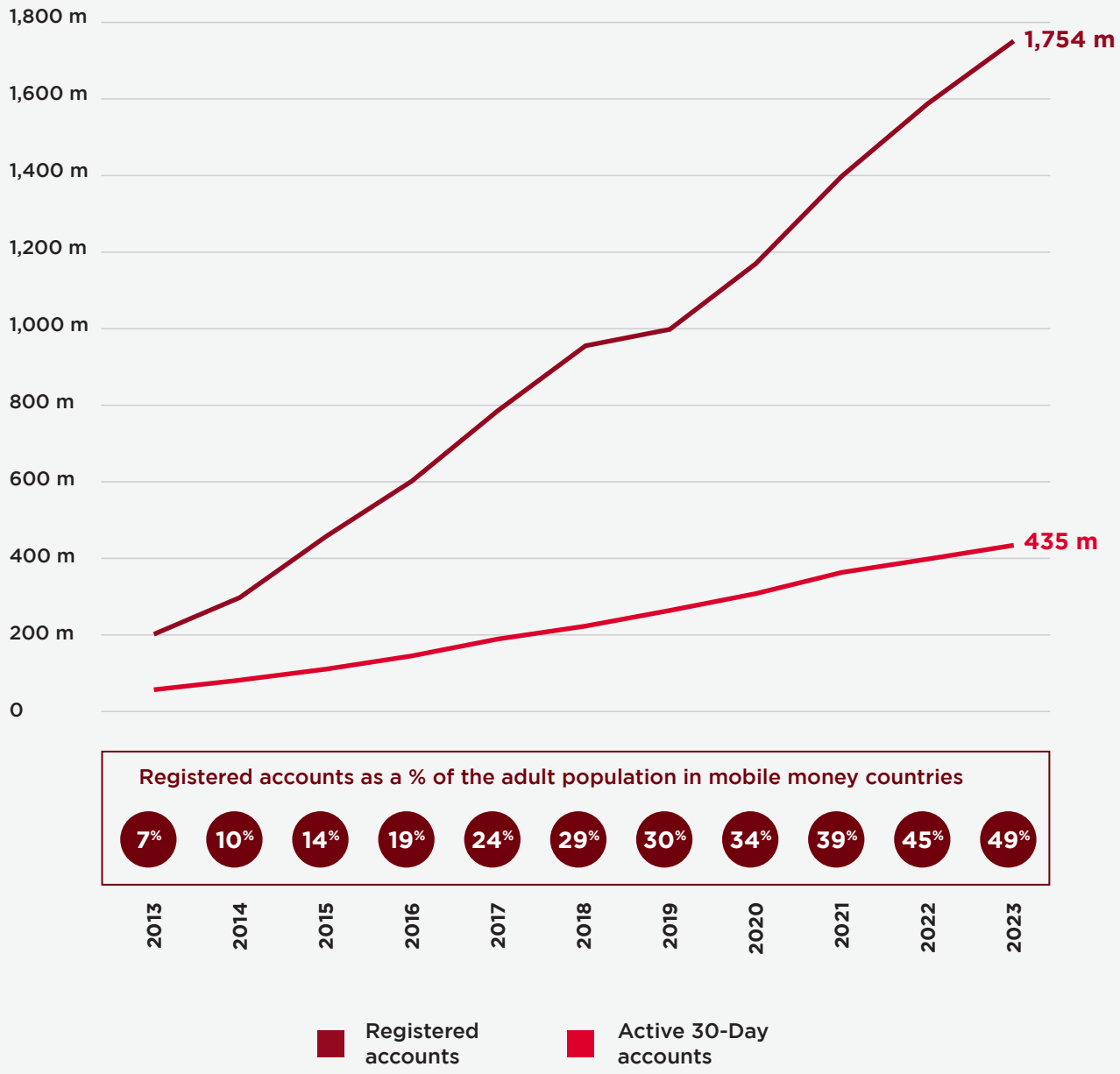
+$70 bn | **+4.1%**

Source: GSMA. (2023). Mobile Money: How Digital Payments have Impacted Economic Growth.

Registered accounts continue to grow, albeit more slowly

In 2023, there were 1.75 billion registered mobile money accounts globally, 12% more than in 2022 (*Figure 3*). The year-on-year growth of registered accounts has slowed, from 15% in 2022 and 19% in 2021. This suggests that the industry continues to mature. Despite this trend, registered accounts have grown as a proportion of the global adult population in mobile money countries.

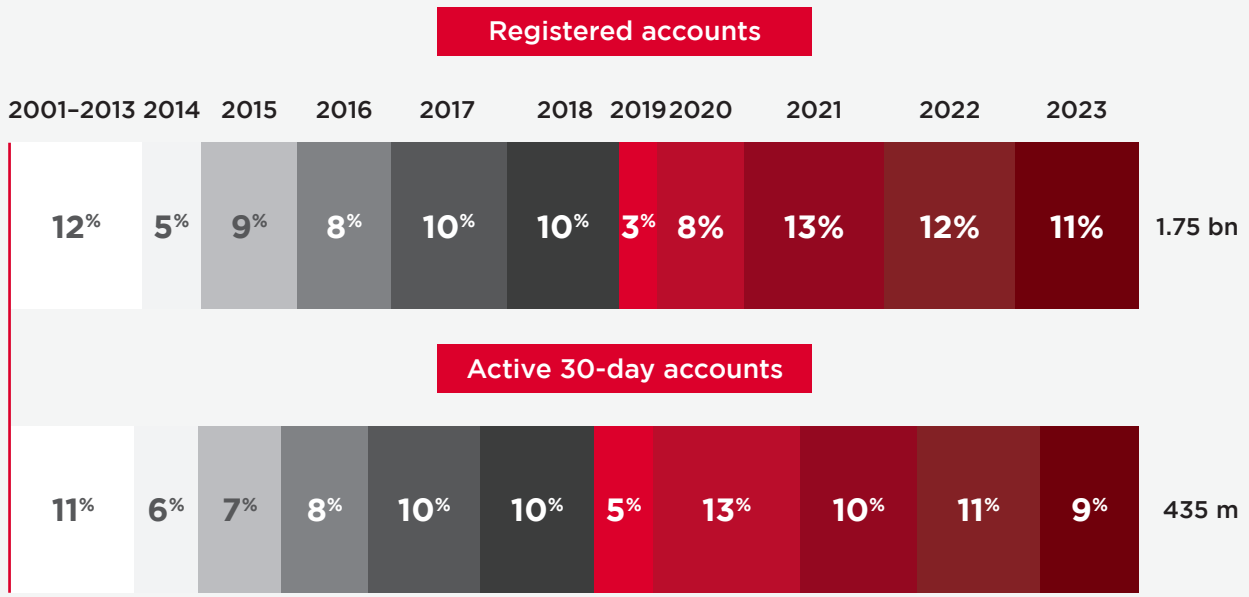
Figure 3: **Registered and active 30-day accounts, 2013–2023**



Source: GSMA Global Adoption Survey and estimates, and the World Bank.

Over time, the rate at which registered accounts have grown has varied (*Figure 4*). The lowest proportion of new registered accounts and new active 30-day accounts was in 2019, just before the onset of the COVID-19 pandemic. The largest proportion of new active 30-day accounts[2] and registered accounts (13% each) were added in 2020 and 2021, respectively, at the peak of national lockdowns. Data from the 2023 GSMA Global Adoption Survey on mobile money showed that the pandemic was partly responsible for driving this increased demand for digital payments.

Figure 4: **Contributions to total registered and active 30-day accounts by year, 2001–2023**



Source: GSMA Global Adoption Survey and estimates

Sub-Saharan Africa's share of registered accounts increased for two consecutive years to 48% in 2023, the highest since 2019 (*Figure 5*). In 2023, more than 70% of the growth in registered accounts was in Sub-Saharan Africa and a fifth in South Asia. Within Sub-Saharan Africa, West Africa's share of registered accounts doubled between 2013 and 2023 while East Africa's was almost halved. These two subregions, together with South Asia and East Asia and the Pacific, account for more than 85% of all current registered mobile money accounts.

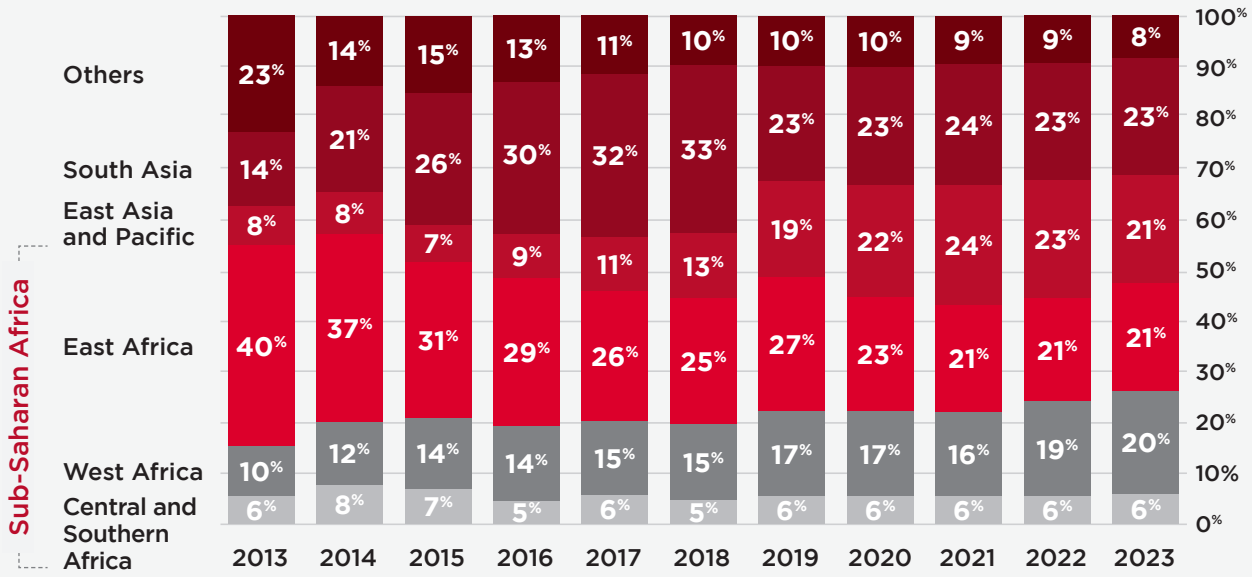
In 2023

70%

of the growth in registered accounts was in Sub-Saharan Africa and a fifth in South Asia.

[2] Here and throughout this report, "active accounts" refer to mobile money accounts that are actively used on a monthly basis.

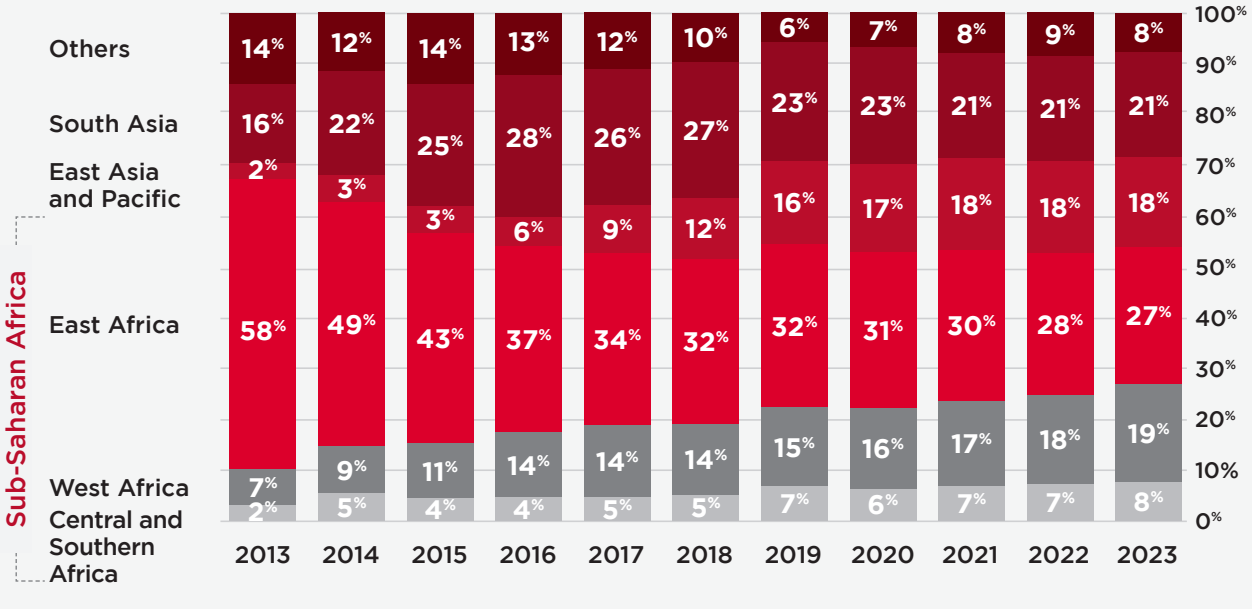
Figure 5: **Share of registered accounts by region and sub-region, 2013–2023**



Active account growth slowed down, too

In 2023, there were 435 million active mobile money accounts. Like registered accounts, active account growth was slower in 2023 (9%) compared with 2022 (13%) and 2021 (15%). More than half of all active accounts are in Sub-Saharan Africa. While East Africa maintains a dominant share of active accounts, this is less than half its share in 2013. Like registered accounts, West Africa's share of active accounts more than doubled over the same period to 19%. In 2023, more than two-thirds of active account growth was in Sub-Saharan Africa while nearly a fifth was in South Asia.

Figure 6: **Share of active accounts by region and sub-region, 2013–2023**



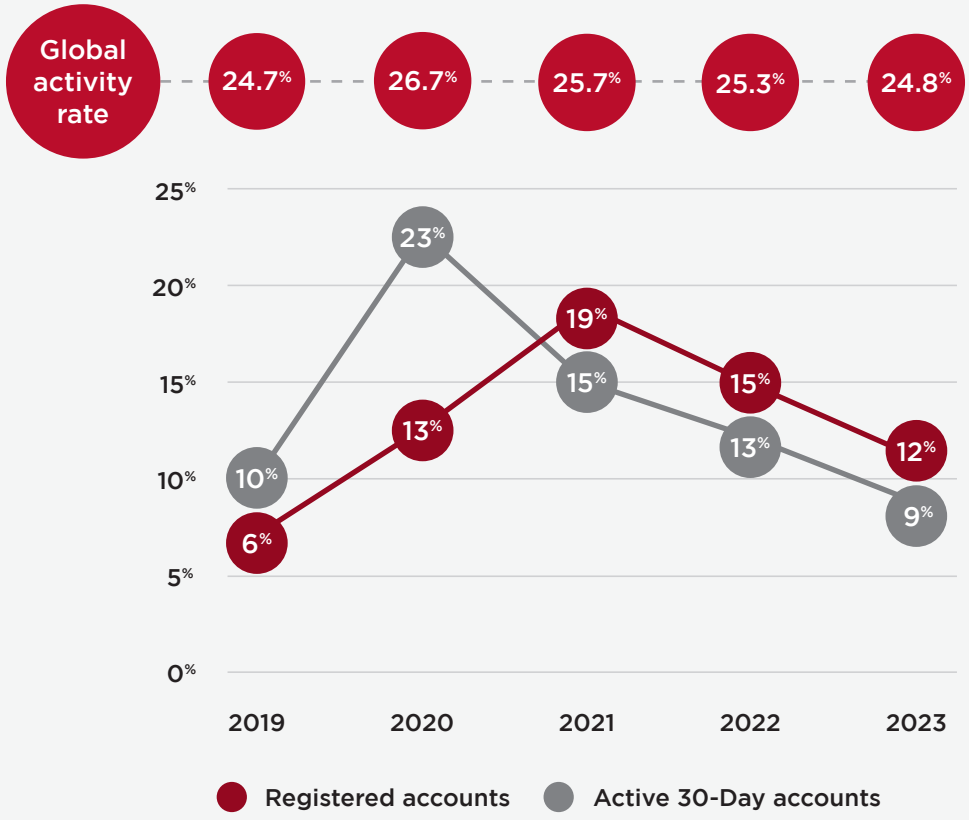
Source Fig. 5 & 6: GSMA Global Adoption Survey 2023 and estimates

Global activity rates have dropped slightly

Global monthly activity rates fell by half a percentage point from 25.3% in 2022 to 24.8% in 2023. This is due to changes in registered and active account growth rates. Since 2021, registered accounts have grown faster than active accounts (*Figure 7*). The year-on-year growth rate of active accounts peaked at 23% in 2020 at the height of the COVID-19 pandemic.

Since then, active accounts have grown at a lower rate, but higher than or in line with pre-pandemic growth rates. At the same time, registered accounts have expanded at a faster rate, leading to a slowdown in activity rates since 2021. However, the 2023 activity rate of 24.8% remains slightly higher than the pre-pandemic rate of 24.7% in 2019.

Figure 7: **Year-on-year growth of registered and active 30-day accounts and the global activity rate, 2019–2023**

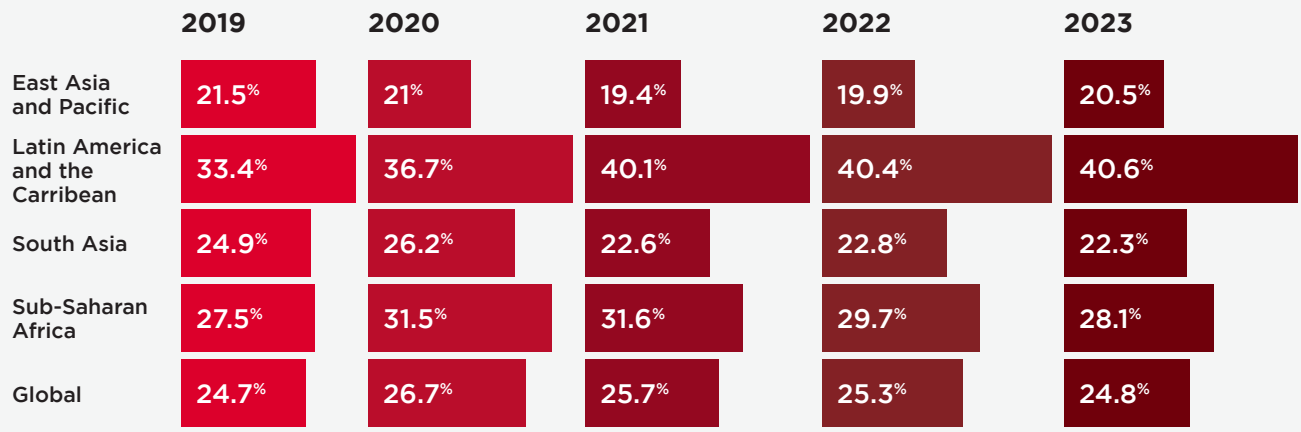


Source: GSMA Global Adoption Survey 2023 and estimates

At a regional level, activity rates in Sub-Saharan Africa fell from 29.7% in 2022 to 28.1% in 2023 (*Figure 8*). This is mainly due to registered accounts growing faster than active accounts in a few markets, particularly where new services were launched. In other cases, such as in Kenya, the reintroduction of transaction charges that had been zero-rated during the COVID-19 pandemic influenced customer behaviour. The activity rate in East Asia and the Pacific increased by 0.6% in 2023.

Activity rates in Latin America and the Caribbean remain the highest, having risen consistently since 2019.

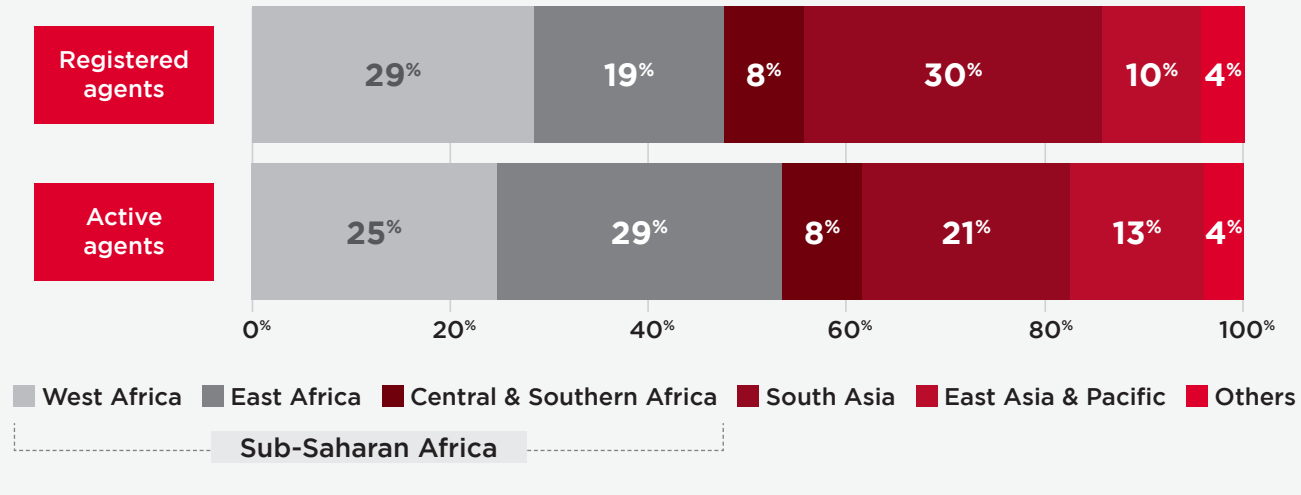
Figure 8: **Active 30-day account rates by region, 2019–2023**



Registered agents grew faster than active agents

Agents remain a core part of the mobile money ecosystem and continue to play an important role in delivering and enabling services to customers. In 2023, mobile money agents digitised $307 billion (the total cash-in transactions), up 12% from 2022. This is more than two-thirds of all the money entering the mobile money ecosystem. The number of registered and active agents[3] continued to grow in 2023. Registered agents grew by 22% in 2023 to reach 18.6 million. Of these, 8.3 million were active on a monthly basis, 14% more than the previous year. Most of this expansion came from Sub-Saharan Africa, where registered agents grew by a third. Active agent growth slowed, as much of the progress in 2022 was due to the launch of new services in Ethiopia and Nigeria. Home to nearly half of all registered agents in 2023, agents remain key to mobile money in West and East Africa (*Figure 9*).

Figure 9: **Distribution of registered and active agents across regions and sub-regions, 2023**

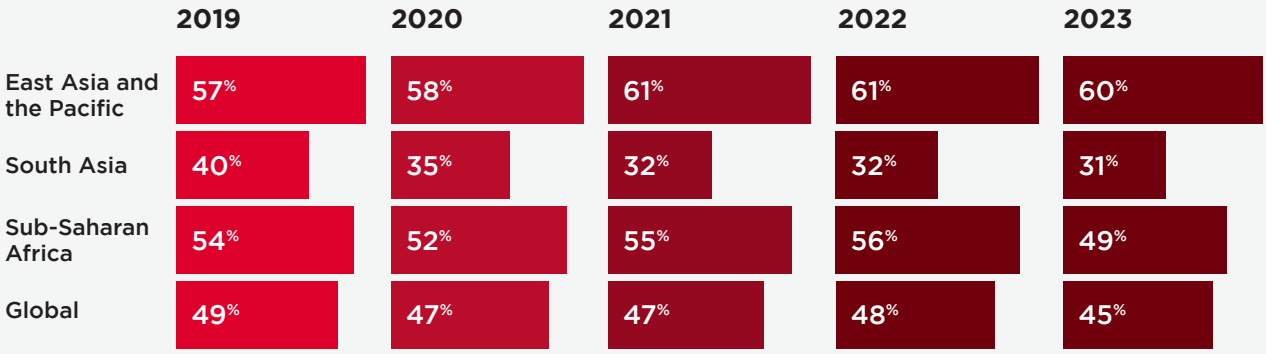


Source Fig 8 & 9: GSMA Global Adoption Survey and estimates

Note: "Others" includes Europe and Central Asia, Latin America and the Caribbean, and the Middle East and North Africa.
[3] This refers to agents active on a monthly basis.

The percentage of registered agents active on a monthly basis declined from 48% in 2022 to 45% in 2023 (*Figure 10*). This was mainly driven by a drop in the agent activity rate in Sub-Saharan Africa, where registered agent growth outpaced active agent growth. Agent activity rates in South Asia and East Asia and the Pacific fell slightly in 2023, though each only by one percentage point.

Figure 10: **Active 30-day rates for agents by region, 2019–2023**



Source: GSMA Global Adoption Survey 2023 and estimates

Live services

As of December 2023, there were 310 live mobile money services in 99 countries (*Figure 11*). The number of net available mobile money services rose by one when compared to December 2022. In 2023, four new services were launched in Angola, Bangladesh, Nigeria and the Solomon Islands. In the same year, two services closed in Jamaica and Palestine, while one was suspended in Sudan. Conflicts in both Palestine and Sudan have affected access to financial services.

Figure 11: **Mobile money service trends by region, 2019–2023**

Region	2019	2020	2021	2022	2023	2022–2023 change
East Asia and Pacific	53	49	51	51	52	1
Europe and Central Asia	7	7	7	7	7	0
Latin America and the Caribbean	28	29	30	30	29	-1
Middle East and North Africa	23	31	30	31	30	-1
South Asia	33	35	35	35	36	1
Sub-Saharan Africa	158	163	163	155	156	1
Global	302	314	316	309	310	1

Source: GSMA Mobile Money Deployment Tracker

Image credit: Freepik.com

Industry highlights in 2023

Month	Type of development	Details
JAN	Strategic partnership	MTN, Optasia and Ecobank partner to launch a mobile money-based microloan service in Guinea.
	Taxation	The Government of Ghana reduces the levy on mobile money from 1.5% to 1%.
FEB	Service launch	Zeepay, a remittance-focused fintech, is granted regulatory approval to launch a mobile money service in The Gambia.
MAR	Strategic partnership	Ooredoo adopts Huawei's mobile money platform for their mobile money services in the Middle East and North Africa.
	Innovation	Airtel Money Uganda launches a hospital insurance product on their mobile money platform.
APR	Strategic partnership	Onafriq (formerly MFS Africa) partners with Access Bank to expand remittance corridors for 400 million mobile money accounts.
	Innovation	Mascom Botswana launches a short-term loan product through their mobile money service, MyZaka.
MAY	Innovation	Airtel Money launches hospital and funeral insurance products in Malawi and Zambia, respectively.
JUN	Service launch	Our Telekom in the Solomon Islands launches the M-SELEN mobile money service.
	Taxation	The Government of Tanzania abolishes most mobile money transaction levies.
JUL	Industry growth	Maroc Telecom recorded 11.8% growth in mobile money revenue in the first half of 2023 from their Moov Africa subsidiaries.
AUG	Investment	Mastercard agrees to buy a minority stake in MTN's $5.2 billion fintech unit.
	Policy	The Central Bank of Kenya increases daily mobile money transaction and wallet limits by 66%.
	Service launch	Safaricom's M-PESA launches their mobile money service in Ethiopia.
SEPT	Innovation	Safaricom Kenya launches standing orders for M-PESA users, becoming the first mobile money provider (MMP) to offer this.
OCT	Strategic partnership	Tigo Pesa Tanzania partners with WhatsApp to allow users to access their accounts and make transactions.
NOV	Innovation	Orange launches a new super app, MaxIt, in Cameroon, Senegal, Mali, Burkina Faso and Botswana.
DEC	Innovation	Safaricom's M-Pesa partners with Visa to offer physical debit cards to mobile money users in Kenya to use at points of sale.

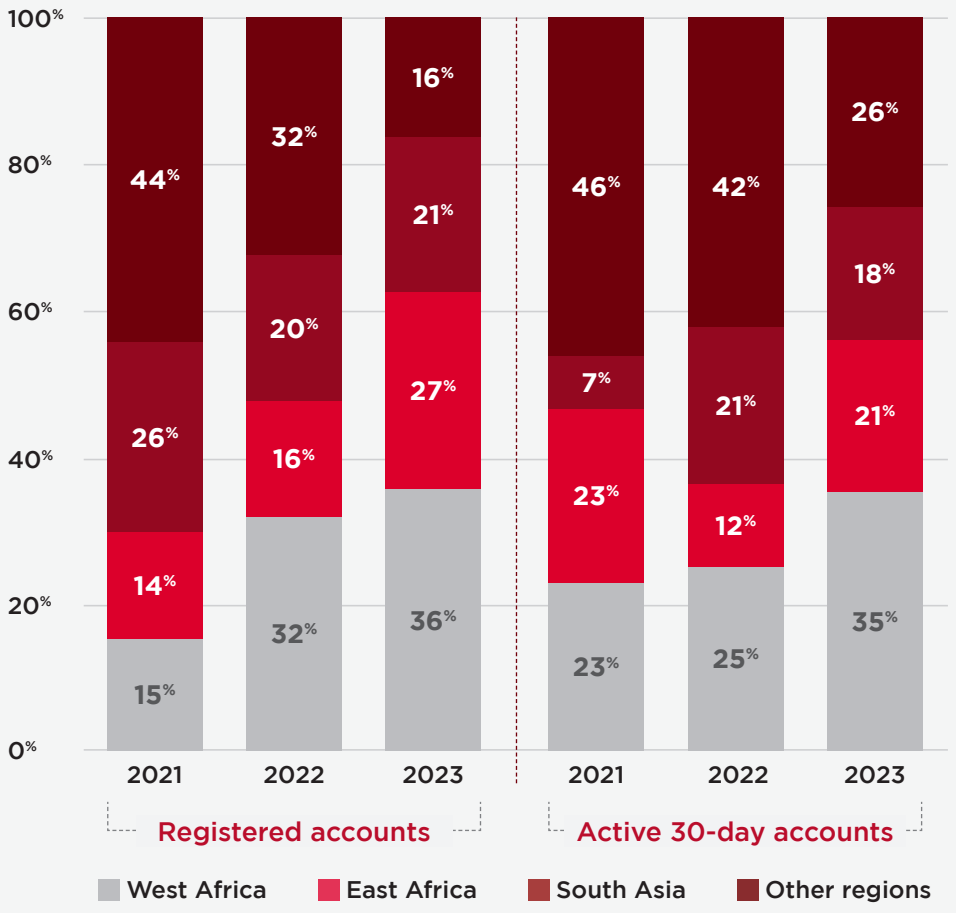
02

West Africa: Mobile money's new powerhouse

Image credit: Freepik.com

Over the past few years, West Africa has led the growth in access to mobile money. The proportion of new registered accounts and new active 30-day accounts originating from West Africa has risen sharply since 2021 (*Figure 12*). In 2023, over a third of new registered and active 30-day accounts globally were from West Africa, more than any other region. Nigeria, Ghana and Senegal were the main drivers of growth in the region.

Figure 12: **Share of annual additions to registered and active 30-day accounts by region, 2021–2023**



Source: GSMA Global Adoption Survey and estimates

West Africa's vibrant mobile money ecosystem has developed differently from East Africa's, with regulation playing an important role in how services have evolved and in the products mobile money providers offer. For instance, West Africa had the highest regional share of inbound remittance payments. However, outward remittance payments are still not permitted for many countries in the region. West Africa has also seen more non-mobile-network-operator (MNO)-led mobile money services emerge to compete with MNO-led providers. This has led to significant growth in use cases, such as merchant payments in Senegal, and some services focussing entirely on the business-to-business segment.

Much of the significant rise in agent networks globally in 2022 occurred in West Africa, with regulations in Nigeria driving this trend. With several mobile money providers now holding a licence to operate in Nigeria, the country has seen a rapid rise in the use of digital financial services. This special feature focuses on how regulation, mobile money providers and investment have impacted access to financial services and financial inclusion in the region.

Mobile money in WAEMU: a growing ecosystem

The West African Economic and Monetary Union (WAEMU), made up of Benin, Burkina Faso, Côte d'Ivoire, Guinea-Bissau, Mali, Niger, Senegal and Togo, has experienced significant growth in the use of mobile money. Between 2018 and 2022, more than 110 million new mobile money accounts were opened, including 60 million since 2021. The region has a population of more than 137 million, 60% of whom live in rural areas. The growing use of mobile money has helped increase financial inclusion from 56% in 2018 to 71% in 2022.

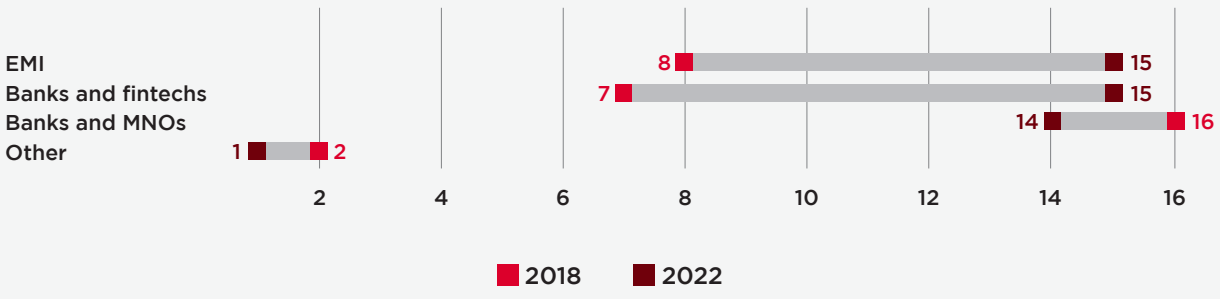
The adoption of mobile money as a popular digital financial service (DFS) can be attributed to the regulatory framework adopted in 2006 by the Banque Centrale des Etats de l'Afrique de l'Ouest (BCEAO). The framework allows non-bank players to offer financial services as a licenced mobile money issuer. The regulation permits two models:

- **A bank-led model** in which the activities of issuing and distributing e-money (mobile money) are carried out by a bank or microfinance institution (MFI). This can be done either as an extension of their regular business or in partnership with an MNO, fintech or any other technical provider.
- **A non-bank-led model**, in which any legal entity other than a bank or other payment institution can offer e-money services. Providers adopting this model are typically licensed as an electronic money institution (EMI) by the BCEAO.

The regulations require partnerships based on technical agreements between banks, MFIs, MNOs or fintechs. Under these agreements, MNOs or fintechs are responsible for managing the payment system and marketing the service.

As of 2022, partnerships based on a bank-led model are more popular. Of the 45 mobile money services in the WAEMU region, 29 were led by banks in partnership with technical providers, while 15 were approved EMIs (*Figure 13*). Overall, e-money issuers held a 71% market share of registered accounts, while accounts offered by fintech-led partnerships grew from 23% in 2018 to 29% in 2022.

Figure 13: **Mobile money service growth by model, 2018–2022**



Source: BCEAO

In 2007, when e-money providers were first introduced, partnerships between banks and MNOs were the most common. While these services relied on USSD, there has been a shift where banks prefer a fintech-led agile approach. As of December 2022, more than 150 FinTech companies were identified in the WAEMU region through a BCEAO survey.

Mobile money's role in driving financial inclusion in Nigeria

Mobile money growth in Nigeria has been driven by both MNO-led and non-MNO-led providers, both of which are subject to different types of licences. These licences allow some similar activities, but the difference in what each type of licence holder can offer may influence their impact on financial inclusion. Overall, as more mobile money providers have emerged, digital payment use has grown in Nigeria.

In 2018, the Central Bank of Nigeria (CBN) introduced the Payments Service Bank (PSB) licence, allowing MNOs to offer financial services[4]. The licence is reserved for non-bank mobile money providers, 25% of whose operations must be in rural areas. PSBs can offer deposits and withdrawals, cross-border remittances, and can issue debit cards – but not credit cards.[5]

Among MNOs, Glo and 9Mobile were the first to be granted a PSB licence in 2020. In 2022, the Central Bank of Nigeria issued PSB licences to SmartCash PSB (Airtel) and MoMo PSB (MTN). Each MNO was required to form a specialised subsidiary as part of the licencing conditions. By 2023, SmartCash PSB and MoMo PSB had grown significantly with around 20 million registered customers each[6,7] (*Figure 14*). MoMo PSB had at least 3.1 million monthly active users as of June 2023, a third more than the previous year[8].

Figure 14: **Statistics on selected mobile money providers in Nigeria, 2023[9]**

	Airtel	MTN	Opay	Palmpay
Registered mobile money accounts	20m (November 2023)	19m (March 2023)	30m (June 2023)	30m (October 2023)
Registered mobile money agents	52,000 (March 2023)		500,000 (June 2023)	500,000 (October 2023)
Active mobile money agents		227,000 (June 2023)		

Sources: Various

Both SmartCash and MoMo have grown rapidly since receiving their PSB licenses, but there remains room for further growth. Airtel's SmartCash had over 220 million MNO customers in 2022[7], while MTN's MoMo had over 77 million MNO customers in 2023[6] – presenting a large target customer base. MNO-led mobile money providers offer a significant opportunity to grow financial inclusion in Nigeria. MNO's large capital base, strong countrywide brand presence and technology collectively offer the ability to scale[10]. Non-MNO-led mobile money providers typically hold a "mobile money operator" (MMO) licence, which has different requirements compared to the PSB licence. For instance, MMOs have lower minimum capital balances than PSB licence holders[11]. While there are similarities between PSBs and MMOs, there are subtle differences in what financial products they can offer (*Figure 15*). Unlike PSBs, MMOs are not permitted to provide savings accounts. MMOs are also not required to have a dedicated focus on rural operations. A partnership with a financial institution is necessary for MMOs to accept deposits and issue debit or prepaid cards.

[4] Central Bank of Nigeria. (26 October 2018). Circular to all Stakeholders on Guidelines for Licensing and Regulation of Payment Service Banks in Nigeria.
[5] Onukwue, A. (5 May 2022). Why Nigeria's biggest telecom companies are getting banking licenses. *Quartz.*
[6] Elenya, F. (19 November 2023). Airtel's Smartcash hits 20m accounts as telco increase 5G investment. *BusinessDay.*
[7] Paul, E. (5 July 2023). Our grand plan to unlock riches from Nigeria's hidden wealth - MoMo PSB CEO, Eli Hini. *Techpoint Africa.*
[8] MTN. (2023). MTN Nigeria results presentation for the six months ended 30 June 2023.
[9] Note: Glo and 9Mobile could not be analysed further due to a lack of publicly available data.
[10] Onukwue, A. (5 May 2022). Why Nigeria's biggest telecom companies are getting banking licenses. *Quartz.*
[11] Pavestones. (3 February 2020). Financial Services In Nigeria: Difference Between MMOs, PSBs, and MFBs.

Figure 15: **Comparing PSBs and MMOs in Nigeria**[12,13]

	Payment Service Bank (PSB)	Mobile Money Operator (MMO)
Accept deposits	Yes	Yes – requires a partnership with a settlement bank
Provide savings accounts	Yes	No
Lend to customers	No	No
Geographic restrictions	Yes – 25% of physical operations have to be in rural areas	No
P2P and bill payments	Yes	Yes
Issue debit and prepaid cards	Yes	Not directly – requires a partnership with a financial institution
International remittances	Yes – for inbound international remittances only	No
Minimum capital requirements	$5.4 million (NGN 5 billion)	$2.1 million (NGN 2 billion)
Open to MNOs	Yes	No

Sources: Ironsi, T. (2022). Understanding MTN Nigeria's Payment Service Bank (PSB) License.

OPay and PalmPay are the most prominent non-MNO-led mobile money providers and have gained significant market share in Nigeria since receiving their MMO licence. Both are app-based mobile money providers, with a focus on tech-savvy customers. As of October 2023, OPay was Nigeria's most downloaded app[14]; it had more than 30 million users, over 500,000 agents and around 300,000 merchants[15].

PalmPay has achieved a similar reach: in 2023, it had 30 million registered accounts, half a million registered agents and 600,000 merchants[16].

The growth of non-MNO-led mobile money providers in Nigeria has driven financial inclusion, alongside the rising use of PSBs.

MMOs have succeeded in onboarding unbanked users using lower know-your-customer (KYC) requirements. However, towards the end of 2023, this raised concerns around a possible risk of fraudulent activity. In December 2023, the CBN announced that all financial institutions, including PSBs and MMOs, were required to revalidate customers' Bank Verification Numbers (BVN) or National Identity Numbers (NIN) by 31 January 2024[17]. Thereafter, it will be mandatory for all tier-1 bank accounts and mobile wallets to have a BVN or a NIN[18].

[12] Central Bank of Nigeria. (2020). Guidelines for Licensing and Regulation of Payment Service Banks in Nigeria, August 2020.
[13] Central Bank of Nigeria. (2015). Guidelines on mobile money services in Nigeria.
[14] Ojeniyi, S. (27 October 2023). The app that revolutionized money transfers in Nigeria. *Rest of World.*
[15] Dosunmu, D. (13 June 2023). The SoftBank-backed fintech that helped Nigerians through a cash crisis is eyeing "innovative partnerships". *Rest of World*
[16] Abimbola, O. (3 October 2023). PalmPay onboards 1.1 million businesses in four years. *Punch.*
[17] Oparada, P. (8 January 2024). CBN May Shut Down 3 Million Bank Accounts in Access, Zenith, Others Over NIN/BVN, Details Emerge. *Legit.*
[18] Central Bank of Nigeria. (2023). Circular on Tier 1 Wallets & Accounts, Guidance Note & Profiling of Customers' Accounts & Wallets.

Partnerships to expand mobile money: The case of Orange Bank Africa

In 2020, Orange launched Orange Bank Africa (OBA) Côte d'Ivoire to capitalise on the success of Orange Money. OBA is a joint venture with NSIA, a West African bancassurance leader, and is a fully licensed, digital-only bank. It offers loans and savings products to financially underserved individuals and to micro, small, and medium enterprises (MSMEs), particularly those in creative industries. MSME loans are attracting the attention of new and traditional financial service providers (FSPs), as digital distribution has made it increasingly commercially viable to serve this segment. This market opportunity is estimated to be worth more than $2.4 billion in Côte d'Ivoire alone.

Between 2020 and 2023, OBA distributed more than 2.4 million digital microcredits ("Tik Tak" loans) and banked more than a million Orange Money customers in Côte d'Ivoire. Both were achieved through a seamless, simple, end-to-end digital customer journey. Registration and all transactions with the bank can be carried out via Orange Money accounts, including repayment of loans. Data from customer transactions and their use of Orange mobile network services are used – with their explicit consent – to determine their credit scores. The credit-scoring model is based on machine learning, with loan decisions typically made in 10 seconds (on average) without any other collateral.

A Tik Tak loan offers instant access to credit ranging from $8 to $1,600, which is repayable within 30 to 90 days. Loans are charged at a maximum annual interest rate of 15%, equivalent to what banks in the WAEMU region charge. These loans can be revolving, allowing borrowers to increase their loan amounts as they build a credit history.

In October 2023, the Banking Commission of the West African Monetary Union (WAMU)[19] permitted the launch of OBA in Senegal as part of a drive to increase financial inclusion. Their focus on simplicity and availability aims to offer customers more choices and contribute to the BCEAO's financial inclusion objectives in Senegal.

Across Africa, successful MNO-bank partnerships are balancing a complex mix of competencies, responsibilities and risk appetites. Development finance institutions (DFIs), such as the International Finance Corporation (IFC), have supported such partnerships by serving as a reliable intermediary and setting them up for sustainable impact and profitability. The IFC's experience has shown that MNOs and FSPs that are keen to partner can benefit from the following:

- A proportional risk-profit commercial model to maintain a healthy balance of risk- and profit-sharing
- Each party focuses on their respective strengths while benefiting from the other's core competencies
- Agreements on who owns the customer and on consumer protection requirements, such as data privacy and responsible finance
- Well-defined roles and responsibilities embedded in the partnership contract

The IFC has provided OBA with technical support and a novel three-year (2022–2025) risk-sharing facility that offers a 50% guarantee on a digital loan portfolio worth up to $30 million. This is expected to fund the growth of OBA's digital lending products for MSMEs, which in turn are expected to disburse an additional 300,000 loans by 2025 in Côte d'Ivoire and Senegal. According to a 2023 IFC survey of OBA customers, the typical Tik Tak customer is in their mid-thirties, lives in Abidjan (Côte d'Ivoire's largest city) and has taken out two loans with an average value of $57. At least 43% of customers use the loans for business purposes, 33% of whom are women business owners. This represents half of all women customers.

Between 2020 and 2023, OBA distributed more than 2.4 million digital microcredits.

[19] WAMU is a supranational bank supervisor established in 1990 as an institution within the BCEAO. It is the banking supervisor for the eight countries of the West African Monetary Union: Benin, Burkina Faso, Guinea Bissau, Côte d'Ivoire, Mali, Niger, Senegal and Togo.

At least 43% of customers use the loans for business purposes, 33% of whom are women business owners. This represents half of all women customers.

Image credit: Freepik.com

03

Balancing a changing ecosystem and commercial growth

The value of money circulating in the mobile money ecosystem grew by 9% in December 2023 compared to December 2022 (*Figure 16*). This was more than double the growth rate of incoming transactions (4%) and outgoing transactions (3%). In 2019, one in every ten dollars circulating in the mobile money ecosystem was spent on merchant payments; in 2023, it rose to two in every ten dollars.

This marks a shift in user behaviour away from the basic transactions that popularised mobile money in its infancy towards payments for goods and services. While cash-in remains the dominant avenue for funds entering the mobile money ecosystem, inward international remittances rose by 1% in December 2023 relative to the previous year. The proportion of outgoing cash-based transactions rose by 2.5%.

In December 2023 for every

$1 cashed in

$0.8 was cashed out

Figure 16: **The ins and outs of mobile money, December 2023**

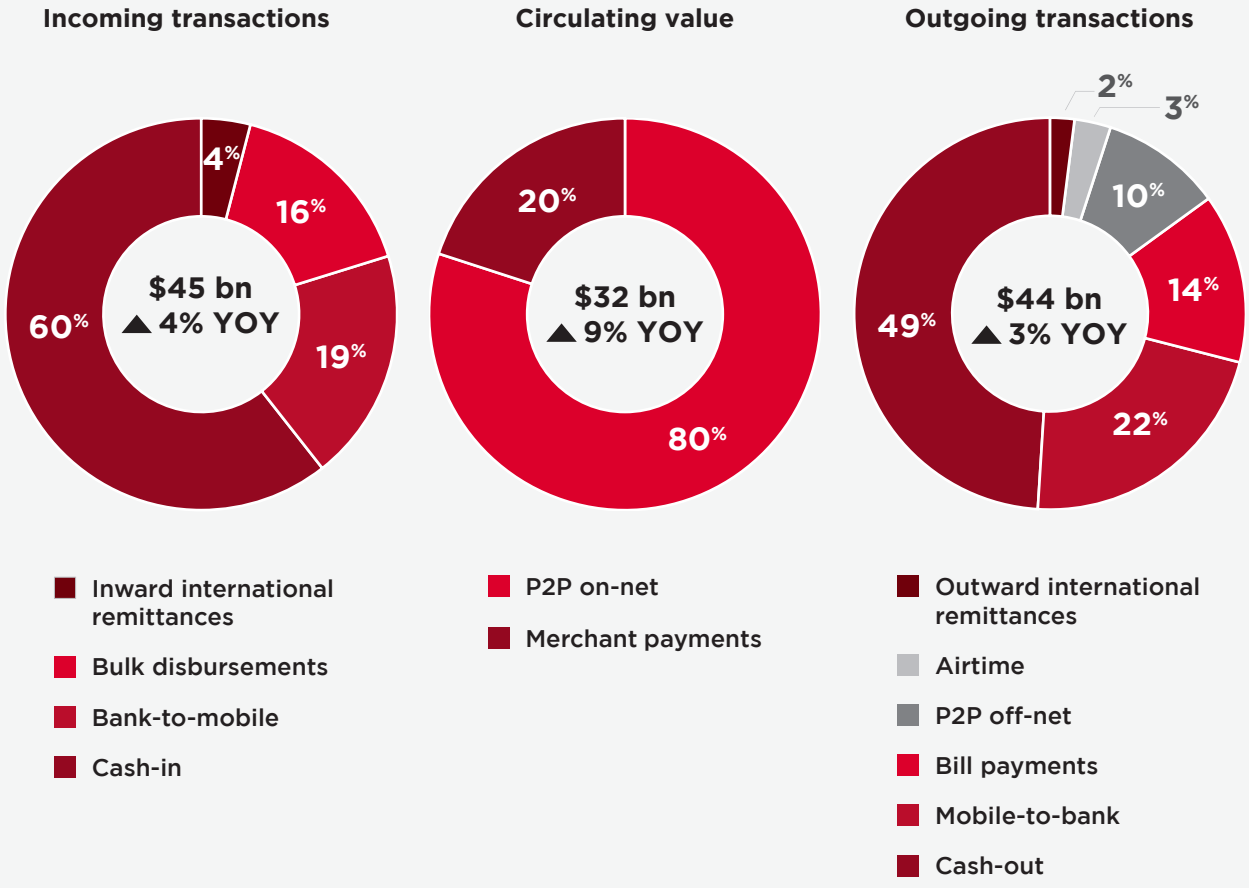
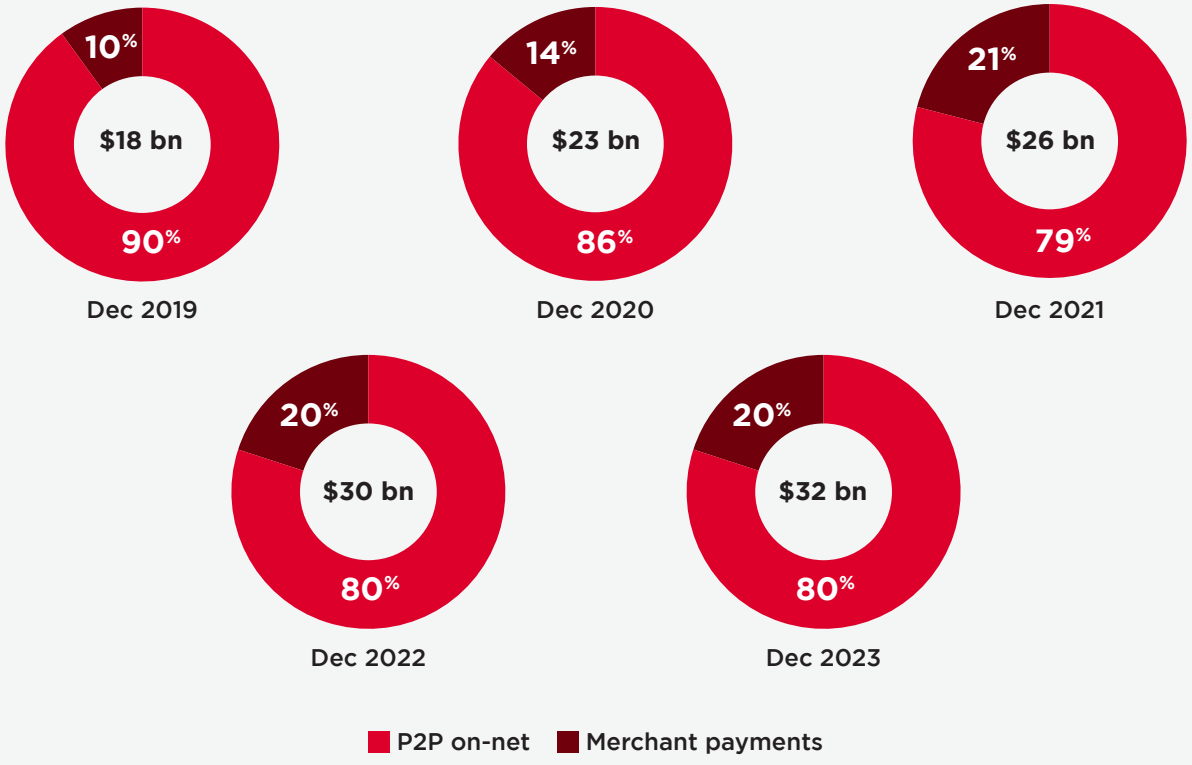


Figure 16 (continued): **Circulating value 2019–2023**



Source: GSMA Global Adoption Survey and estimates

Overall transaction value and volume growth slowed down

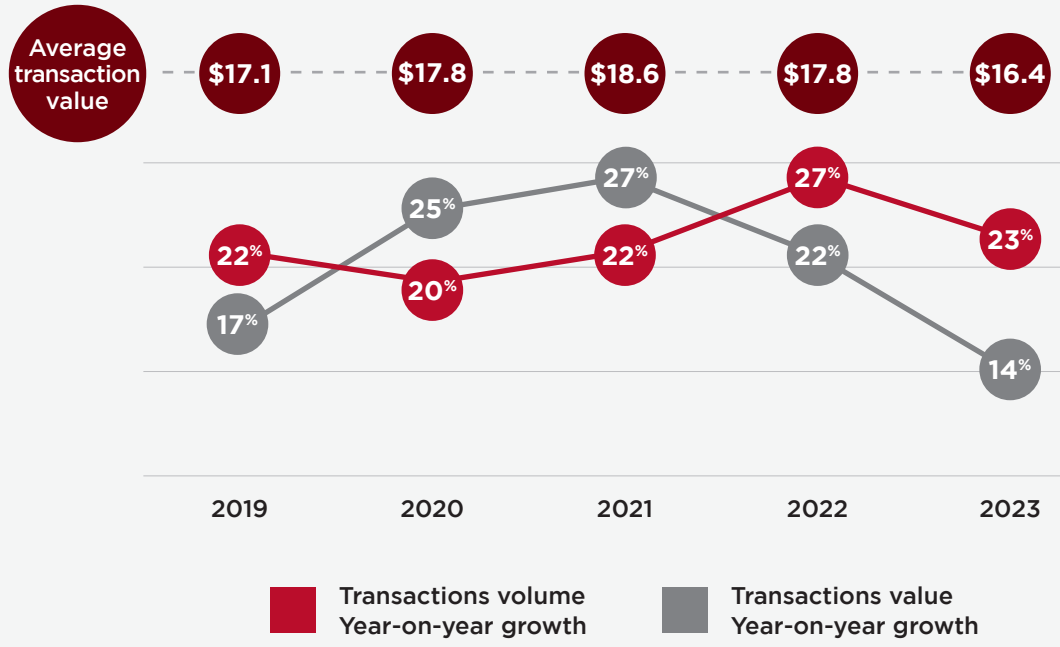
In 2023, at least $1.40 trillion flowed through the mobile money ecosystem worldwide. Transaction values grew by 14% in 2023 – a slower rate than in 2022 (22%) and 2021 (27%). While transaction volumes also grew at a slower rate in 2023 (23%) relative to 2022 (27%), they expanded faster than transaction values. This led to the average value of mobile money transactions falling by over two dollars between 2021 and 2023 from $18.6 to $16.4 (*Figure 17*). This change is due to mobile money now being used more often but for slightly smaller transactions. Overall, the average mobile money account is still being used for more transactions than before – contradicting the idea that economic pressure might have affected spending power.

In 2023, at least

$1.40 tn

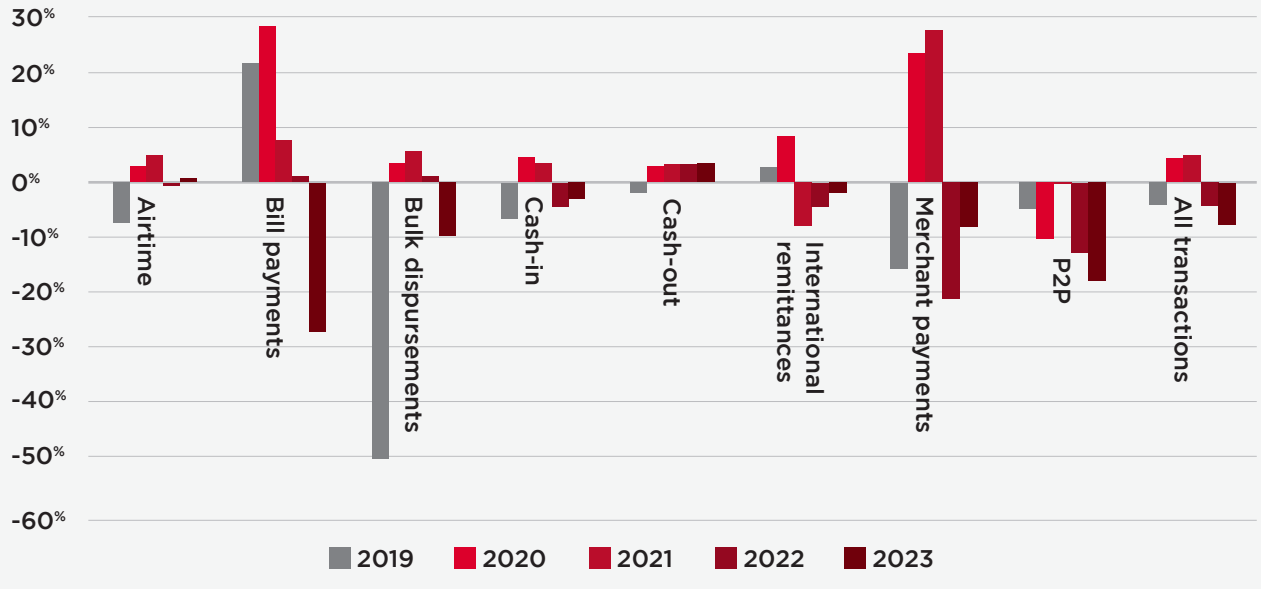
flowed through the mobile money ecosystem worldwide.

Figure 17: **Transaction volume and value growth rates and average transaction value, 2019–2023**



The same trend can be seen across most mobile money use cases. Except for airtime top-ups and cash-outs, the average transaction values of all other use cases shrunk in 2023 (*Figure 18*). Falling average transaction sizes were common before the COVID-19 pandemic, with average transaction values falling by 4% in 2019. However, rising demand for digital payments brought on by widespread lockdowns contributed to higher average transaction sizes in 2020 and 2021.

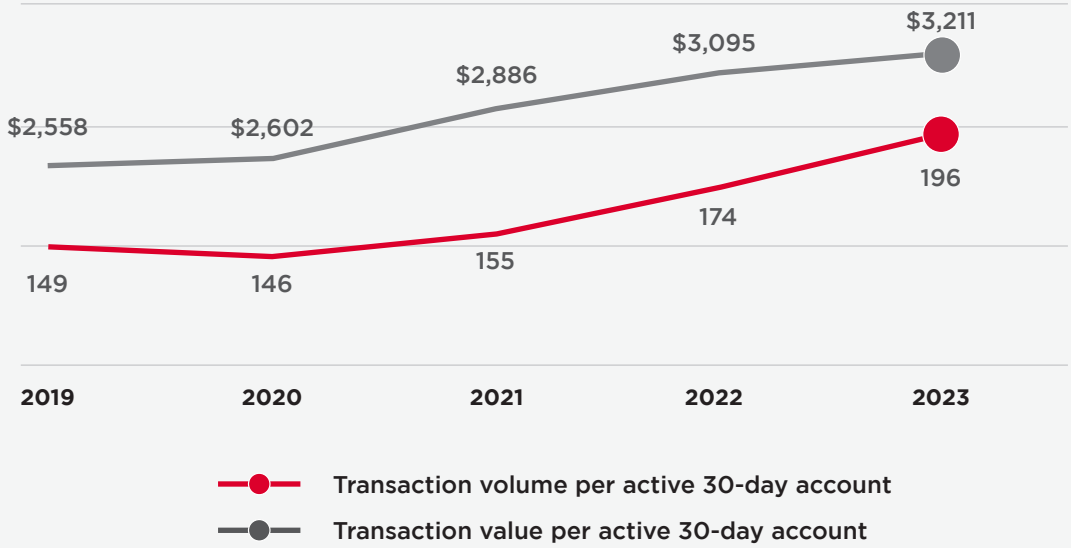
Figure 18: **Year-on-year percentage change in average transaction value per use case, 2019–2023**



Source Fig 17 & 18: GSMA Global Adoption Survey and estimates

Active mobile money users have been transacting more often annually, and at higher values, every year since 2020. Since the frequency of transactions carried out by these active users has grown faster than the amounts transacted, the average value of transactions dropped in 2022 and 2023 – when using the 2019 average transaction volume and transaction value per active user as a benchmark (*Figure 19*).

Figure 19: **Annual transaction volume and value per active 30-day account, 2019–2023**



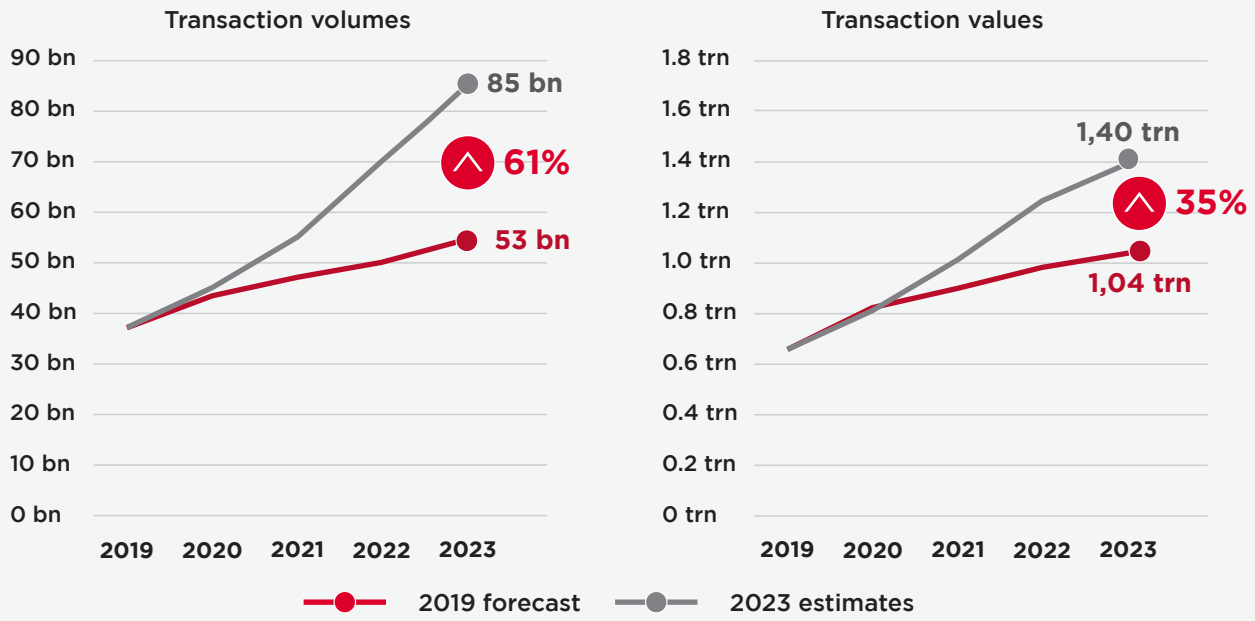
Source: GSMA Global Adoption Survey and estimates

BOX 1: The impact of COVID-19 on mobile money transactions

By comparing forecasts from 2019 (pre-pandemic) and data from 2023 (post-pandemic), the GSMA Mobile Money team have assessed the impact of the COVID-19 pandemic on mobile money transactions (*Figure 20*). The pandemic has supported faster growth in transaction values and volumes in the long term. In 2020, transaction volumes were 4% higher than forecast before the pandemic, while transaction values were 2% lower than forecast. From 2021 onwards, both transaction volumes and values significantly surpassed forecasts.

By 2023, transaction volumes were 61% higher than forecast, while transaction values were 35% higher than forecast.

Figure 20: **Forecasts and estimates for transaction volumes and values, 2019–2023**



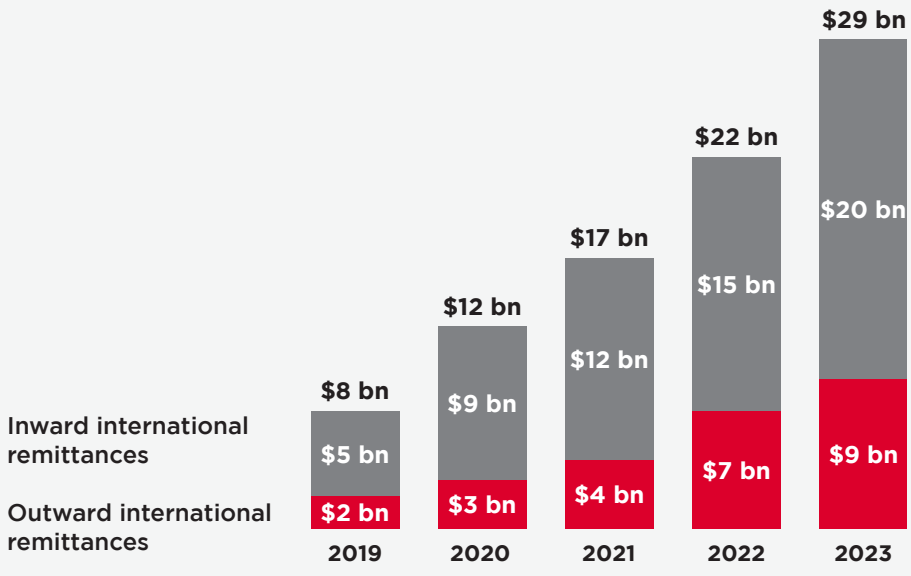
Use case growth

International remittances grew faster than other use cases

International remittances were the fastest-growing mobile money use case in 2023. Transaction values grew year-on-year by one-third to almost $29 billion. The bulk of this growth (60%) came from West Africa.

Between 2019 and 2023, the value of inward international remittances has consistently been at least double the annual value of outward international remittances (*Figure 21*).

Figure 21: **Mobile money enabled international remittances transaction values, 2019–2023**



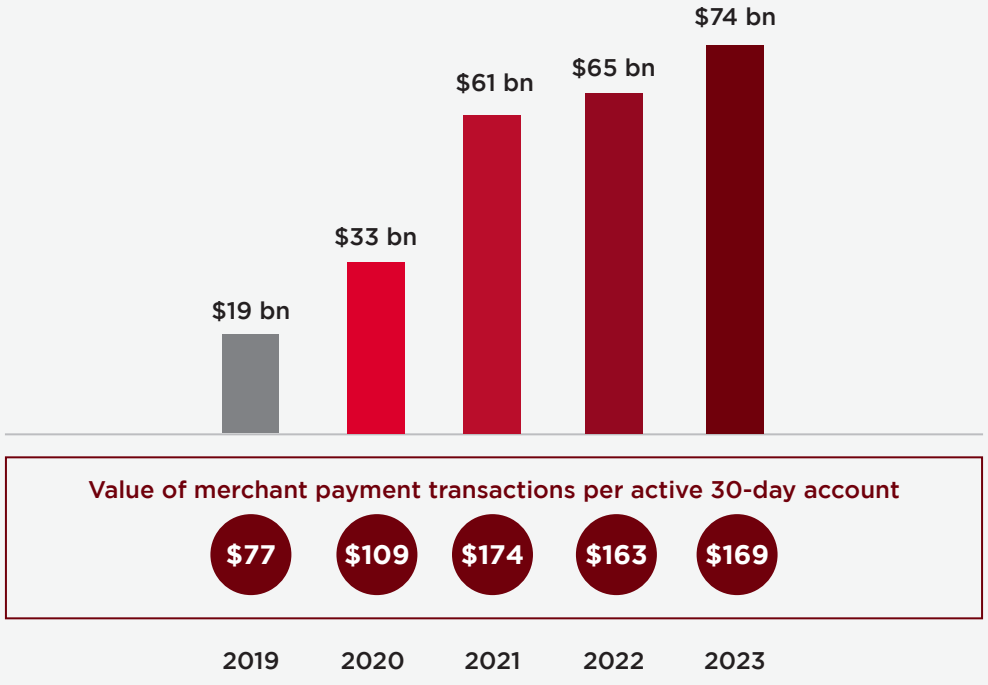
Source Fig 20 & 21: GSMA Global Adoption Survey and estimates

This is reflected in the average number of unique accounts receiving international remittances every month growing by 41% between September 2022 and June 2023, while unique senders grew by 17% over the same period. The growth in international remittances can be attributed to more mobile money providers offering this use case. In 2023 77% of Global Adoption Survey respondents offered international remittances – a third more than the previous year.

Merchant payments continued to grow at a steady rate

Merchant payments expanded by 14% in 2023 to almost $74 billion (*Figure 22*). They continue to be an integral part of everyday life for mobile money users. The number of transactions per active account has increased steadily each year since 2019. The average transaction value per active account was $169 in 2023, the highest it has been in five years save for 2021.

Figure 22: **Merchant payments transaction value, 2019–2023**



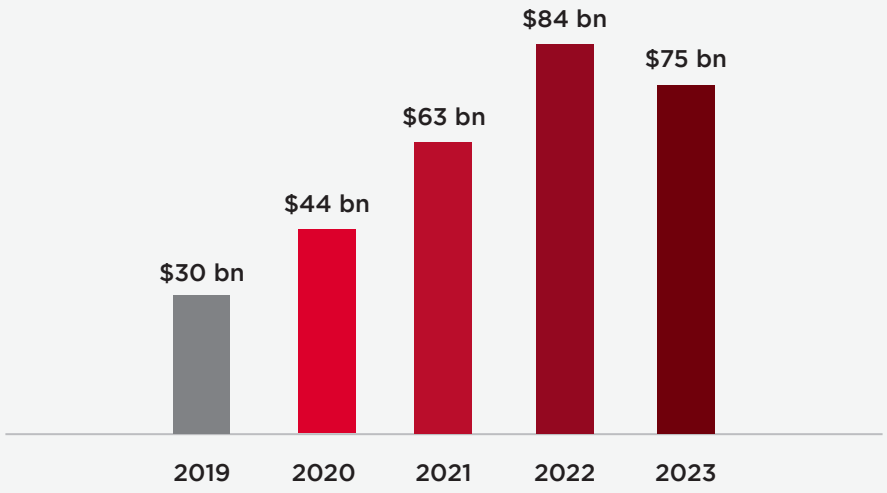
Source: GSMA Global Adoption Survey and estimates

While proximity payments make up the bulk of these transactions, online payments are expanding fast. Among 2023 Global Adoption Survey respondents, the average value of online merchant payments grew by almost a third between September 2022 and June 2023. Over the same period, the number of merchants active every month rose by 20%.

Bill payment transaction values dropped

Global bill payment transaction values shrank for the first time in 2023, falling by 11% year-on-year to $75 billion (*Figure 23*). However, transaction volumes increased by 23% year-on-year. This led to a significant drop in average transaction value from $14 in 2022 to $10 in 2023.

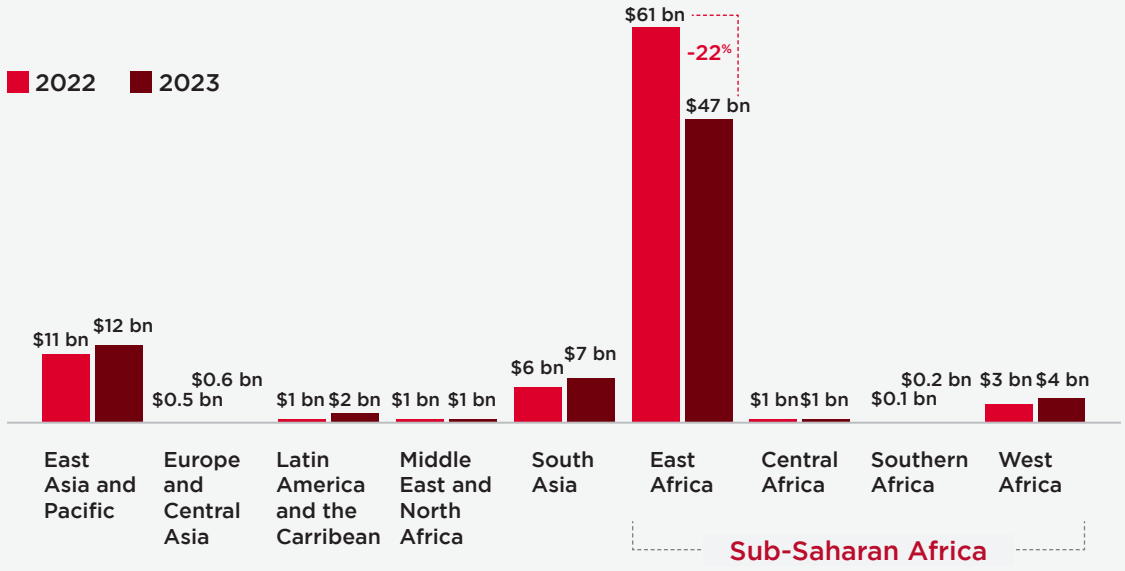
Figure 23: **Bill payments transaction values, 2019–2023**



Source: GSMA Global Adoption Survey and estimates

The drop in bill payment values was not evenly spread across all regions worldwide. Bill payment values grew everywhere except for East Africa, where they fell by 22% (*Figure 24*). This drop was driven primarily by consumer behaviour changes in Kenya *(see Box 2)*.

Figure 24: **Bill payments value by region and sub-region, 2022–2023**



Source: GSMA Global Adoption Survey and estimates

Most mobile money providers offer bill payments. In 2023, 93% of survey respondents offered the use case. On average, each survey respondent that offers bill payments is integrated with 196 billers – a 12% rise relative to 2022. As reported in 2022, electricity companies remain the largest billers in 2023.

BOX 2: Why bill payments dropped in Kenya in 2023

In Kenya, bill payments take two forms: a mobile-to-bank transfer or a mobile-wallet to mobile-wallet transfer. Reintroducing charges on mobile-to-bank bill payments led to a reduction in these types of transactions. On the other hand, mobile-to-mobile bill payments continued to grow in 2023.

However, due to smaller ticket sizes, the overall value of bill payments in Kenya dropped.

This contributed to the growth in bill payment volumes and the reduction in average transaction values seen globally.

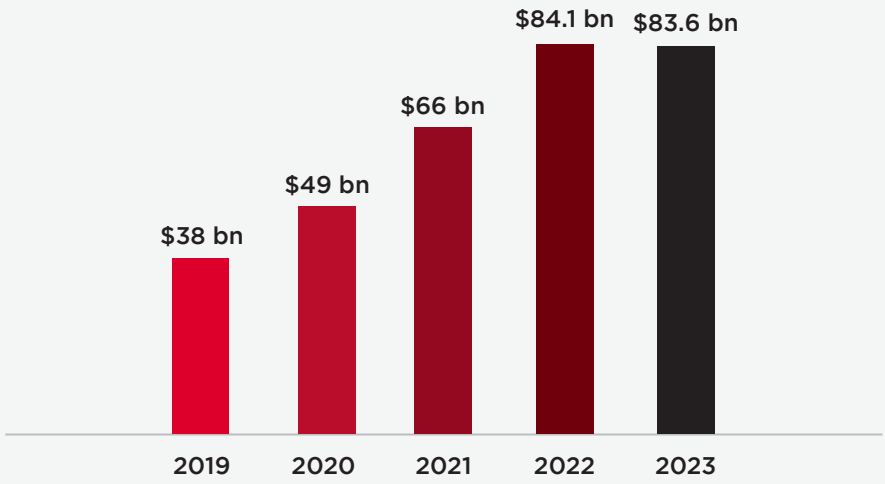
Two-thirds of global bill payments in 2023 originated from Kenya.

Because of this dominant share, the country's domestic payment trends can affect global trends.

Bulk disbursement values dropped too

Bulk disbursements fell in value for the first time in 2023 too, albeit to a lesser extent than bill payments. Year-on-year, bulk disbursements dropped by 1% to $83.6 billion (*Figure 25*). Like bill payments, bulk disbursement volumes grew in 2023 by 10%, leading to a drop in the average transaction value from $29 in 2022 to $26 in 2023.

Figure 25: **Bulk disbursements value, 2019–2023**



Source: GSMA Global Adoption Survey and estimates

This trend was also driven by regulatory changes in Kenya. The reintroduction of bank-to-wallet transaction charges led to a 12% drop in bulk disbursement values in East Africa in 2023.

Despite the impact on overall transaction values, organisations and governments around the world continue to benefit from using bulk payments. Between September 2022 and June 2023, the average number of unique customers

who received a government payment through bulk disbursements grew by 22%. The number of unique accounts receiving salary payments grew by 39% over the same period. Mobile money remains a preferred channel to digitise humanitarian cash transfers:

Almost

one-third

of 2023 survey respondents partner with humanitarian organisations to offer this service.

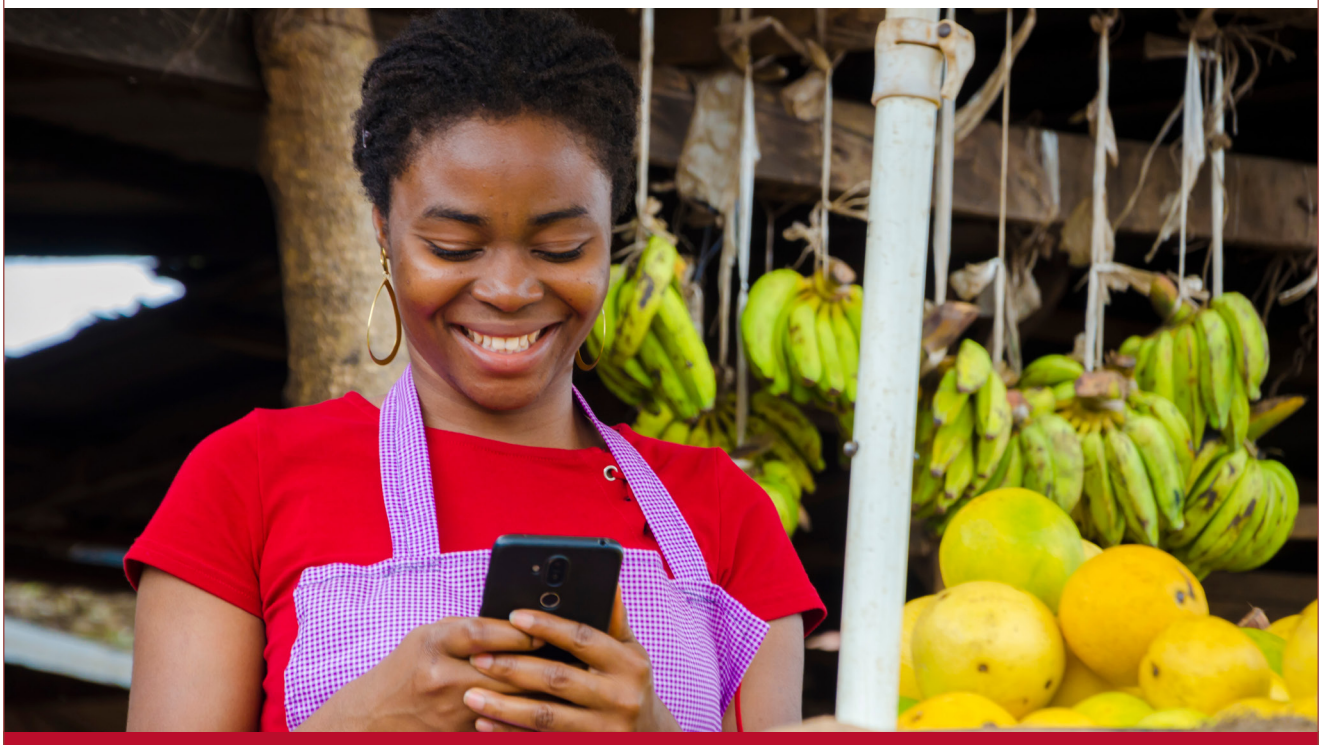
BOX 3: E-kyash: Growing mobile money bulk payments in Belize

E-kyash, Belize's first mobile money service, was launched in 2021 by Belize Bank Limited – two years after the Central Bank of Belize published its National Financial Inclusion Strategy.

The service made significant progress in its first year: at least 47,000 users – over a tenth of the country's population – had signed up.

In rural areas, around 13,000 people have adopted E-kyash – including 3,000 agricultural workers, many of whom were previously unbanked due to a lack of identity documents (ID). E-kyash offers several use cases that are typical of many mobile money services. However, their innovative approach to bulk payments has had a significant impact on financial inclusion, particularly among migrants. Many employers in Belize are not only able to pay salaries, but also use the bulk payments service to apply and pay for temporary work permits for seasonal workers.

This has improved administration for several companies that employ seasonal migrant workers, many of whom come to Belize to work in the citrus and banana subsectors. Previously, temporary work permit applications could only be obtained after an in-person visit to the Treasury Department that would typically involve a long wait. Workers have also benefited from rapid financial inclusion and receiving salary payments digitally. As use cases have evolved, mobile money is now being used more frequently to pay bills and merchants and to make P2P transfers.



Bank-to-mobile and mobile-to-bank transaction volumes and values both grew

The combined value of bank-to-mobile and mobile-to-bank transactions was $210 billion in 2023, an increase of more than 250% since 2020. Many users are making these transactions more often than in the past, leading to a drop in average transaction values between 2020 and 2023 (*Figure 26*).

The dramatic growth in transaction volumes is the result of MMPs being connected to more banks than before.

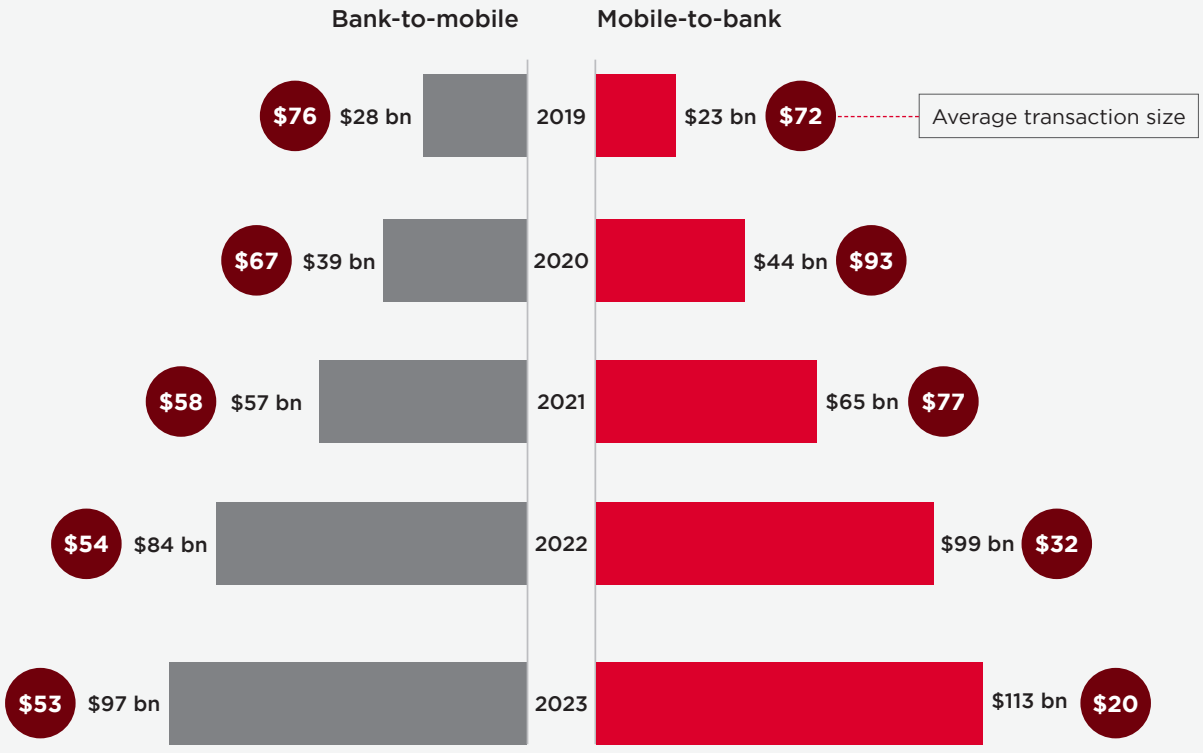
In 2023, survey respondents were connected to 27 banks on average –

almost

50%

more than the previous year.

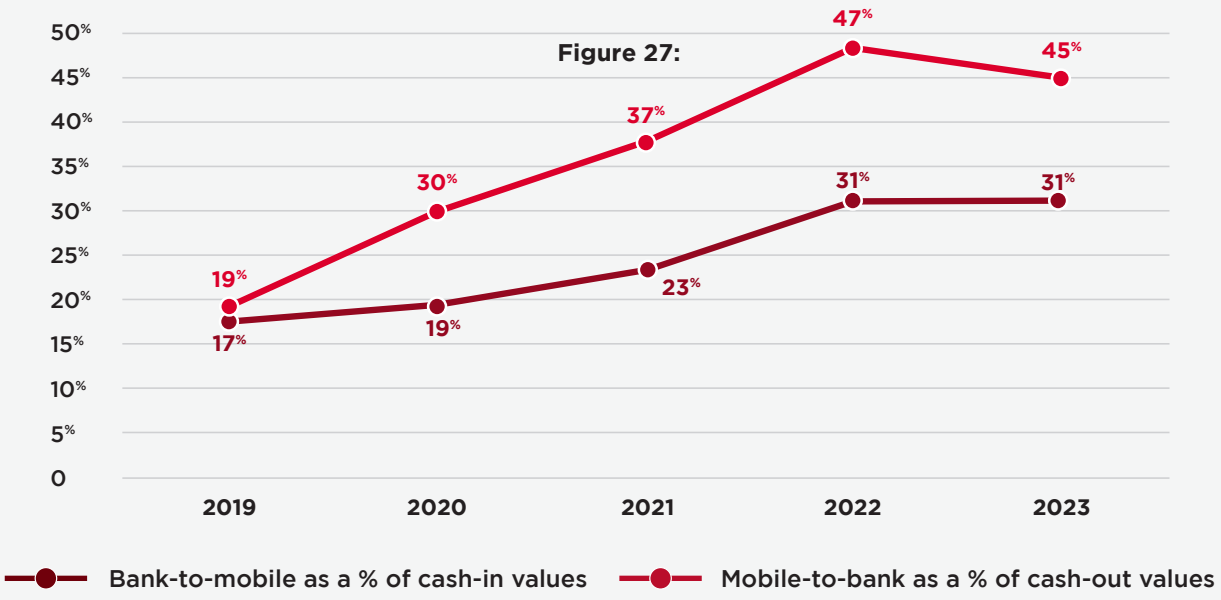
Figure 26: **Bank-to-mobile and mobile-to-bank transaction values, 2019–2023**



Source: GSMA Global Adoption Survey and estimates

While cash-in is the most widely used entry point for funds, bank-to-mobile transfers are catching up (*Figure 27*). In 2023, these were equivalent to almost a third of the value cashed in. More funds are exiting the ecosystem through mobile-to-bank transactions, equal to almost half the value of cash-outs in 2023.

Figure 27: **Bank-to-mobile and mobile-to-bank transaction values as proportions of cash-in and cash-out values, 2019–2023**



Source: GSMA Global Adoption Survey and estimates

Mobile money-enabled adjacent financial services in 2023

Global adoption survey respondents who offered an adjacent service by year

	Credit	Savings	Insurance
2022	41%	39%	14%
2023	46%	44%	23%

Credit

Productive credit remains the most popular adjacent financial service offered by MMPs. The number of unique customers who received loans through their mobile money accounts went up by nearly 20% between September 2022 and June 2023. During the same period, the cumulative number of loans disbursed rose by 60%. While more users were taking out credit, they were also taking out more loans than before.

The number of credit products offered by MMPs has increased, too. Among a sample of providers who responded to the Global Adoption Survey in both 2022 and 2023, the number of products they offered went up by 73% year-on-year. This sample represented just under 45% of all MMPs that offered a credit product.

The number of credit providers has also risen year-on-year, due to an increase in the number of partnerships. Around 36% of survey respondents had partnered with a bank or other formal financial institution, while a quarter of respondents had partnered with a fintech. This represents a significant year-on-year increase from 2022 when 30% of respondents had partnered with a bank and less than 20% with a fintech.

Savings

Savings is now the second most popular adjacent financial service, with more MMPs offering savings products compared to 2022. As a result, more users are saving through mobile money than before. The cumulative number of unique customers that transferred funds to savings accounts increased by 38% between September 2022 and June 2023. Importantly, more women are thought to be using mobile money to save money than before. While only a small number of MMPs collect gender-disaggregated data, those that do found a 98% increase in the cumulative number of unique female customers saving money via mobile money.

While mobile money-based savings products have increased the number of savers and the amount of money held in savings, regulations in many countries do not permit MMPs to pay out interest earned from their respective trust accounts. This has not deterred people from saving, however, and mobile money has enabled a culture of savings in some countries. For instance, PosoMoney in Botswana found that many customers were using their mobile money accounts to save money despite receiving no interest on their balances. While this was due to PosoMoney's ability to offer access to financial services to remote customers, the convenience of mobile money also played a role.

Insurance

Insurance is the adjacent financial service offered least by MMPs. However, the number of providers offering insurance has grown at a faster rate than for credit or savings. Bolstered by the success of MTN's aYo hospital and life insurance cover in several markets in Sub-Saharan Africa, more MMPs are looking to offer insurance. For instance, Airtel Money launched insurance services in 2023 in Zambia, Malawi, Kenya and Uganda. All were launched through partnerships.

Currently, nearly 80% of MMPs that provide insurance offer life or funeral cover, as well as hospital cover. Embedding insurance with other products remains a key strategy for some, rather than launching standalone products for voluntary uptake. This applies to insurance services launched by MNOs, as well as MMPs. For instance, Safaricom launched an insurance service in partnership with Britam Insurance in 2023 in Kenya. Safaricom's customers can buy data bundles (using either airtime or mobile money) and receive insurance coverage for medical expenses, permanent disability and funeral expenses.

All mobile-enabled insurance services are based on partnerships with underwriters and technical service providers (TSPs).

TSPs play an important role in designing mobile-enabled insurance products, providing the technological platform behind the service, and managing customer registration and troubleshooting. Several TSPs have designed mobile-enabled products, including Inclusivity Solutions and Bima Milvik. Some underwriters have shown consistent interest in underwriting mobile-enabled microinsurance policies. For instance, Britam has trialled several products (including Linda Jamii, launched with Safaricom in 2014), many of which have had a full launch.

BOX 4: Airtel Money's pivot to insurance

In 2023, Airtel Money made a strategic move by re-entering the mobile-enabled insurance space. The MMP has launched five new products across Kenya, Malawi, Uganda and Zambia (*Figure 28*), enhancing their customer offering in the process.

Figure 28: **Insurance products launched by Airtel in 2023**

Month	Country	Product name	Cover	Underwriter	TSP
March	Uganda	Hospital Sente	Hospital cash insurance with funeral benefits	Prudential Assurance Uganda	Turaco Insurance Brokers Ltd
May	Zambia	Umoyo Funeral Cover	Funeral insurance	Absa Life Zambia	Inclusivity Solutions
May	Malawi	Limodzi Insurance	Personal accident and hospital reimbursement	Britam Insurance	Inclusivity Solutions
August	Kenya	Bima Cover	Hospital cash, funeral and personal accident	Britam Insurance	Inclusivity Solutions
October	Uganda	Ddwaliro Care	In-patient health with funeral coverage	AAR Health Services	Bluewave Insurance Agency
December	Tanzania	Afya Poa and Afya Supa	Hospital cash and inpatient cover	Jubilee Insurance	Axieva

Source: GSMA Mobile Money

Mobile-enabled insurance products have the potential to improve financial inclusion given their simplicity and reach. Insurers are keen to partner with MNOs and MMPs to scale and increase penetration through their vast and established digital distribution networks. Partnering with MNOs or MMPs could help insurers achieve frictionless product roll out; building a similar distribution network would require significant investment. With more than 31.5 million[21] mobile money users across 14 markets in Sub-Saharan Africa, Airtel Money is well positioned for such a joint venture.

Careful selection of partners and collective industry knowledge were key to the successful launch of each of Airtel's insurance products. Every market has different regulatory, customer and financial literacy needs. As a result, Airtel Money's partnerships with underwriters and TSPs required specific market knowledge to design customer-centric and market-relevant products. Mobile-enabled insurance for the mass market has often been a difficult product to launch. Airtel Money's success strategy is based on several factors:

- **Prioritising future growth:** The insurance business should have product expertise and support from senior leadership.
- **Support pillars:** Products should be distributed via an efficient business operating model and mutually beneficial partnership strategies. Customer education is essential, as much of the target audience is likely to be using insurance for the first time. Technology partners with purpose-built systems are also key to scaling up products.
- **Distribution:** This should include a multi-channel approach that includes ground agents and call centres that can explain the products to customers, help them register and provide troubleshooting assistance.
- **Payment strategy:** The ideal scenario would mirror traditional insurance, with premium payments debited directly from customers' accounts. The introduction of standing orders by some MMPs has the potential to replicate this.

[21] Airtel. (2023). Transforming Lives: Airtel Africa plc Annual Report and Accounts 2023.

Although still in the early stages, Airtel's shift to insurance products has been supported by compatible partnerships and enhanced customer and product awareness.

Image credit: Pexels.com

How mobile money is transforming savings in Africa

There has been no increase since 2017 in the overall share of adults who save, according to the Global Findex 2021. This is likely to have disappointed advocates of savings as an anti-poverty tool in Sub-Saharan Africa. Yet how people save has changed dramatically, with a significant shift toward formal saving enabled by mobile money.

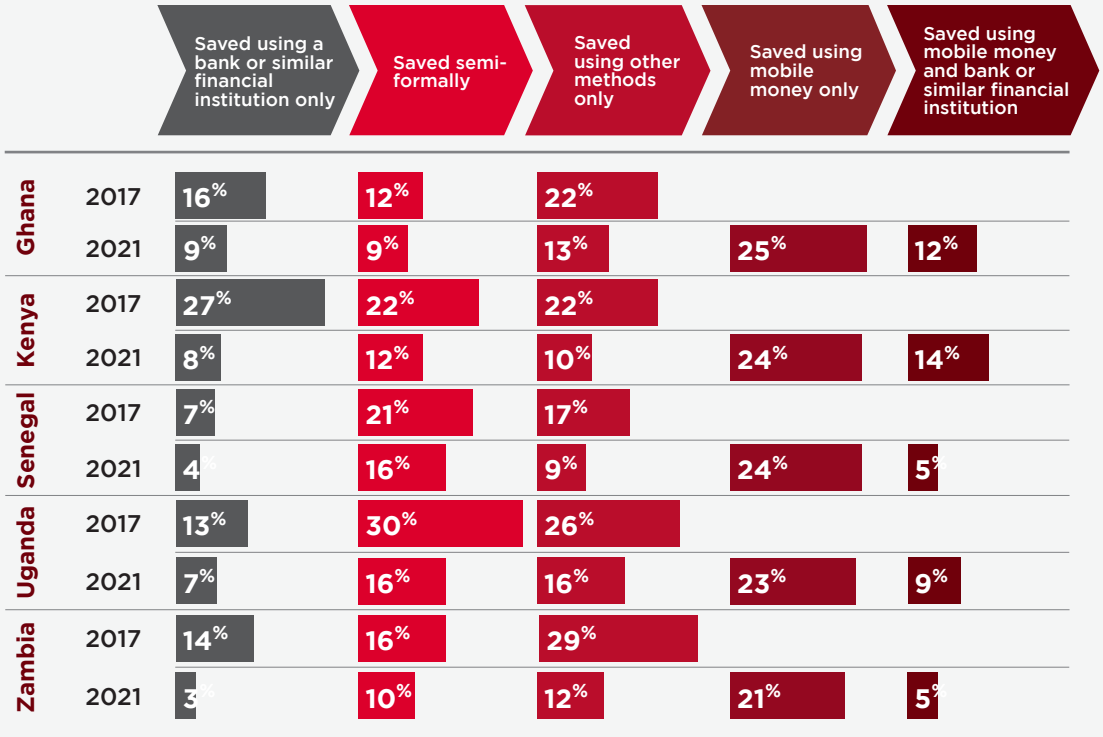
Digital financial products are driving a surge in more formal forms of saving

On average, just over 55% of adults save in any way across Sub-Saharan Africa. A little over half of them – or 26% of all adults – saved formally in 2021, representing a noteworthy increase of 11 percentage points since 2017. This marks the first time that most savers in the region used formal methods rather than 'semi-formal' ones[22], or other methods such as storing money under the mattress. Mobile money accounts, owned by 33% of adults in the region, have enabled this shift.

Formal savings nearly doubled in Sub-Saharan Africa—driven by mobile money

Mobile money had a more dramatic effect on saving practices in some countries compared to others (*Figure 29*). In Kenya, for example, the share of adults who saved any money was about 70% in both 2017 and 2021. However, the share who saved formally increased in that time by 18 percentage points to 45% in 2021. This means that almost 70% of savers used an account, including 35% of savers (almost a quarter of all adults) who only used their mobile money account to save.

Figure 29: **Adults saving any money in the past year (%), 2017–2021[23]**



Source: Global Findex database, 2021

[22] This includes a daily savings collector (who charges a fee) or a Rotating Savings and Credit Association (ROSCA).
[23] In 2017, adults were asked if they saved at any formal financial institution; data on saving in mobile money accounts was only collected in 2021.

Women, mobile money and savings

Women have particularly benefited from the convenience that mobile money offers for saving. In Senegal, for instance, only 6% of women saved using a traditional bank or similar financial institution account as of 2021; around four times more women chose mobile money. Similar trends were observed in Kenya, Uganda and Zambia, where the share of women saving via mobile money accounts was more than double that of women using banks or similar accounts.

Mobile money offers a convenient and essential alternative to women who may otherwise find it difficult to travel to a bank due to transport costs, family responsibilities or social norms. Earlier editions of Global Findex found that before mobile money became available, even women with traditional bank accounts relied on semi-formal saving methods. The appeal of mobile money lies in its ability to facilitate frequent, sometimes daily, low-value savings deposits through a cost-effective and convenient model. This effectively breaks down the barriers of cost, distance and convenience that many customers face.

The supply of mobile money savings products is growing to meet demand

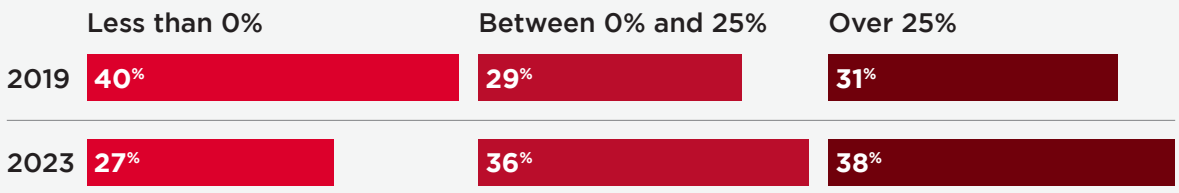
While mobile money accounts may not always incorporate formal savings features, the landscape is evolving. Innovative models are also emerging, aimed at digitising semi-formal savings groups such as Chamas in Kenya or VICOBA burial societies in Tanzania. MMPs are also launching products with similar features, such as M-PESA Chama in Kenya, EcoCash Savings Club in Zimbabwe and M-Koba in Tanzania.

Mobile money accounts hold promise for making savings more convenient and accessible. To scale their impact, adults must have access to essential infrastructure. This includes a mobile phone, regulations that encourage interoperability between MMPs and interest-bearing accounts, as well as stronger consumer protections to ensure that mobile savers have avenues for recourse in case of fraud or mistakes.

Mobile money profitability in 2023

During the COVID-19 pandemic, several regulators in low- and middle-income countries (LMICs) reduced or zero-rated fees for digital financial transactions to reduce cash handling and the spread of coronavirus. While the suspension of transaction fees had an impact on the revenue of some MMPs, many have found a way to balance gains made during the height of the pandemic with profitability. Between 2019 and 2023, the percentage of survey respondents with a positive EBITDA[24] increased from just under 60% to more than 73% (*Figure 30*).[25] Importantly, the number of respondents with an EBITDA above 25% grew from 31% in 2019 to 38% in 2023.

Figure 30: **Adults saving any money in the past year (%), 2017–2021[23]**



Source: GSMA Global Adoption Survey data

[24] EBITDA stands for Earnings Before Interest, Taxes, Depreciation, and Amortisation. It is an alternative way of measuring profitability in net income.
[25] GSMA Global Adoption Survey data.

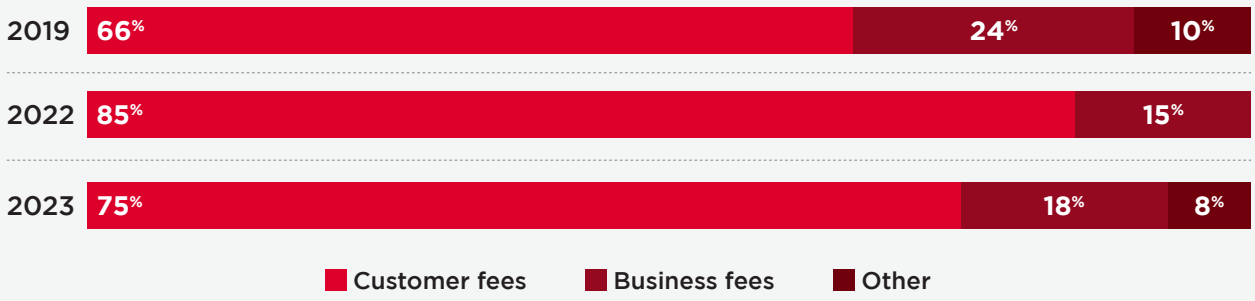
Part of the rise in EBITDA can be attributed to an increase in average revenue per user (ARPU). Survey participants' ARPU rose by 40% from $2.2 in September 2022 to $3.2 in June 2023. Overall revenue rose by a quarter during the same period: the lower increase rate in active 30-day users explains the higher increase in ARPU.

Agent commissions also affect MMPs' net income. Between September 2022 and June 2023, agent commissions grew by 15%. As a result, agent commissions as a percentage of revenue declined from 52% in September 2022 to 49% in June 2023.

In 2023, customer fees were the major source of revenue for around 75% of survey respondents (*Figure 31*).

This is an improvement from 2022 when 85% of respondents indicated that most of their revenue came from customer fees. However, this is higher than in 2019, when 66% of respondents reported this.

Figure 31: **Revenue origin split, 2019 vs 2022 and 2023**



Source: GSMA Global Adoption Survey data

Image credit: Freepik.com

04

Regulatory and policy trends in 2023

Several policy reforms launched in 2023 have the potential to lead to financial inclusion gains in mobile money markets. For instance, a reduced mobile money levy in Ghana and the removal of most mobile money taxes in Tanzania may see an increase in mobile money transactions. At the same time, increases in transaction limits – such as in Kenya – can increase the number of MSMEs using mobile money.

Beyond how policy shapes the industry, reinforcing trust in the mobile money industry is important given the values of funds held in financial institutions. Consumer protection can also be enhanced by bridging digital financial literacy gaps and through mobile money providers implementing fraud mitigation strategies.

Policy changes have been an important lever in the mobile money industry, but more can be done. For instance, restrictions on cross-border data transfers are beginning to affect mobile money users by limiting the products available to them. This runs the risk of slowing financial inclusion and should be given further consideration by providers and policymakers alike.

Taxation

Many governments across Sub-Saharan Africa are trying to raise more revenue from local sources and taxing mobile money transactions is one way to do this. Countries such as Côte d'Ivoire,[26] Gabon[27] and Kenya[28] have introduced or increased taxes on MMPs or mobile money users, either as a percentage of transaction values or providers' turnover. In Kenya, merchant payment data is now being requested as part of a recent tax enforcement push by the revenue authority. This has led to merchants opting for cash transactions over mobile money payments (*see Box 6*). Such taxes can make mobile money more expensive and less affordable for the people who need it most.

BOX 5: Why taxes risk reversing financial inclusion gains in Kenya[29]

The Central Bank of Kenya aims to drive financial inclusion by allowing mobile money providers to be innovative in offering products that meet customers' needs. Mobile money providers have typically focused on all types of users, including corporates, MSMEs and individuals, and how they use mobile money for their day-to-day transactions.

Merchant payments have proven to be a key driver for mobile money use and, therefore, for mobile money account adoption too. The Kenya Revenue Authority has started requesting information from a leading mobile money provider on businesses that are using mobile money payment services. As a result, many micro and small enterprises now prefer cash payments from customers instead of mobile money. Inadvertently, the likely net result is that customers may no longer find value in transacting through mobile money accounts and many may revert to cash.

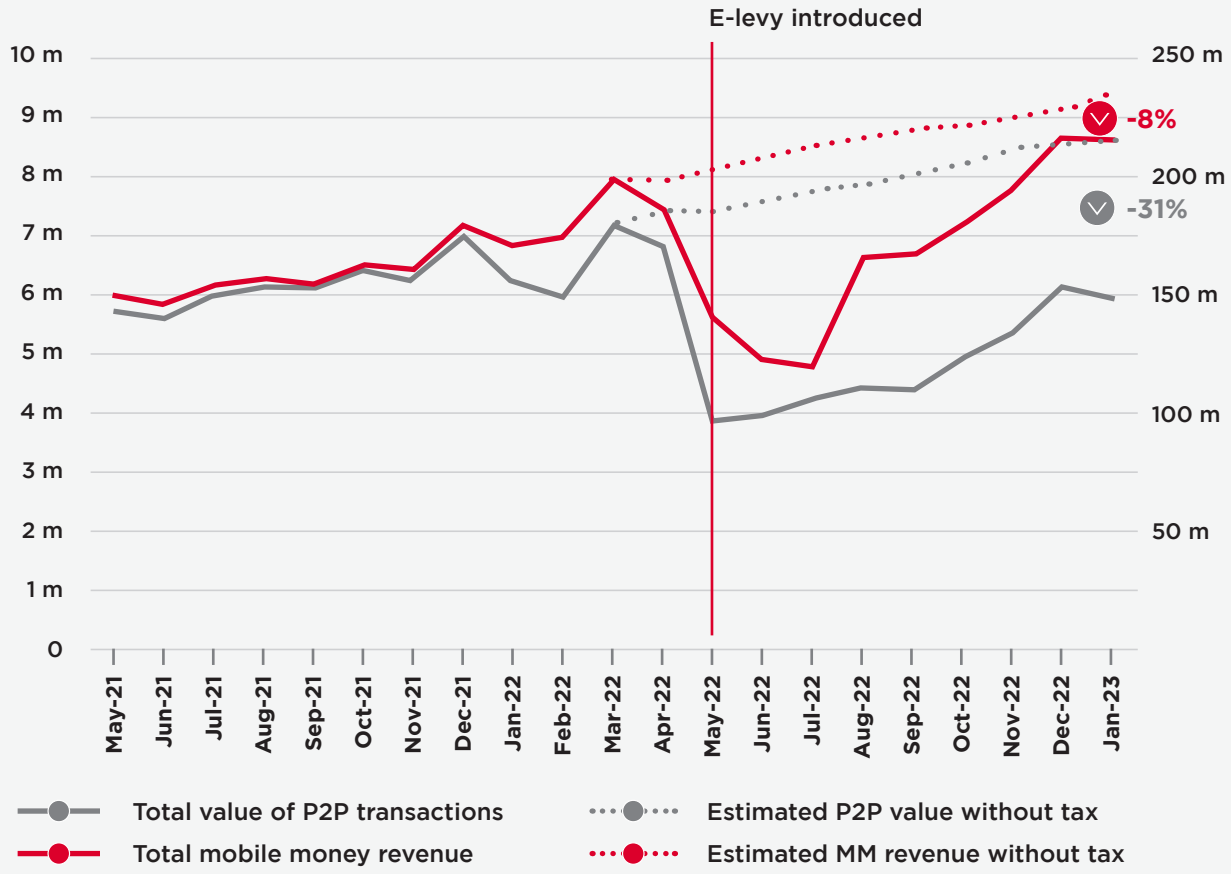
A similar precedence in Ghana and Tanzania shows that additional taxation on mobile money has ultimately led to lower tax revenue due to decreased mobile money revenue for providers.

[26] Republique de Côte d'Ivoire. (2023). Annexe Fiscale 2023.
[27] PwC. (14 July 2023). "Gabon – Corporate: Significant developments".
[28] Kenya Revenue Authority. (2023). Kenya Gazette Supplement No. 97 (Acts No. 4) – The Finance Act, 2023.
[29] Munda, C. (18 October 2023). "Tax cheats ditch mobile payments to beat KRA". *Business Daily*.

Governments in Tanzania and Ghana have recognised the negative effects of taxing mobile money transactions. Following the introduction of transaction levies, mobile money users resorted to using cash. This led to a reduction in taxable mobile money transactions and an overall reduction in tax revenues.[30] As a result, both countries have either reduced or removed these taxes entirely.

Tanzania eliminated the levy on mobile money transfers and only retained the levy on cash withdrawals in June 2023; Ghana reduced the levy on electronic transactions from 1.5% to 1% in January 2023 (*Figure 32*). These actions can promote the use of mobile money and ultimately improve financial inclusion and innovation.

Figure 32: **Impact of e-levy on mobile money transactions in Ghana, 2021–2023**



Source: GSMA, (2023). The E-levy in Ghana: Economic Impact Assessment.

Financial literacy

Despite higher levels of financial inclusion, the financial health and digital financial literacy of consumers in LMICs remain low. Low financial literacy is one of the biggest obstacles to mobile money use among vulnerable consumers, such as women, persons with disabilities, youth, the elderly and rural residents. A lack of knowledge and understanding of basic financial concepts can lead to poor financial decision-making and vulnerability to scams and fraud. Governments and FSPs should prioritise financial literacy programmes for underserved populations and empower them to make informed financial choices.

[30] Penteriani, G. (2023). The E-Levy in Ghana: Economic Impact Assessment. *GSMA.*

Enhancing the digital financial literacy of consumers has become an urgent need because it is also key to boosting their financial health.

Rolling out effective initiatives that strengthen digital skills and financial literacy could substantially improve consumer protection.

This is especially important for underserved groups in LMICs, many of whom may be unaware of the protection or recourse mechanisms available to them. However, designing and implementing successful digital and financial literacy initiatives can be a complex process. Public and private sector entities, as well as civil society organisations (CSOs), should consider collaborating on content and strategies to reach end users.

Bridging digital financial literacy gaps goes beyond policy interventions – all stakeholders in the financial services sector need to act, including MMPs. Several providers are implementing financial literacy programmes. For example, 9PSB in Nigeria, Paytm in India[31] and M-PESA in Kenya are actively promoting financial literacy among their users. These providers have recognised the benefits of equipping their customers with the necessary knowledge and skills to make informed financial decisions.

Some regulators have also recognised the need to use digital financial services to drive financial inclusion and improve consumers' financial literacy to achieve their goals. As a result, many are resuming their efforts to include digital financial literacy and education in their financial inclusion frameworks and strategies. In the last year, several regulators in Sub-Saharan Africa have included digital financial literacy in their financial inclusion strategies:

- The Reserve Bank of Zimbabwe launched an initiative to increase awareness around financial services and products[32].
- South Africa's Financial Sector Conduct Authority published a draft conduct standard for financial institutions running financial literacy campaigns[33].
- The Central Bank of Tanzania, through the National Council for Financial Inclusion, has developed a guide for financial educators for 2023–2028 to enhance financial literacy in the country[34,35].
- The Central Bank of Nigeria has launched a review of its national financial education framework to highlight the changing financial services landscape and offer guidance on how to use digital payment bank providers and fintechs.

Consumer protection

Protecting financial consumers has become a key policy goal, especially after a global economic crisis that revealed the need for fair and responsible consumer treatment in financial markets. As more people use mobile money and other DFS, they may face risks such as SIM swaps, identity fraud and cybercrime. To maintain trust and confidence in the financial system, it is important to reduce these risks. For example, Safaricom in Kenya notifies customers of, and confirms, SIM swaps and has joined other banks to provide SIM swap checks and antifraud services.[36]

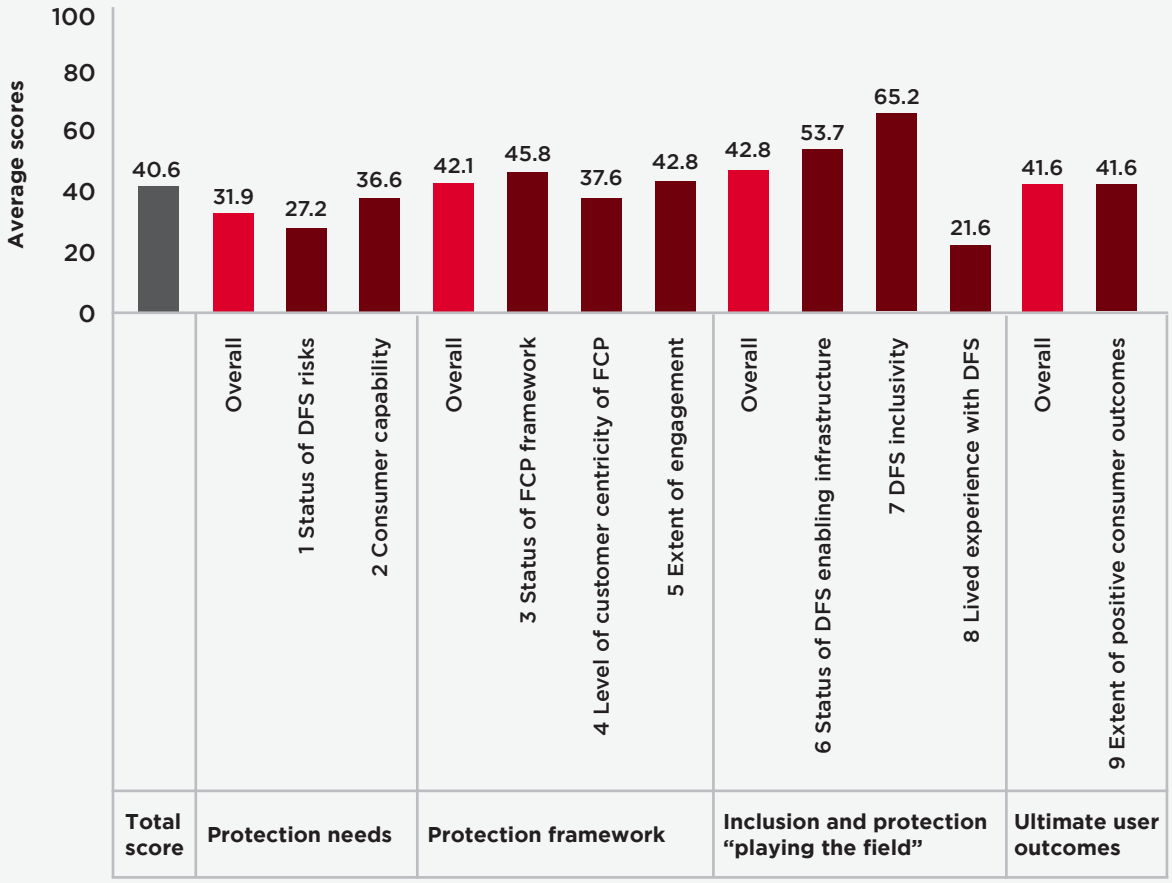
Mobile money policymakers and international development agencies are reviewing consumer protection frameworks to include provisions for the new and emerging digital realities we face. This includes the Fair Digital Finance Index for low- and middle-income accelerator member countries developed by Consumers International.[37]

[31] Paytm. (16 October 2023). "Empowering Women with our Financial Literacy Programme – Paytmers step up to Create Awareness and Drive Inclusion".
[32] Reserve Bank of Zimbabwe. (2023). The Financial Inclusion Bulletin, Volume 2, Issue 1 (January–December 2022).
[33] Financial Sector Conduct Authority. (31 March 2023). FSCA Communication 11 of 2023 (General).
[34] Bank of Tanzania. (2023). Guide for Financial Educators 2023–2028.
[35] The guide is designed to standardise the delivery of financial literacy programmes offered by financial educators. It also offers guidelines on certifying financial educators and the minimum financial capability areas that should be covered by financial literacy programmes.
[36] Safaricom. (2 March 2023). "6 Banks Take Up Safaricom SIM-Swap Check Anti-Fraud Solution".
[37] Consumers International. (2023). Digital Finance: The Consumer Experience, 2023.

The index is based on a baseline survey conducted by the accelerator and promoted through publicly available datasets.

The index points to an environment where DFS risks are rife, and the protection needs of most consumers remain unmet (*Figure 30*). It shows there are clear gaps in financial service consumer protection frameworks. This was revealed by low levels of customer centricity at 37.6 out of 100, below the average score of 50. A moderate score of 42.8 out of 100 on level of engagement between consumers, their advocates, FSPs and regulators suggests that efforts are being made to improve financial consumer protection frameworks.[38]

Figure 33: **Average index scores across elements and pillars that affect consumers**



Source: Consumers International. (2023). Digital Finance: The Consumer Experience, 2023.

Several consumer protection frameworks are under development:

- The **Bank of Tanzania** has rolled out a new financial inclusion strategy for 2023–2028 that focuses on women, youth, persons with disabilities, smallholder farmers and fisherfolk, and MSMEs. The strategy's objectives are to improve access, expand the use of a range of financial products and services, enhance the quality of financial products and services, and enhance the financial welfare of individuals and businesses.[39]

[38] Financial Sector Conduct Authority. (31 March 2023). FSCA Communication 11 of 2023 (General).
[39] Bank of Tanzania. (2023). National Financial Inclusion Framework (2023 - 2028): A Public-Private Stakeholders' Initiative.

- **The Organisation for Economic Co-operation and Development (OECD)** has updated its high-level principles on financial consumer protection[40], adding elements on digitalisation, financial well-being, and sustainable finance.
- The **Bank of Zambia** and the **Central Bank of Nigeria** plan to use artificial intelligence (AI) chatbots to educate and assist consumers.
- The **BCEAO** aims to develop a regional consumer protection policy.
- **Côte d'Ivoire** aims to establish a framework for digital financial services consumers.[41]

Cross-border data transfers

Developing data protection laws and regulations in Africa and Asia is increasingly important as these regions experience rapid digital transformation. Governments and regulatory bodies have recognised the need to establish comprehensive data protection frameworks to safeguard personal information and individuals' data privacy rights. Based on the GSMA's analysis,

36 out of 54 countries in Africa have developed or enacted data protection laws and regulations.[42]

Nineteen countries have signed the African Union's Convention on Cyber Security and Personal Data Protection (the Malabo Convention), while 15 countries have ratified it.[43] In the Asia-Pacific region, at least 34 countries have existing laws, while seven countries have draft legislation in place.[44] India's Digital Personal Data Protection Act (DPDP) 2023 was the most recent to be enacted.[45]

Introducing these laws is a positive move aimed at enhancing personal data-handling practices. However, some of these laws may impose strict data localisation requirements and rules that may affect how mobile money services are provided. This could risk eroding the financial inclusion gains achieved in several countries. Some requirements restrict cross-border data transfer, which can limit MMPs' operations, partnerships and cost of data storage services. Restricting cross-border data transfer can also limit the use of cloud storage services, which are considered more secure and reliable than alternatives.

In countries where regulators have established exemption rules, more clarity is needed, especially on adequacy, approval process time frames and procedures. Regulators should work together to harmonise cross-border data transfer rules to promote more innovation and technology efficiencies and enhance mobile money products. Harmonising rules could lead to an increase in consumer trust, privacy and security, and could enable seamless cross-border transactions. Collectively, this could boost economic growth and innovation.

Deposit protection

Reassessing current deposit protection mechanisms is an important priority for MMPs and regulators. Currently, most regulations require MMPs to separate customer deposits and their funds in tier 1 commercial banks with high-quality liquidity, short-term securities and central bank reserves. The economic impact of currency re-evaluation and rising debt in some countries means that alternative deposit protection, such as pass-through insurance, might be necessary. In the future, MMPs may need to enhance risk management and prudential requirements that consider market risk.

[40] OECD. (2022). Updated G20/OECD High-Level Principles on Financial Consumer Protection.
[41] Alliance for Financial Inclusion. (2023). 2023 Maya Declaration Progress Report: Progress for shared prosperity.
[42] GSMA Mobile Money analysis.
[43] African Union. (2023). "List of countries which have signed, ratified/acceded to the African Union Convention on cyber security and personal data protection".
[44] UNCTAD. (14 December 2021). "Data Protection and Privacy Legislation Worldwide".
[45] The Gazette of India. (11 August 2023). The Digital Personal Data Protection Act, 2023.

Future trends: the impact of digital public infrastructure

While these policy issues may evolve, digital public infrastructure (DPI) is likely to become more central to mobile money policy trends in the future.

DPI comprises the digital platforms that allow countries to provide essential services to citizens. This includes digital identification, payment infrastructure and data exchange solutions.

DPI can improve lives by increasing digital inclusion and facilitating secure data exchange.

The UN High Impact Initiative on DPI[46] promotes its development and implementation in 100 countries by 2030, ensuring that DPI is safe, accessible, affordable, green, financed and future ready. Some countries, such as Ethiopia, Senegal and Togo, are piloting or have already piloted DPI technologies, such as the Modular Open-Source Identity Platform (MOSIP) – an open-source and customisable system that enables interoperability. DPI is expected to become more widespread in the future, as it could improve the efficiency of, and collaboration between, several sectors.

In Togo, Novissi, a DPI-based solution launched by the Togolese government, delivered emergency digital cash transfers using mobile money during the COVID-19 pandemic.[47] In its first year, the platform disbursed $24 million to 800,000 beneficiaries. Novissi was a one-time solution and is expected to become a DPI when it becomes operable for longer periods. The platform increased access to economic resources for vulnerable individuals in Togo who only required a SIM to receive money.

Encouragingly, around

63%

of beneficiaries were women, who received more money than men.

[46] UN. (2023). SDG Summit 2023 – Digital Public Infrastructure.
[47] UNDP. (2023). Accelerating The SDGs Through Digital Public Infrastructure: A Compendium of The Potential of Digital Public Infrastructure.

Image credit: Freepik.com

05

The mobile money gender gap in 2023

 Image credit: Freepik.com

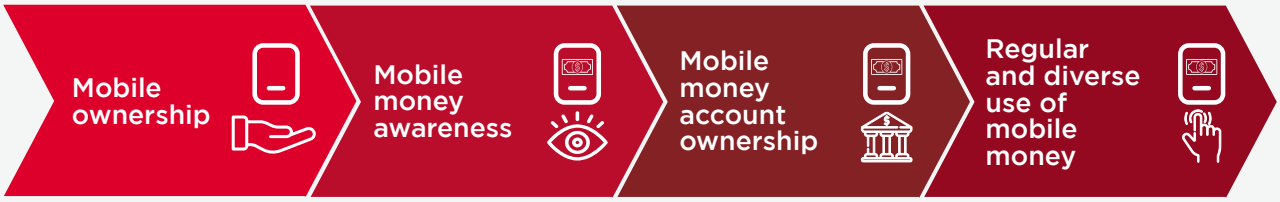
While the number of registered mobile money accounts now stands at 1.75 billion, a substantial gender gap remains. There are many reasons behind this gap, from not owning a phone, not being aware of mobile money, not perceiving the relevance of mobile money to lacking the knowledge and skills to use mobile money. All these barriers tend to be exacerbated by underlying social norms.

Ensuring that women are financially included can help them and their households perform transactions conveniently and safely, manage their finance and micro-enterprises, achieve socio-economic progress and become more resilient. For example, mobile money can be used by women and their families to receive social and humanitarian cash transfers, build economic identities and adapt to climate change. In addition, closing the gender gap in women's financial inclusion provides a substantial commercial opportunity for mobile money providers.

The GSMA runs an annual face-to-face consumer survey in several LMICs to track progress in closing the mobile money gender gap. In 2023, these included Bangladesh, India, Indonesia, Kenya, Nigeria, Pakistan and Senegal. The survey collects gender-disaggregated, demand-side data on mobile money.

To improve women's use of mobile money, it is necessary to overcome barriers at each stage of the mobile money user journey (*Figure 34*). This includes four steps: mobile ownership, awareness of mobile money, account ownership, and regular and diverse use of mobile money.

Figure 34: **Mobile money user journey**

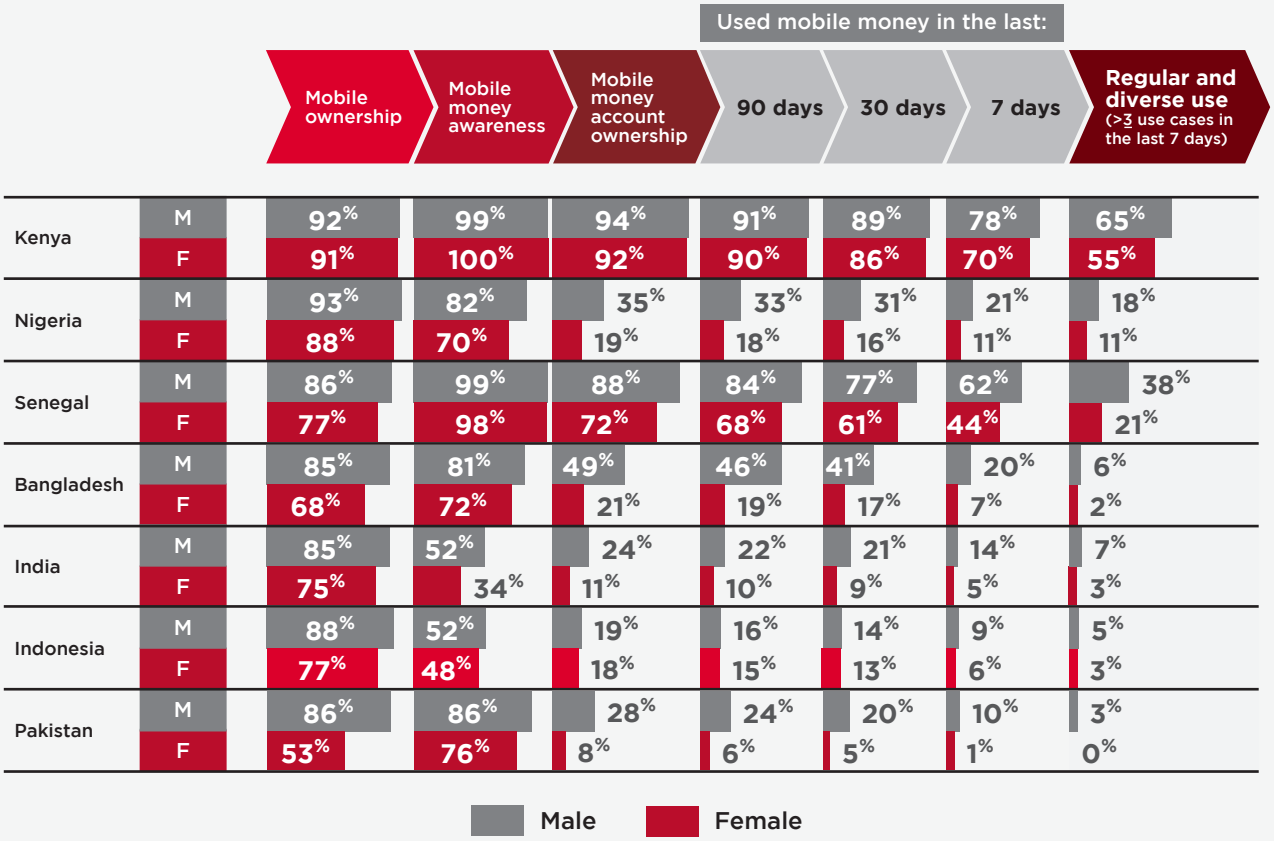


Source: GSMA

Across the survey countries, there are significant differences by market as well as by gender at each stage of the mobile money user journey (*Figure 35*). The key trends observed in these countries can be summarised as follows:

- **A gender gap in mobile ownership exists in all survey countries, except Kenya.** It is particularly high in Pakistan, where only about half of women own a mobile phone, compared to 86% of men. Compared to 2022, women's mobile ownership levels either stagnated or progressed slowly.
- **Women and men's awareness of mobile money has increased in Nigeria, Bangladesh and India, compared to 2022.** However, women in these countries and in Pakistan are still less likely than men to be aware of mobile money.
- Growth in awareness does not always translate into growth in account ownership, such as in Bangladesh, where account ownership among women stagnated. **Considerable gender gaps in mobile money account ownership remain in all survey countries except Kenya.**
- **Once women own a mobile money account, they are nearly as likely as men to have used it in the past 30 days**, except in Bangladesh and Pakistan where women's use is substantially lower. However, in Kenya, Senegal and Indonesia, the gender gap widens when focusing on those who have used at least three mobile money use cases in the last seven days.

Figure 35: **Proportion of men and women at each stage of the mobile money user journey in 2023, by country[48] (percentage of the total adult population)**



Source: 2023 GSMA Consumer Survey

Mobile ownership

Owning a mobile phone is a prerequisite for mobile money use, but there is a persistent gender gap in mobile ownership across LMICs. Overall, women are 7% less likely than men to own a phone, though ownership varies by country. In 2023, women's rate of mobile phone ownership either stagnated or progressed marginally compared to 2022. For example, only about half of all women in Pakistan (53%) own a mobile phone, exactly as in 2022 (53%), while men's ownership increased slightly from 81% in 2022 to 86% in 2023. The gender gap in phone ownership has therefore slightly widened.

[48] GSMA Consumer Survey 2023. "Mobile phone owner" is defined as a person who has sole or main use of a SIM card or mobile phone that does not require a SIM and uses it at least once a month. Base: All adults. n=497–1,024 for women and 491–1,181 for men. Question: Which, if any, [national] mobile money brands are you aware of? Base: All adults. n=497–1,024 for women and 491–1,181 for men. Question: And which, if any, do you have a mobile money account with? Base: All adults aware of at least one [national] mobile money brand and have used a mobile phone. n=245–539 for women and 268–621 for men. Question: Have you ever used a mobile money account to send, pay or receive money, or to deposit or withdraw money? Mobile money account owners were asked how often they use their accounts. Base: All adults who have a mobile money account. n=41–501 for women and 98–474 for men. Sample: nationally representative. Question: Which, if any, of the following have you ever used mobile money for? Mobile money users were asked how often they use each use case. Base: All those who have a mobile money account or have used shop/agent (OTC) services, n=52–497 for women and 103–473 for men. Sample: nationally representative. Notes: For questions on mobile money account ownership and usage, the results are rebased to be shown as a proportion of the total adult population in each country.

Mobile money awareness

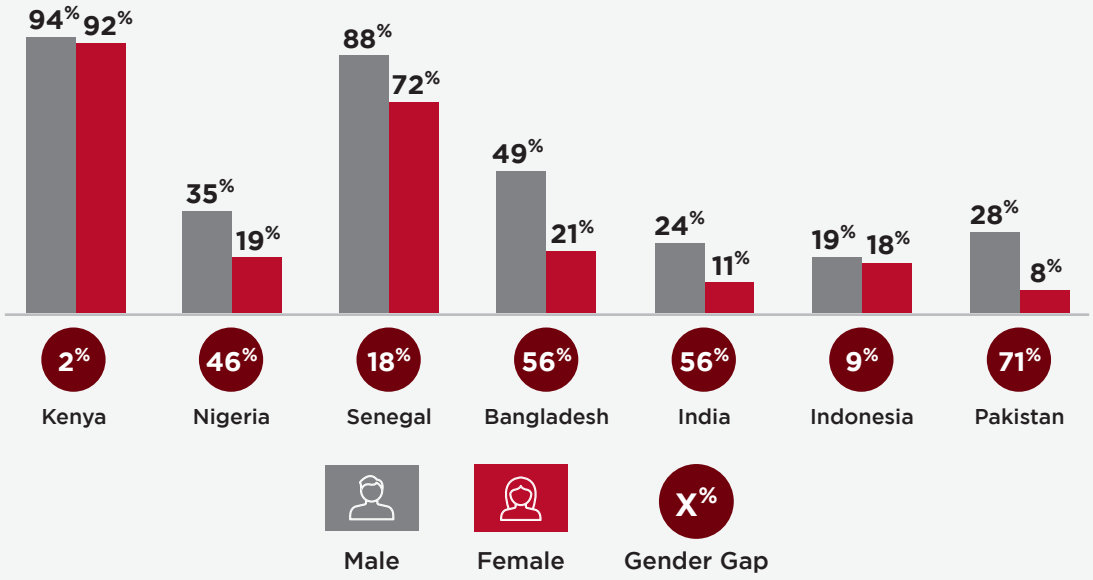
Awareness of at least one mobile money service is a key step in becoming a user. However, women remain less likely than men to be aware of a mobile money service in all countries except Kenya and Indonesia. Awareness of mobile money improved for both women and men in 2023 in Bangladesh, India and Nigeria, albeit at variable levels:

- In Bangladesh, women's awareness of mobile money grew from 61% in 2022 to 72% in 2023; for men, awareness grew from 74% to 81% for men over the same period.
- In Nigeria, women's awareness levels grew from 57% in 2022 to 70% in 2023, compared to a 14-percentage point rise to 82% for men.
- In India, men's awareness grew from 41% in 2022 to 52% in 2023, while it reached about a third of the country's female population (34%) – the lowest across survey countries – compared to 27% in 2022.

Mobile money account ownership

Survey results show that women are still less likely than men to own a mobile money account in all survey countries except Kenya, where mobile money adoption is near-universal (*Figure 36*). While there is near gender parity for account ownership in Indonesia, adoption remains below 20%. The gender gap is especially wide in Pakistan (71%), India (56%), Bangladesh (56%) and Nigeria (46%). In Bangladesh, women's account ownership stagnated at 21%, showing that the growth observed in women's mobile money awareness did not translate into increased adoption. In Senegal, mobile money adoption is near-universal for men, but close to 30% of women still do not have an account. No progress towards women's mobile money account ownership was observed this year compared to 2022.

Figure 36: **Male and female mobile money account ownership in 2023, by country[49] (percentage of the total adult population)**



Source: 2023 GSMA Consumer Survey

[49] Source: GSMA Consumer Survey 2023. Question: And which, if any, [national mobile money service] do you have a mobile money account with? Base: All adults aware of at least one mobile money brand and have used a mobile phone. n=245–539 for women and 268–621 for men. Sample: nationally representative. Note: The results are rebased to be shown as a proportion of the total adult population in each country. See appendices for gap calculation methodology.

On the other hand, significant improvement was recorded in a few countries that had an acutely high gender gap in 2022. For example, the gender gap substantially reduced in Pakistan, decreasing from 85% in 2022 to 71% in 2023, and from 75% to 56% in India. Mobile money adoption grew significantly in Nigeria, though at a similar rate for men and women.

Around

19%

of women now own a mobile money account, **up from 9% in 2022.**

Despite these positive trends, gaps remain substantial.

Some of this progress can be attributed to the efforts of several stakeholders. In recent years, mobile money providers, government entities and other stakeholders have encouraged the adoption and use of mobile money among women, either directly or indirectly. In Pakistan, for instance, JazzCash launched initiatives and products aimed at increasing the number of female customers as part of their GSMA Connected Women Commitment. These include rural digital skills campaigns with a strong gender focus to improve women's awareness and understanding of mobile money, and tackle societal norms that constrain women's adoption of digital financial services.

In India, Airtel Payments Bank partnered with Frontier Markets and Mastercard in 2023 to support 100,000 women-owned small businesses with resources, tools and opportunities to grow and diversify their incomes[50]. The country's rapidly growing uptake of the United Payments Interface (UPI)[51] has also been a key driver of women's adoption of digital payments. Most recently, its new 123Pay solution for feature phones allows women without smartphones to use digital financial services[52].

Mobile money use

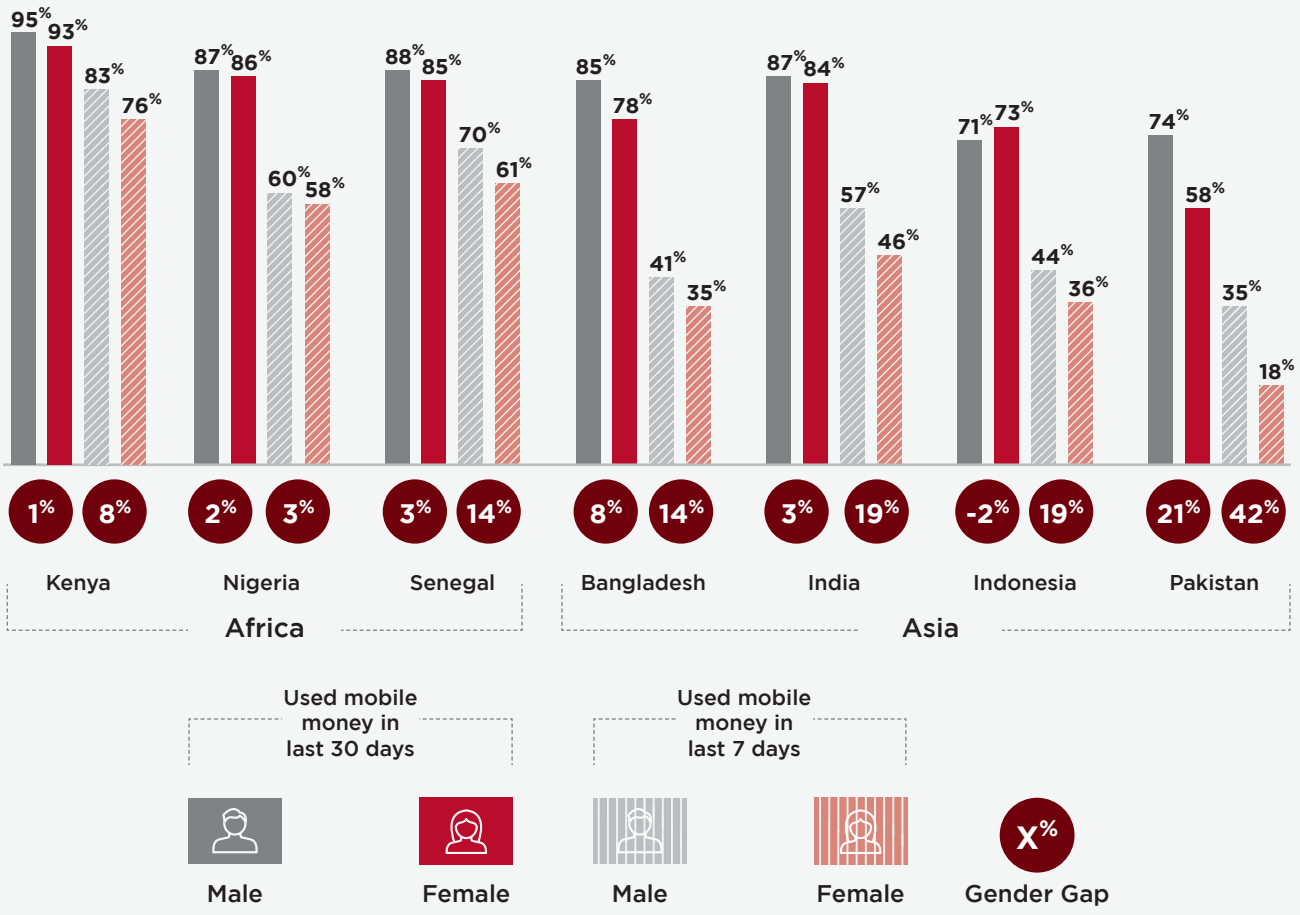
Women's financial inclusion does not end with account ownership. The actual use of an account, including how frequently and for what purpose, is key in enabling women to reap the full benefits of mobile money to the same extent as men. MMPs need to ensure that their products can meet both male and female customers' needs and preferences, through user-centric design that caters to the widest possible audience, and services dedicated to the specific needs of female customers.

Once they own a mobile money account, women's likelihood of having used it in the last 30 days is almost identical to men's in India, Indonesia, Kenya, Nigeria and Senegal *(Figure 37)*. However, a 30-day activity gender gap remains in Bangladesh and in Pakistan. When focusing on seven-day activity among account owners, the gender gap widens.

This is observed in all countries except Nigeria. For example, Senegal has a small gender gap of 3% in 30-day activity, but a 14% gap in seven-day activity. Even in Kenya, where mobile money adoption is high for both men and women, the latter are 8% less likely than men to have used their account in the last seven days.

[50] Mastercard. (2023). Airtel Payments Bank, Frontier Markets and Mastercard partner to support 100,000 women-owned small businesses in India.
[51] According to the National Payments Corporation of India, the "Unified Payments Interface (UPI) is a system that powers multiple bank accounts into a single mobile application (of any participating bank), merging several banking features, seamless fund routing & merchant payments into one hood. It also caters to the "Peer to Peer" collect request which can be scheduled and paid as per requirement and convenience."
[52] National Payments Corporation of India. UPI 123Pay.

Figure 37: **Male and female mobile money account owners who have used mobile money in the last 30 days and the last 7 days, by country**[53]



Source: 2023 GSMA Consumer Survey

Beyond frequency, how account owners use mobile money is important to take into account. Here, an even wider gender gap emerges. In all surveyed countries, women account owners are less likely than men to have performed three or more different types of transactions over the past seven days. This is the case in mature mobile money markets too: women are 15% less likely than men to have done so in Kenya, 39% in Senegal and 29% in Indonesia. Diverse mobile money use beyond P2P and CICO transactions have the potential to strengthen women's socio-economic empowerment. For instance:

- Women in LMICs are more likely to experience the adverse impacts of climate change due to gender inequalities that can limit their access to resources, education and decision-making power. Women are influential stakeholders in implementing low-carbon pathways as farmers, entrepreneurs, producers, consumers and household managers. Enabling them to access climate finance via mobile money payments can help them and their households to better adapt to climate change, and adopt greener technologies[54,55].

[53] Source: GSMA Consumer Survey 2023. Question: Have you ever used a mobile money account to send, pay or receive money, or to deposit or withdraw money? Mobile money account owners were asked how often they use their accounts. Base: All respondents who have a mobile money account, n=41–501 for women and 98–474 for men. Sample: nationally representative.

[54] Mulwa, J. (2023). Digitally Enabled Climate Finance. *GSMA.*

[55] Schalatek, L. (February 2022). "Gender and Climate Finance". Climate Funds Update. Heinrich Böll Stiftung.

- In agriculture, digital transaction data can be used to create economic identities for farmers and improve access to financial services. Economic identities are even more important for women farmers, who are less likely to have formal identification or assets for collateral.
- Cash transfers are powerful tools to tackle gender inequalities, empower women and girls and facilitate their digital, financial and economic inclusion and participation. Mobile money-enabled cash transfer programmes, which are more likely to be sensitive to household dynamics and gender-transformative, can also reduce risks of intimate partner violence[56].

Similar to last year, women are generally less likely to use ecosystem transactions (e.g., receiving salaries or government-to-person (G2P) payments) and adjacent services (e.g., loans, saving or paying for an insurance premium).

For example, only 1% of women who use mobile money in Bangladesh are likely to have paid for an insurance product, vs. 8% of men. Even in Kenya, only 4% of women claimed to have received any payment from a government, local authority or charity via mobile money, whereas 10% of men reported so. Considerable gaps can also be observed for some types of core mobile money activities. For example, in all survey countries, women mobile money users are less likely than men to send funds through a mobile money account (P2P) or use it to top-up airtime. (*Figure 38*).

[56] [1] Dhawan, S. M., El-Zoghbi, M. (2023) Sending Cash Transfers to Women: How to Design Programs that Enhance Well-Being While Safeguarding Against Intimate Partner Violence. CFI & WFP.

Figure 38: **Men and women who have performed each use case in the last 30 days, by country[57] (percentage of adult mobile money users in 2023)**

	Africa						Asia							
	Kenya		Nigeria		Senegal		Bangladesh		India		Indonesia		Pakistan	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Cash-in	75%	61%	50%	43%	51%	38%	21%	13%	26%	25%	33%	34%	17%	4%
Cash-out	77%	75%	56%	53%	60%	51%	28%	20%	30%	21%	36%	32%	18%	6%
Send money within this country (P2P)	77%	68%	48%	39%	67%	45%	48%	32%	16%	11%	38%	30%	29%	20%
Receive money within this country (P2P)	79%	76%	44%	32%	74%	65%	43%	36%	31%	28%	34%	32%	26%	25%
Top-up airtime	85%	76%	53%	35%	55%	33%	19%	7%	41%	26%	57%	52%	18%	12%
Receive payments from government, local authority or charity (bulk disembursement)	10%	4%	7%	4%	4%	4%	10%	5%	12%	11%	6%	3%	5%	4%
Receive my salary or wages (bulk disembursement)	27%	13%	15%	8%	12%	6%	9%	2%	15%	12%	11%	11%	8%	0%
Get paid by a customer or client (merchant payment)	42%	35%	34%	21%	25%	18%	9%	6%	21%	18%	10%	11%	14%	4%
Pay for services (merchant payment)	54%	38%	19%	9%	17%	10%	10%	3%	12%	9%	13%	14%	5%	4%
Pay in a physical shop or in person (merchant payment)	66%	56%	29%	21%	21%	12%	9%	6%	37%	36%	32%	37%	8%	0%
Pay online (via a website or app) (merchant payment)	16%	13%	18%	10%	10%	7%	7%	3%	31%	29%	32%	43%	7%	2%
Pay for bills (bill payments)	59%	45%	21%	21%	36%	19%	17%	7%	28%	23%	29%	30%	23%	11%
Send money to a different country (international remittance)	9%	3%	7%	3%	11%	7%	16%	9%	6%	5%	3%	3%	8%	2%
Receive money from a different country (international remittance)	9%	6%	10%	5%	20%	15%	19%	12%	11%	17%	2%	3%	8%	6%
Get a loan (credit)	30%	23%	3%	1%	10%	5%	9%	5%	11%	13%	2%	4%	4%	0%
Send money to a **savings** account	37%	26%	56%	48%	6%	2%	9%	6%	23%	16%	35%	34%	6%	2%
Pay for an **insurance** product	14%	8%	5%	3%	3%	3%	8%	1%	5%	2%	5%	8%	5%	2%

M Male F Female

Most reported use case across countries — Least reported use case across countries

Source: 2023 GSMA Consumer Survey

[57] Source: GSMA Consumer Survey 2023. Question: Which, if any, of the following have you ever used mobile money for? Mobile money users were asked how often they use each use case. Base: All those who have a mobile money account or have used shop/agent (OTC) services, n=52–497 for women and 103–473 for men. Sample: nationally representative.

Barriers to mobile money account ownership

The GSMA Consumer Survey asks mobile owners who are aware of mobile money, but do not have a mobile money account, about their reasons for not owning an account (*Figure 39*). The most frequently reported barriers by both men and women across the surveyed countries are the perceived relevance (specifically a preference for cash) and a lack of knowledge and skills. However, there are notable differences between male and female respondents' perception of some of the barriers in specific countries. For example, among those aware of mobile money but who do not own an account, the lack of necessary documentation is more likely to be a challenge for women than men in Nigeria (14% vs. 6%) and Pakistan (15% vs. 9%). Some knowledge and skill-related barriers tend to affect women to a greater extent than men. In Indonesia and Nigeria, more women than men quote not knowing how to use mobile money as a reason for not owning an account (45% vs. 37% in Indonesia, and 28% vs. 21% in Nigeria). In Pakistan, women are much more likely than men to report family disapproval as a barrier (33% vs. 8%).

Figure 39: **Barriers preventing men and women mobile owners from having a mobile money account in 2023, by country**[58]

		Africa		Asia							
		Nigeria		Bangladesh		India		Indonesia		Pakistan	
		M	F	M	F	M	F	M	F	M	F
Relevance	Preferance for cash	61%	60%	53%	36%	53%	45%	61%	63%	71%	73%
	Alternatives to tranfer money	38%	34%	17%	16%	37%	36%	41%	44%	33%	27%
	Friend/Family has MM account I can use	18%	23%	21%	27%	26%	26%	21%	21%	30%	32%
	Use OTC	38%	34%	35%	27%	31%	22%	19%	24%	41%	26%
	Lack of money	19%	24%	8%	13%	36%	37%	41%	38%	52%	53%
Knowledge/ skills	Don't know how to use MM	21%	28%	27%	31%	42%	36%	37%	45%	45%	45%
	Difficulties using a handset/might make errors	20%	22%	20%	25%	44%	43%	28%	36%	34%	37%
	Literacy	25%	32%	30%	17%	28%	21%	8%	4%	45%	38%
Affordability	Cost-effectiveness	6%	10%	15%	15%	34%	29%	32%	30%	31%	26%
Access/ enablers	Unreliable network	8%	6%	10%	12%	25%	26%	16%	17%	14%	20%
	Lack of access to agents	5%	6%	11%	8%	29%	22%	32%	33%	11%	14%
	Lack of access to electricity	4%	6%	7%	6%	22%	16%	10%	9%	9%	12%
	Lack of necessary documentation	6%	14%	10%	13%	25%	25%	21%	18%	9%	15%
Safety/ security	Safety and trust	34%	25%	17%	22%	40%	40%	38%	42%	25%	26%
	Don't trust agents	20%	19%	11%	14%	32%	24%	20%	24%	15%	17%
Other	MM agents don't have cash	6%	4%	10%	7%	26%	25%	18%	19%	13%	16%
	Family does not approve	4%	5%	9%	18%	28%	25%	16%	29%	8%	33%
	Other	10%	4%	8%	8%	25%	17%	10%	7%	10%	8%

M Male F Female — Lowest barrier cited across countries … Highest barrier cited across countries

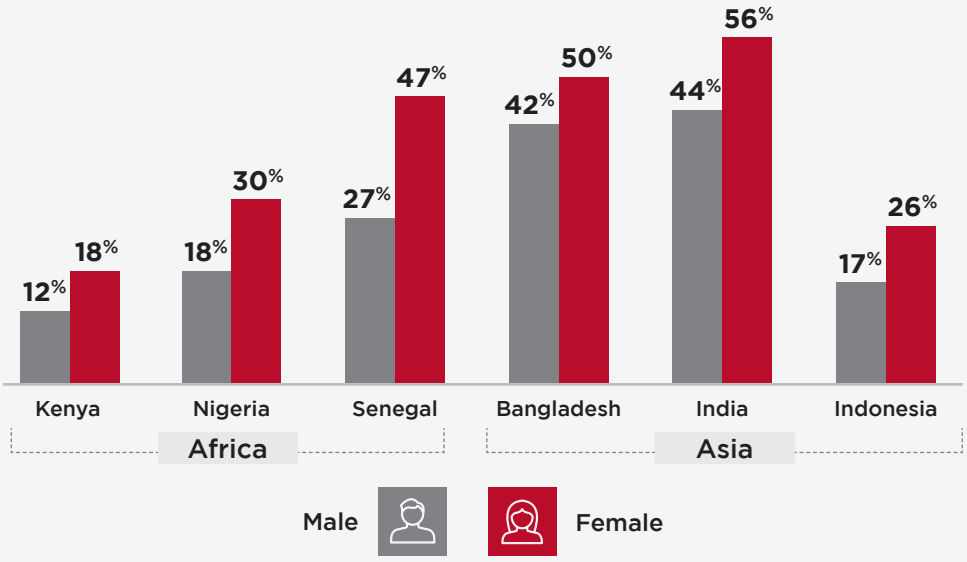
Source: 2023 GSMA Consumer Survey

Barriers to regular and diverse use

When mobile money users were asked how confident they felt using mobile money, fewer women than men claimed to be "very confident" in four out of six markets[59]. This was even the case in Kenya, a mature market, where only 62% of female mobile money users feel very confident in using mobile money – as opposed to 72% of men. This is also the case in Senegal (37% vs. 48%), Bangladesh (12% vs. 25%) and Indonesia (54% vs. 65%). A gender difference was also noted in some markets where mobile money users were asked whether they needed help to handle their transactions (*Figure 40*).

Throughout survey countries, women are more likely than men to need help in using their accounts. In Senegal, close to half of all female mobile money users said they required some type of assistance when performing a transaction, such as help from a family member (27%) or a mobile money agent (18%). Sizeable differences were observed in India, Kenya and Nigeria. In all survey countries, women are more likely than men to report receiving help from a family member – more so than any other type of individual (agent, friend, a person of standing in the community or anyone else).

Figure 40: **Men and women who reported needing help when using their mobile money account, by country[60] (percentage of adult mobile money users in 2023)**



Source: 2023 GSMA Consumer Survey

This is substantiated by responses collected when mobile money users were asked how they first learned how to use mobile money. Compared to men, women are most likely to have taught themselves how to use mobile money in three out of six markets[61]. However, in Bangladesh, India and Nigeria, they are most likely to have been first taught by friends or family. Importantly, women are much more likely than men to have been taught by friends or family in all markets, except Nigeria. Based on this trend, MMPs are encouraged to consider incentivising existing customers to onboard and support women in their community to adopt and use mobile money.

[58] Source: GSMA Consumer Survey 2023. Question: You said that you are aware of at least one of the [national] mobile money services but that you don't have a mobile money account. For each of the possible reasons that I read out, please indicate whether this is something that stops you at all from having a mobile money account. Percentages represent the proportion of respondents who answered yes. Base: All adult mobile owners who are aware of at least one [national] mobile money service but who do not have a mobile money account. n=146–222 for women and 117–255 for men. Note: Kenya and Senegal were excluded due to small sample sizes caused by very high levels of account ownership.

[59] Pakistan excluded due to a low base of female mobile money users.

[60] Source: GSMA Consumer Survey 2023. Question: When using your mobile money account, does anyone help you handle your mobile money transactions or not? Percentages represent the proportion of respondents who answered yes. Base: All adults who ever used a mobile money account. n=84–497 for women and 84–470 for men. Note: Pakistan was excluded due to a small sample size caused by low levels of mobile money use among women.

[61] Pakistan excluded due to a low base of female mobile money users.

Conclusion

While some gains in women's mobile money adoption were made in 2023, gender gaps remain in all focus countries of the GSMA Consumer Survey except Kenya. This is due to barriers such as low mobile ownership, a lack of perceived relevance, digital skills, social norms or low levels of trust. Beyond not having an account, women are also less likely than men to use their account regularly. Women who do use their mobile money accounts regularly tend to do so for a narrower range of use cases. These gaps and obstacles prevent women from reaping the full benefits of mobile money use, in the process hindering a catalyst to social and economic advancement for them, their households and their businesses, and a commercial opportunity for MMPs. This underlines the need for MMPs, governments and other relevant stakeholders to make mobile money compelling to the widest possible audience, with a value proposition that can improve the day-to-day lives and financial health of all consumers in LMICs.

BOX 6: Women micro-entrepreneurs' use of mobile money

Mobile money allows women micro-entrepreneurs to work more efficiently and flexibly around other commitments, manage their finances securely, and improve business profits. However, recent GSMA research in 10 LMICs found that women micro-entrepreneurs are less likely than men to be aware of mobile money, to have an account or to use it for their business[62]. Promisingly, once micro-entrepreneurs start using mobile money, most use it weekly. Despite this, gender gaps exist and women micro-entrepreneurs report using it less frequently than their male counterparts – even in more mature mobile money markets.

Other payment methods – such as cash – still dominate most micro-entrepreneurs' financial transactions, especially women. Increasing mobile money adoption among women micro-entrepreneurs will require tackling the multiple barriers they face, including limited awareness of the different business use cases mobile money offers, and a lack of perceived relevance, digital skills and handsets.

[62] Carboni, I. and Taghiyeva, A. (September 2023). "Understanding women micro-entrepreneurs' use of mobile phones for business". *GSMA.*

06

Mobile money and the Sustainable Development Goals

Mobile money has been a key enabler of economic growth and a major contributor to the 17 United Nations Sustainable Development Goals (SDGs). In 2019, the mobile money industry was thought to be contributing to at least 13 SDGs. By 2023, this had risen to 15 goals. Mobile money now contributes to SDG 11 – Sustainable cities and communities and to SDG 12 – Responsible consumption and production. By improving access to digital payments and financial inclusion, mobile money remains a leading force in achieving the SDGs.[63]

SDG	Mobile money's contribution	Recent examples of how mobile money contributes to the SDG
1. No Poverty	Mobile money can help households lift themselves out of poverty and become more resilient to financial shocks.	Some humanitarian organisations have used mobile money to distribute cash transfers to displaced persons. For example, in South Sudan, using mobile money has been more effective and cost-efficient than cash, as moving large amounts of cash through high-risk areas often requires security services. This can add 30% to the transfer value. Mobile money can improve payment confidentiality too, ensuring the safety of beneficiaries.[64]
2. Zero Hunger	Mobile money can make agricultural value chains more efficient and help agricultural producers access financial services, increasing food security in the process.	Vodafone Tanzania developed the M-Kulima app, which offers several services to smallholder farmers: agronomic advisory from crop buyers, payments via M-PESA for their crop and adjacent services via partnerships. These include an overdraft facility, digital advisory, weather index insurance and access to markets, equipment and inputs.[65]
3. Good Health and Well-being	Mobile money can improve access to funds at crucial times, either by increasing formal savings or enabling transfers from remote friends and family when funds are needed for urgent care.	MTN Momo launched MoPesa in Uganda, a financial product that comprises a savings account and instant loan facility. Customers can choose either a regular savings account or fixed deposit account. Loan decisions are made quickly and communicated to users via their mobile phones. Repayments can be made in part or in full.[66]
4. Quality Education	Using mobile money can make education expenses more manageable for lower income households and help schools and national education systems manage their finances more effectively.	MTN MoMo customers in Uganda can pay for children's school fees for more than 5,000 schools and institutions across the country. These include nurseries or kindergartens, primary schools, secondary schools, universities and other tertiary institutions.[67]
5. Gender Equality	Mobile money can lead to greater economic empowerment for women by helping women access financial services, including credit to start and grow a business.	In Mozambique, Vodacom M-PESA launched their Xitique savings product a few years ago. Currently, more female mobile money users than men save money through the product. As a result, the M-PESA team in Mozambique launched a series of engagements in Maputo to boost women's understanding and skills. This led to a further increase in mobile money use among women.[68]
6. Clean Water and Sanitation	Mobile money has played a key role in opening access to affordable and reliable water and sanitation services and increasing the efficiency and reach of water and sanitation connections.	Several start-ups and established utility providers in Asia and Sub-Saharan Africa have integrated with mobile money platforms. By switching to digital payments, water and sanitation providers can reduce cash collection costs by 57% to 95%. Such savings could allow providers to extend their services to low-income populations.[69]
7. Affordable and Clean Energy	As with clean water and sanitation, mobile money has been pivotal in improving access to clean and affordable energy and productive energy-powered assets for low-income populations.	Pay-as-you-go (PAYG) solar is a dominant mobile money-enabled service. Between 2010 and 2021, around 270 million solar energy kits were sold, providing energy access to more than 490 million people.[70]

[63] GSMA. (2019). Harnessing the Power of Mobile Money to Achieve the Sustainable Development Goals.
[64] Storchi, G. (20 January 2023). "South Sudan: Mobile money's role in the road to recovery". *GSMA Mobile for Development Blog.*
[65] GSMA. (2023). The State of the Industry Report on Mobile Money 2023.
[66] Kikonyogo, D.A. (29 November 2023). "What is MTN MoPesa and How Does It Work?" *Techjaja.*
[67] MTN. (3 September 2022). "Save Time and Money by Paying school Fees the Easy Way with MTN MoMo".
[68] Lowe, C. (22 August 2023). "Mobile money, evolving fintech: In conversation with M-Pesa". *GSMA Mobile for Development Blog.*
[69] Joiner, J. (12 May 2021). "Growing adoption of mobile money in the water and sanitation sectors". *GSMA Mobile for Development Blog.*
[70] GSMA. (2023). The State of the Industry Report on Mobile Money 2023.

SDG	Mobile money's contribution	Recent examples of how mobile money contributes to the SDG
8. Decent Work and Economic Growth	Mobile money can catalyse local business and social enterprise by enabling greater productivity, creating employment and stimulating economic growth.	In Nigeria, new licences issued over the past three years have seen many new mobile money players emerge, resulting in a 41% increase in the number of registered agents by 2022. This has created employment for millions of new agents, making mobile money accessible to more people in Africa's largest economy.[71]
9. Industry, Innovation, and Infrastructure	Access to mobile money and microfinance can help MSMEs formalise their operations and access the credit they need to expand.	With support from IFC, Orange Bank Africa aims to offer digital loans to MSMEs in West Africa. The lending product will be launched first in Côte d'Ivoire, followed by Senegal and other West African markets.[72]
10. Reduced Inequality	Mobile money can help migrants and their families send and receive international remittances, enable the delivery of humanitarian assistance and improve access to financial services for persons with disabilities.	Mobile money is leading the way to achieve the SDG 10c. target of 3% for remittance transaction costs. The World Bank Remittance Prices Worldwide database showed that the global average cost of sending $200 via mobile money was 3.73%, nearly half the global average.[73]
11. Sustainable Cities and Communities	Mobile money can facilitate access to affordable housing and transport services.	Tigo Pesa's Lipa Kwa Simu service, a revamped merchant payment solution for users and merchants, allows customers to make micropayments. Tigo Pesa launched a partnership with Uber in 2023, allowing customers to pay for their rides using Tigo Pesa.[74]
12. Responsible Consumption and Production	Mobile money can drive innovation in the food marketplace to reduce food losses along production and supply chains.	Twiga Foods is a mobile-based, business-to-business supply platform that connects smallholder farmers to MSMEs. In addition to using mobile money to collect fees from vendors and pay farmers, Twiga Foods also offers short-term loans via mobile money to help some vendors finance their stock.[75]
13. Climate Action	Mobile money can help farmers become climate resilient and help communities that have been displaced by climate change.	OKO uses satellite data to provide weather index insurance to smallholder farmers in Mali and Uganda. The service is embedded in Orange Money's platform in Mali, with premiums and claims paid via mobile money.[76]
14. Peace, Justice, and Strong Institutions	The GSMA's Code of Conduct for Mobile Money Providers identifies principles aimed at promoting the adoption of consistent risk mitigation practices in different areas, including anti-money laundering/combating financing of terrorism (AML/CFT).	Hormuud Telecom, the largest MMP in Somalia, received their GSMA Mobile Money Certification in 2022. The process enabled Hormuud Telecom to improve their risk management system, strengthen user trust and enhance consumer protection policies. As a result, the company saw a 15% increase in the identification of AML/CFT and fraud, improved customer care, a 20% increase in customer satisfaction and significant improvements in penetration testing.[77]
15. Partnerships for the Goals	Mobile money can improve governments' capacity to collect revenue and enable commercially sustainable and socially impactful partnerships.	Several governments are digitalising their services for citizens. For example, the Government of Ghana launched Ghana.GOV as the main digital government and revenue collection platform, which aims to offer the public a single point of access to e-government services. Users can pay digitally, including via mobile money, for a range of government services.

[71] Ibid.
[72] IFC. (3 July 2023). "IFC Partners with Orange Bank Africa to Increase Digital Lending for Small Businesses in West Africa".
[73] GSMA. (2023). The State of the Industry Report on Mobile Money 2023.
[74] Lowe, C. (31 July 2023). "Mobile money in Tanzania: Unveiling the vision of Tigo Pesa". GSMA Mobile for Development Blog.
[75] Raithatha, R. (2019). Improving financial inclusion through data for smallholder farmers in Kenya. *GSMA.*
[76] Ben-Hutta, G. (22 April 2021). "OKO raises $1.2 million". *Coverager.*
[77] GSMA. (2023). The State of the Industry Report on Mobile Money 2023.

The socio-economic impact of mobile money is not limited to progress on the SDGs; it is also felt by millions of people in their daily lives. By accessing financial services, many users are now able to access productive services that were previously inaccessible. For instance, mobile money has improved the lives of smallholder farmers by enabling them to invest in their operations by purchasing agricultural inputs. They will likely continue to reap the benefits. For rural communities managing natural ecosystems, mobile money offers a convenient, effective and safe payment channel.

Beyond improving lives and livelihoods, mobile money can have a positive impact on organisations that offer it as a payment channel. For example, productive credit disbursed through mobile money, such as for PAYG models, can help people with short- or medium-term financing needs or to pay for goods in instalments. Such records can be used by companies to access additional trade or asset financing. In addition, governments offering their services digitally are likely to prefer digital payments. Mobile money is a key payment channel for government services in several countries, with Ghana among the latest to use it for a new government service platform.

The following use cases demonstrate how mobile money use can be diversified while preserving its socio-economic impact.

Digital agriculture: enabling farmer access to financial services

SDG 2: Zero Hunger

Papua New Guinea has one of the lowest financial inclusion rates in the world: less than 40% of adults have an account at a formal institution.[78] In rural areas, where most of the population lives and livelihoods depend primarily on agriculture, financial inclusion rates are even lower.[79] To access essential financial services like credit, farmers face major barriers, including long travel distances to FSPs and a lack of traditional collateral.

Digitalising agricultural value chains using digital procurement solutions can spur a transition from paper to digital records. This can capture a wealth of farm and farmer data, including transaction records from crop sales, which can be used to create economic identities for farmers. When shared with FSPs, this data can be used for credit risk assessments and to design loan products that are both affordable for farmers and commercially viable for FSPs.

With support from Australia's Department of Foreign Affairs and Trade (DFAT), the GSMA AgriTech programme created a consortium of partners in 2020 to improve access to credit for vanilla farmers in Papua New Guinea. The consortium comprised MiBank, the largest MFI in the country, and Kamapim, a vanilla-buying agribusiness. The venture launched Rural Loan, a loan product that uses data from digital procurement tools to offer credit to farmers.

Rural Loan

Rural Loan was launched in September 2021 in five districts of the Madang province of Papua New Guinea. The loan was designed to expand and improve vanilla cultivation. Pegged to vanilla vine counts, loan tiers range from PGK 300 ($83) to 1,000 ($277). The consortium created a credit scorecard to predict repayment behaviour, using farmer data collected through Kamapim's digital procurement application. Once a farmer's credit application is approved, the loan is paid into their MiBank account. To access the funds, farmers had to visit the nearest MiBank agent or branch. Farmers could repay the loan either at a MiBank branch,

[78] Centre for Excellence in Financial Inclusion (CEFI). (2023). National Financial Inclusion Strategy 2023–2027 and FI Data (Quarterly Reports) 2023.
[79] International Monetary Fund (IMF). (2015). Papua New Guinea: Selected Issues. IMF Country Report No. 15/319.

through a Kamapim field agent or via mobile money. After 14 months, 12,000 farmers had obtained economic identities by digitising their data via Kamapim's platform and 355 loans were issued. For nearly all farmer borrowers (99%), Rural Loan facilitated first-time financial inclusion by providing access to bank accounts and formal credit.[80] Farmers used the funds to buy farming tools, hire labour or start complementary revenue-generating activities. Farmers also displayed an appetite for larger loan amounts, highlighting the product's potential to expand access to credit.

The opportunity for mobile money

Although farmers were offered the option to repay their loans using mobile money, only a handful used this method. This might have been because of limited network coverage, the scarcity of agent networks in rural areas or limited trust of mobile money in the most remote parts of the country. However, mobile money services, led by Digicel's Cellmoni, are becoming popular in Papua New Guinea, with the user base doubling between 2017 and 2021.[81]

As DFS penetrate rural areas and become popular among farmers, they can drive adoption of digital agricultural services. In addition to improving business efficiencies for organisations such as MiBank, they can also improve rural financial inclusion by allowing farmers to access and repay loans from anywhere.

Mobile money: catalysing innovative financing for utility start-ups in LMICs

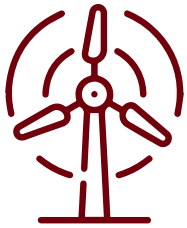
SDG 7: Affordable and Clean Energy

There is a wide funding gap for essential services in LMICs: around $6.9 trillion a year is required up to 2030 to meet climate and SDG objectives.[82] While there is broad consensus among the donor community that private capital should be mobilised to help fill the funding gap, initiatives to "crowd in" private sector capital have so far fallen short of expectations. Start-ups and small- and medium-sized enterprises (SMEs) often struggle to access the right type of financing to achieve impact at scale. This is common in sectors that face regulatory risks such as utility services, asset-heavy models (e.g. e-mobility, energy or productive use equipment) or services targeting low-income customers (e.g. clean cooking, water, sanitation and hygiene or off-grid solar). The emergence of innovative financing instruments, enabled by the growing adoption of mobile money, has started a promising trend. Mobile money has changed how businesses in LMICs operate, as well as how individuals and households access goods and services. Recent GSMA research found that mobile money can also unlock a range of financing solutions (*Figure 31*).[83]

Around

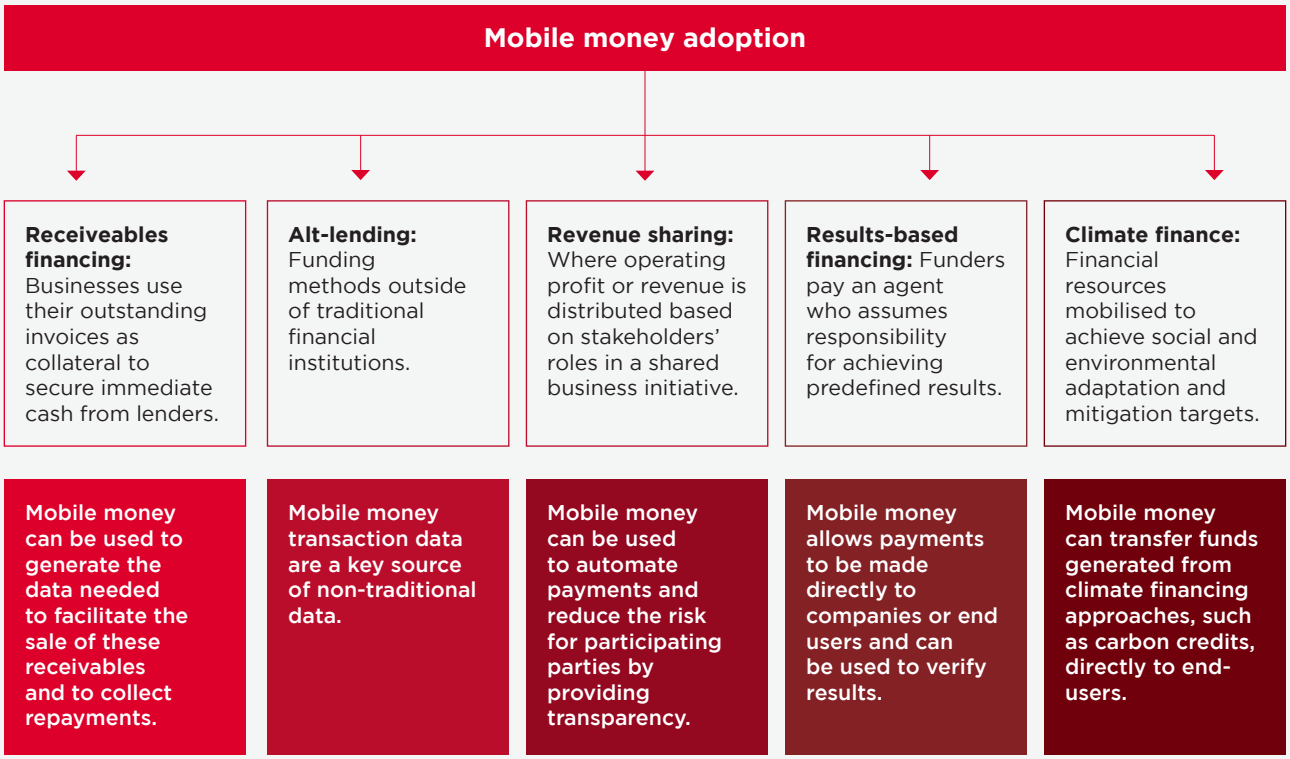
$6.9 tn

a year is required up to 2030 to meet climate and SDG objectives



[80] Gamble, E. (3 August 2022). "Smallholder loans pilot in Papua New Guinea: what did farmers have to say about the service and has it enhanced their access to finance?" GSMA Mobile for Development Blog.
[81] Bank of Papua New Guinea. (2021). Annual Report and Financial Statements: 31 December 2021.
[82] OECD, World Bank and UNEP. (2018). Financing Climate Futures: Rethinking Infrastructure.
[83] GSMA. (2023). Digitalising Innovative Finance: Emerging Instruments for Early-stage Innovators in Low- and Middle-income Countries.

Figure 41: **How mobile money can catalyse innovative financing instruments**[84]



Source: GSMA Digital Utilities

While the role of mobile money will vary by instrument, they share some important characteristics:

Mobile money transaction data can serve as the foundation for financing models that rely on advanced analytics, such as AI and machine learning, to generate credit scores.

Repayment data from PAYG models has led to portfolio-level credit scores, enabling access to capital through innovative receivables financing models. For example, leading PAYG solar providers Sun King and d.Light recently collectively raised funding worth $255 million,[85,86] releasing working capital to be used to expand across Africa.

For individuals and SMEs, mobile money accounts can create pathways for companies and customers to access digital credit services. The resulting credit records can be used to analyse an organisation's cash flow and payment history, which can also be compared against market dynamics and seasonal patterns. Such analyses can be used to provide alternative forms of trade, asset or inventory financing to utility service providers. This can be done through automated loan disbursements, "buy now, pay later" schemes or

[84] Adapted from: GSMA. (2023). Digitalising Innovative Finance: Emerging instruments for early-stage innovators in low- and middle-income countries.
[85] Pothering, J. (31 May 2023). "Sun King raises $130 million through securitization of off-grid solar payments". *Impact Alpha.*
[86] FinSMES. (14 August 2023). "d.light Closes USD$125M Funding Through Securitization Facility".

upfront asset lending. For example, Intelligria, an open platform for smartphone financing, has partnered with MTN in Nigeria and Rwanda to develop credit scores from MNO data.

Mobile money enables seamless and transparent payment collection and disbursement for several financing instruments. For revenue-share models, mobile money can enable the automatic subtraction of repayments from daily sales revenue, as exemplified by ride-hailing start-ups such as Moove. Start-ups in the clean cooking sector, such as ATEC, have used digital payments to pass on some of the revenue generated from carbon credits directly to customers.[87] Mobile money transactions are also being used to verify service delivery in results-based financing programmes, such as the Nigeria Electrification Project.[88] This is made possible by integrating with data platforms such as Odyssey that can prove service delivery.

Growing mobile money adoption and use across different use cases in LMICs is key to unlocking these financing instruments and attracting more funders and capital pools. Given the current downturn in venture capital funding across LMICs,[89] alternative financing instruments have never been more important. For such instruments to flourish, countries keen to benefit from emerging financing opportunities will need to create an enabling environment for mobile money services to thrive.

Payment for ecosystem services: supporting nature and communities

SDG 13: Climate Action

East Africa's forests, home to rich biodiversity and a major contributor to local and national economies, are under threat. The impact of climate change has affected forest ecosystems, as well as 80% of the region's population that live in rural areas and rely on forests for their livelihoods.[90] Mobile and digital solutions can tackle both ecological and economic demands on forests. These solutions have the potential to strengthen the transparency and equity of access that local communities need to protect and restore these important natural resources.[91]

In recent years, East Africa has seen growth in payment for ecosystem services (PES) schemes.[92] This model generates income for individuals or communities responsible for managing land or natural resources[93] in exchange for incentives. These can either be cash or in-kind benefits. This represents an innovative approach to balancing economic development and managing natural resources responsibly while also recognising the importance of Indigenous peoples and local communities as custodians of these resources. Mobile money can improve how PES projects are run. Mobile money services provide a secure, cost-effective and traceable way of disbursing payments directly to communities. This can reduce the risks associated with cash transactions or reliance on intermediaries to issue payments within a community. Ultimately, mobile money can ensure financial incentives are fairly distributed among all individuals responsible for a project's success.[94] In East Africa, where mobile money adoption is high,[95] PES systems can build on existing mobile money use in a community to engage and serve low-income or traditionally unbanked rural populations.

[87] Batchelor, S. (3 November 2022). "ATEC & MECS to pilot digitised 'cook to earn'". *MECS Blog.*
[88] Kibala Bauer, G. (4 July 2023). "IoT and Digital Payments: A game changer for results-based financing?" *GSMA Mobile for Development Blog.*
[89] Quadri, S. (31 October 2023). "Investors are unsettled as funding is drying up for Africa's startup ecosystem". *Rest of World.*
[90] Okumu, B., Gwanyebit Kehbila, A. and Osano, P. (2021). "A review of water-forest-energy-food security nexus data and assessment of studies in East Africa". Current Research in Environmental Sustainability, Vol. 3.
[91] GSMA. (2023). Exploring Barriers and Incentives to Digital Solutions in Natural Resource Management.
[92] Osewe, I. et al. (2023). "Critical Analysis of Payments for Ecosystem Services: Case Studies in Kenya, Uganda and Tanzania". Forests, 14(6).
[93] Such as forests, water or biodiversity.
[94] GSMA. (2020). Digital Dividends in Natural Resource Management.
[95] For example, in Kenya, of the total adult population, 94% of women own a mobile money account compared with 92% of men. Source: GSMA. (2023). The State of the Industry Report on Mobile Money 2023.

BOX 7: Case study: Fairtree's pay-to-grow system

Fairtree,[96] an organisation active across East Africa, has developed a "pay-to-grow" system to encourage reforestation and support communities across Kenya, Uganda and Tanzania. Using data collected through the Treetracker mobile app, Fairtree makes direct payments to community-based users for planting and maintaining trees. As the benefits of reforestation are not immediate, this approach ensures that young trees continue to be cared for by offering financial payments to growers at regular intervals. Fairtree sends payouts to users through M-PESA in Kenya and Tanzania, and MTN MoMo in Uganda. Using such familiar payment services can enhance the credibility of, and trust in, Fairtree's pay-to-grow system. It also enables Fairtree to assess and verify new growers based on their status as existing mobile money users more effectively. To date, Fairtree has helped growers plant more than 250,000 trees.

Image credit: Freepik.com

Technological advancements, expanding 4G and 5G mobile coverage and rising mobile money adoption across Africa present new opportunities for natural resource management solutions. Notably, these developments can lay the groundwork for communities to actively participate in the voluntary carbon market.[97] In doing so, communities can contribute to global climate change mitigation efforts while providing meaningful sources of income for underserved populations.

Mobile money for e-government: lessons from Ghana

SDG 17: Partnerships for the Goals

Several governments use mobile money to collect taxes, fees and other government revenue. Many use mobile money to make social welfare and subsidy payments, and for healthcare and insurance payments, among other use cases (*Figure 32*).

[96] See: https://fairtree.org/
[97] Voluntary carbon markets are markets in which individuals, organisations or companies can buy or sell carbon credits voluntarily to offset their carbon emissions.

Figure 42: **Mobile money or mobile-enabled payments for e-government services**

Person-to-government (P2G)	Business-to-government (B2G)	Government-to-person (G2P)	Government-to-business (G2B)
Tax payments and tax filings to the revenue authority		Tax refund	
Social security payments (e.g. national insurance)		Social protection (e.g. cash transfers, pensions)	Procurement contract fees
Government fees (e.g. business registration and licences, passport renewal)		Salaries, pensions	
Government fines and levies			
Public utilities (e.g. electricity, water and gas)			
Public healthcare services			
Fees to educational institutions			

Source: Osakwe, S. (2023). Inclusive E-Government Services in Ghana: Enhancing Women's Access and Usage. GSMA.

Mature mobile money markets offer a major opportunity to adopt e-government services and payments. For instance, Kenya aims to provide all government services through the eCitizen platform by the end of 2023.[98] In Ghana, the steady growth of the DFS ecosystem can make e-government services more far reaching and inclusive, empowering citizens, businesses and government agencies.

Ghana.GOV[99] is the lead digital government and revenue collection platform in the country, which aims to offer the public a single point of access to e-government services. Several government ministries, departments and agencies already offer their services via the Ghana.GOV platform *(Figure 33)*. The portal allows Ghanaians to apply and pay for various government services online. This includes birth, death and marriage certificates, business registration and permits, passport applications, vehicle registrations and driving licences. The portal encourages users to pay digitally, for example, via mobile money.[100]

Figure 43: **Ghana.GOV uptake**

Results	2020	2021	2022
Agencies onboarded	60	140	1,295
Transaction count (m)	1.61	9.85	10.03
Total receipts (GHC bn)	5.04	40.31	62.76

Source: NITA (National Information Technology Agency)[101]

Despite growing adoption, many payments for government services and fees are still not digitised. Ghanaians using digital government services face several challenges.[102] These include limited functionalities of e-government platforms; a lack of user-centric, mobile-first solutions; the perceived cost of mobile money services due to the e-levy on digital transactions; and a lack of awareness and education about e-government and mobile money, especially among women.

[98] Maundu, C. (3 July 2023). "Kenya draws inspiration from Estonia in its journey toward e-governance". *GlobalVoices.*
[99] See: Ghana.GOV
[100] Republic of Ghana. (2022). Medium Term Expenditure Framework (MTEF) for 2022–2025.
[101] See: NITA
[102] Osakwe, S. (2023). Inclusive E-Government Services in Ghana: Enhancing Women's Access and Usage. *GSMA.*

Lack of mobile-first platforms

Ghana.GOV was designed as a web-based platform and has limited capacity for end-to-end service delivery. This restricts the potential value proposition to users and can deter active engagement and transactions. The platform can be improved by making delivery user friendly through a user-centric mobile app. This could increase public engagement and stimulate growth in the digital economy.

Cost of mobile money services

The cost of mobile money services is a major, indirect impediment to the use of mobile money in e-government platforms. Many users in Ghana recognise the benefits of using mobile money to pay for utility bills, taxes, fees and levies. However, a substantial number of mobile money users and non-users believe the service is too expensive. Mobile money payments to the government are exempt from the levy, but this has discouraged frequent use in general, which has a knock-on effect of lower P2G and B2G payment adoption.

Awareness and education

Greater adoption of e-government services and payments can have a significant impact on financial inclusion and empower low-income households and small businesses. Increasing awareness and educating the public about the availability and benefits of using e-government services is necessary to drive adoption.

Women can especially benefit from e-government services. As lead contributors to many households, women can more easily access P2G payments for healthcare and education services, and gain better access to social protection programmes. Women-led microenterprises can also benefit from seamless business payments for government services. Government agencies can increase the adoption of e-government services through comprehensive awareness-raising campaigns. Partnerships with CSOs are important for successful education campaigns. MMPs can also play a key role by including training on e-government service payments in their regular mobile money training, either through SMS messages or in-app tutorials. In addition, development partners, such as donors, can embed e-government modules in digital training programmes offered to underserved groups.

Barriers to digital financial literacy in LMICs

SDG 1:
No Poverty

SDG 5:
Gender Equality

SDG 8:
Decent Work and Economic Growth

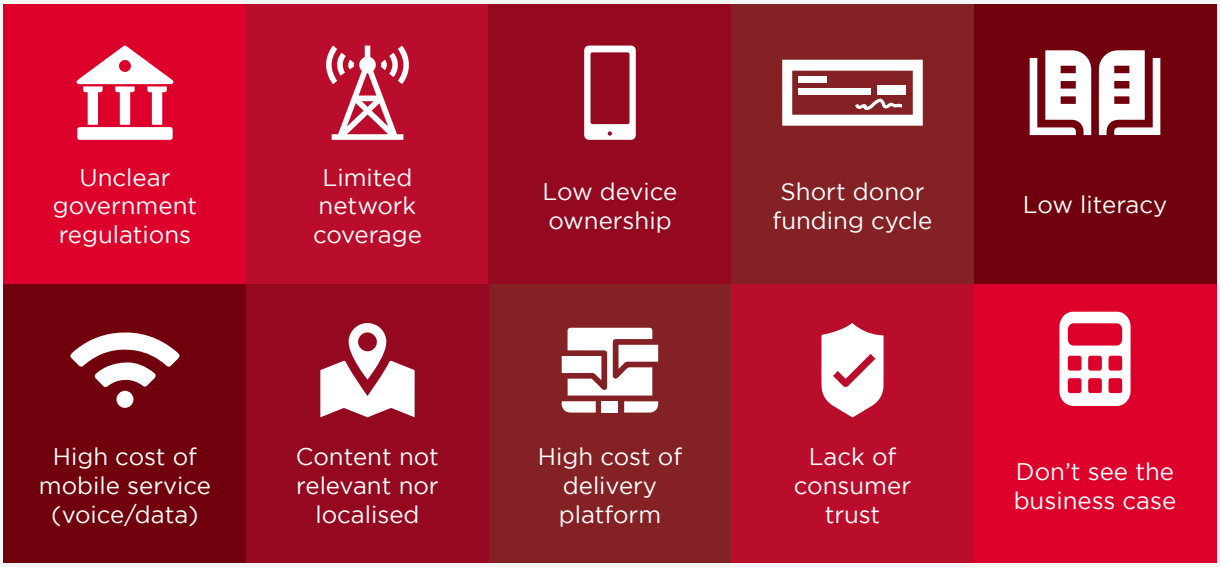
Despite the growth of digital financial services, many users are unable to access them without help or may be unaware of how they might benefit their lives. Low levels of digital and financial literacy in LMICs have affected the delivery, uptake, use and promotion of DFS. Underserved groups in LMICs, such as women and rural populations, are particularly affected. Low literacy can also make users vulnerable to consumer protection risks that can affect their financial resilience.

In 2022, the GSMA partnered with Visa to improve access to digital financial literacy (DFL) content for the unbanked and underserved in LMICs. Although financial literacy programmes have been operating for several years, most are conducted in person and challenging to scale.

To overcome this barrier and increase the impact, several donors and governments have introduced DFL programmes in recent years.

The GSMA and Visa reviewed these early initiatives and uncovered important barriers to wider adoption in Africa (*Figure 34*).

Figure 44: **Barriers to wider DFL adoption in Africa**



Source: GSMA Mobile Money programme

BARRIER 1 Unclear government regulations

In most Sub-Saharan African countries, DFL content is not regulated. However, content can be subject to review if it is perceived to promote a product or explain recourse mechanisms. This lack of clear regulations has posed challenges for organisations offering DFL content.

BARRIER 2 Limited network coverage, particularly in rural areas

DFL providers have developed several solutions to plug coverage gaps. Some providers use mobile apps with an offline function. Others deliver their content when users are expected to be within reach of a network.

BARRIER 3 Low device ownership

A mobile phone is necessary to access DFL content. For content delivered through mobile apps, video or WhatsApp, users require access to a smartphone. However, smartphone ownership is low, particularly among women and smallholder farmers, who are often the main targets of DFL initiatives. To maximise impact, many DFL providers use interactive voice response (IVR), as it can be accessed using a feature phone. In rare cases, users have been given subsidised smartphones pre-loaded with DFL content.

BARRIER 4 Short donor funding cycles

Launching DFL programmes often takes longer than anticipated. It takes time for providers to develop content, test it with users, build a delivery platform and form local distribution partnerships.

BARRIER 5 Low literacy levels, particularly in rural areas and among women

DFL content that requires users to read a lot of text that includes complicated or technical language or has too many text-based prompts, can turn off potential users. This is compounded when content is presented in a language not native to users. For example, in Senegal, only a third of the population – and less than 10% of women – speaks French.[103] Content in French would therefore be inaccessible to most Senegalese even though it is the country's official language.

BARRIER 6 Unwillingness of users to pay for DFL

Concerns about incurring charges to access content can deter many users from participating in DFL programmes. Many DFL providers send text messages to remind users that their content is free to access.

BARRIER 7 Generalised content that is not specific to users' every-day lives

Many early DFL content providers used free lessons offered by universities and e-learning platforms. Global organisations such as the OECD and Microsoft also offer DFL content. However, given that this content is not always developed with users in mind, it may fail to appeal to the target audience.

BARRIER 8 High cost of a DFL delivery platform

Safaricom in Kenya began developing a DFL programme and approached several local providers that charged more than what Safaricom was willing to spend. This delayed Safaricom's DFL plans for two years. The programme only resumed after Microsoft offered an e-learning platform at no cost.[104]

BARRIER 9 Lack of consumer trust

Many users may distrust messages received on their mobile phones given the risk of fraud. To overcome this and lower the chance of DFL messages being ignored, DFL providers can partner with local associations and community leaders that users may already trust.

BARRIER 10 Inability to see the business case for providing DFL content

A DFL programme may incur costs to build a delivery platform, zero-rate content for users and offer incentives such as free airtime or data allowances. Without tangible evidence of growth in adoption and activity, DFS providers may hesitate to join DFL initiatives.

By breaking down low digital financial literacy into 10 barriers, MMPs and other DFS providers can tackle each one systematically, rather than using a blanket approach. Previous studies have explored the impact of financial literacy on mobile money adoption and use. While financial literacy has been found to increase mobile money use in several communities,[105] its impact can vary depending on the characteristics of a population, including gender, income level and urban or rural settings. By considering such demographic differences, these 10 barriers offer an opportunity for MMPs to partner with DFL providers to target specific communities in their markets.

[103] Translators Without Borders. (n.d.). "Language data for Senegal".
[104] Safaricom Kenya interview, September 2023.
[105] Matita, M.M. and Chauma, T. (2019). Does Financial Literacy Influence Use of Mobile Financial Services in Malawi? Evidence from Malawi Household Survey Data. AERC Research Paper 369. African Economic Research Consortium (AERC).

Appendices

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 2023 Global Adoption Survey on Mobile Money and Mobile Money Estimates and Forecasts. This supply-side data is further enhanced with nationally representative quantitative primary research from the 2023 GSMA Consumer Survey of seven LMICs.

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.

GSMA Mobile Money Deployment Tracker[106]

The Mobile Money Deployment Tracker monitors the number of live mobile money services across the globe, collated monthly using both primary and secondary sources. It 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 service providers represented in the GSMA Mobile Money Deployment Tracker were invited to participate in the 2023 survey. Respondents supplied standardised operational metrics about their services for September 2022, December 2022, March 2023 and June 2023, on a confidential basis. A total of 101 service providers from 55 countries participated in the 2023 survey. The full list of survey participants is included in the Appendices below.

[106] GSMA Mobile Money Deployment Tracker: www.gsma.com/mobilemoneymetrics/#deployment-tracker

GSMA Global Adoption Survey methodology

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 the GSMA Intelligence team, combining their analytical and telecoms expertise with 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, unique 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, bank-to-wallet, wallet-to-bank, off-net and on-net P2P transfers). Our methodology combines multiple approaches to market sizing, following the five main steps below:

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 Survey. 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

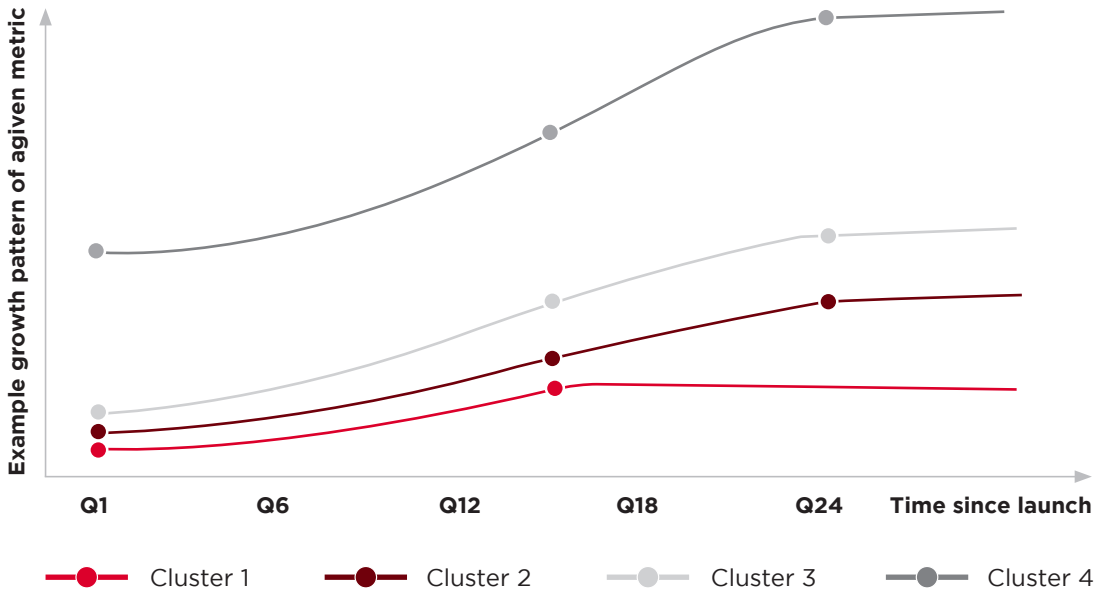
Countries were clustered based on the fundamental conditions of mobile and banking adoption in each country, as well as criteria for mobile money success identified through a joint study with Harvard Business School.[107] The clusters were further shaped based on the Mobile Money programme's market knowledge. As a result, we grouped countries into four clusters based on how compelling the mobile money proposition is for that group of countries.

[107] 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 Mobile Money.

3

Formulation of guiding principles

We developed guiding principles to determine how a given metric is expected to evolve. The following is an example of the guiding principles of growth patterns of a given metric:



4

Modelling

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

5

Validation

Once the modelling was complete, we reviewed the output at the service, country and global levels. In this step, we identify any outliers and check for further explanation. This validation process requires close collaboration between GSMA Intelligence and the Mobile Money programme's market experts.

Image credit: Freepik.com

GSMA Consumer Survey methodology

The consumer insights presented in this report are based on a nationally representative survey conducted in seven LMICs (Bangladesh, India, Indonesia, Kenya, Nigeria, Pakistan and Senegal) that were part of the broader Consumer Survey conducted annually by the GSMA. Fieldwork was conducted between Q3 and Q4 2023. This research aimed to unpack consumer use of mobile money and mobile money-enabled services.

In all countries, a nationally representative sample of the adult population aged 18 and over was surveyed. A minimum of 1,000 interviews were conducted in each country, with 2,000 interviews undertaken in India. To achieve a nationally representative sample, quotas were applied in line with census data (or other appropriate sources) on the following metrics:

- Age category by gender;
- Urban and rural distribution by gender;
- Region/state; and
- Socio-economic class (SEC) to ensure a representative segment of lower-income respondents was included.

While a quota was not applied to education (other than where it contributed to SEC classification), it was tracked regionally and nationally during and after the fieldwork as an important indicator of a representative sample.

Sampling points where interviews were conducted were distributed proportionately between urban and rural areas following census data and national statistics offices. To achieve wide geographical coverage and reduce the effects of clustering, a minimum of 100 sampling points were used in each country (200 in India).

This research used a mix of purposive and random sampling approaches. Depending on the country, sampling points were either randomly distributed — with an administrative area's probability of selection proportionate to the size of its population (random sampling) — or selected to reflect the linguistic, cultural and economic variations of each country (purposive sampling). Local experts and national statistics offices checked the sampling frames to ensure they were valid and representative.

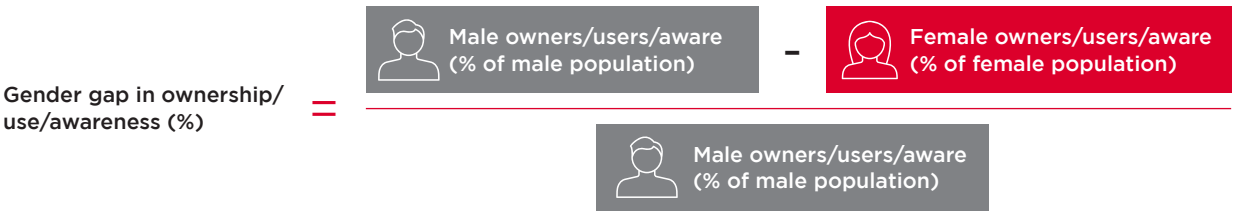
The survey was delivered via interviewer-administered computer-assisted personal interviewing (CAPI). Survey interviews were conducted in the local language(s) by both female and male interviewers. Interviews were conducted at respondents' homes. Within sampling points, systematic random routes were used for residence selection.

Weights were applied to the data using a random iterative method (RIM) whereby several non-interlocking quotas were applied in an iterative sequence and repeated as many times as needed for the quotas to converge. This corrected any imbalances in the profiles, although weightings (and the resulting impact on effective sample sizes) were minimised as much as possible by controlling key quota variables throughout the fieldwork.

The sampling approach was designed to achieve full national representativeness where practical; however, some more remote rural areas or regions with ongoing unrest or security concerns were excluded from sampling. This may have had an impact on results, especially since mobile phone coverage, access and use will be different, and likely most limited, in these areas, particularly for women.

Gender gap calculation methodology

The gender gaps (e.g., for ownership of a mobile money account, use or awareness of mobile money) in this report, are calculated using the following formula:



Methodology for report: GSMA, (2023). Mobile money: How digital payments have impacted economic growth.

This report summarises the results of an econometric analysis carried out by GSMA Intelligence, commissioned by the GSMA Mobile Money Programme. It establishes a causal link between the adoption of digital financial services in LMICs and long-term economic growth. It relies on two global, unique and novel datasets on mobile money use and regulation between 2013 and 2022. Further details on the econometric framework applied, as well as the data used, can be found in the technical paper: GSMA Intelligence (2023), Beyond financial inclusion: Does mobile money drive GDP growth?

Glossary

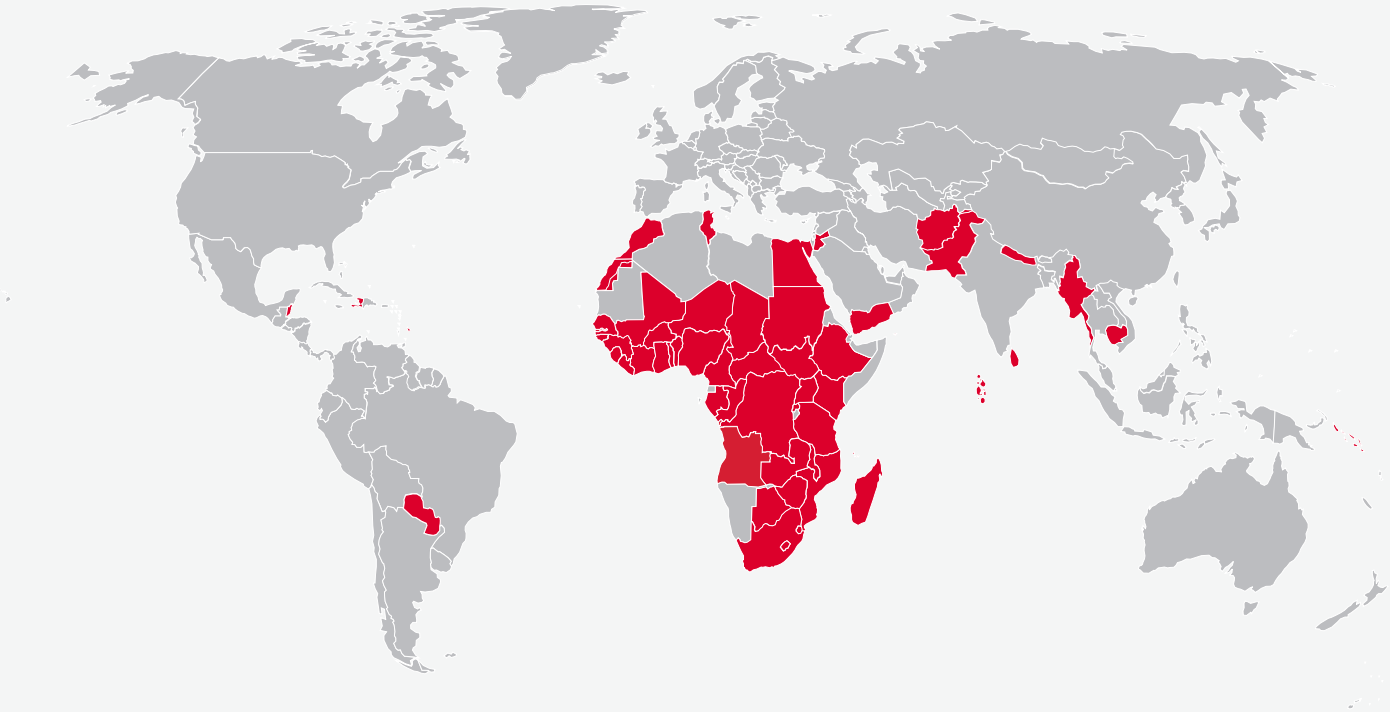
Agent outlet	In the case of mobile money, an agent outlet is a location where one or several provider-issued tills are used to conduct transactions for clients. The most important of these are cash-in and cash-out (i.e. loading value into the mobile money system, and then converting it back out again); 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 touchpoint for the mobile money service, they also often provide frontline 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 term "merchant" or "retailer" to describe this person or business to avoid certain legal connotations of the term "agent" as it is used in other industries. An active agent outlet is an agent outlet where any of the tills were used to facilitate at least one transaction within the last 30 days. Agent tills are provider-issued "lines", which can be SIM cards or POS machines, authorised and used to facilitate mobile money transactions.
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 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, 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 are two distinct country corridors.

Credit enabled by mobile money	Credit enabled by mobile money uses the mobile phone to provide microcredit to customers. The GSMA considers credit services enabled by mobile money to meet the following criteria: • 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. • 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 which 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 are not included. • The service must be available for customers on any type of mobile device (including smartphone apps).
Diaspora	Migrants or descendants of migrants whose identity and sense of belonging, either real or symbolic, have been shaped by their migration experience and background. They maintain links with their homelands, and to each other, based on a shared sense of history, identity or mutual experiences in the destination country.
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 can 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 are typically held in trust for the benefit of the mobile money user. 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 using 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	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: • To use the service, the customer must have a mobile money account to pay premiums and receive claims. (Services that allow payments via airtime but pay out claims through mobile money are also included). • The service must allow customers to manage risks by providing a guarantee of compensation for specified loss, damage, illness or death. • 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)	Financial institutions and regulated financial service providers are obligated by regulation to perform due diligence to identify their customers. The term is also used to refer to the regulation which governs these activities. The FATF recommends a risk-based approach to due diligence for AML/CFT controls. Due to the lack of formal identity documents in some markets, solutions such as tiered KYC and adjusting acceptable KYC documentation can help mobile money providers facilitate customer adoption and increase financial inclusion, especially in rural areas.
Liquidity management	The management of the balance of cash and e-money held by a mobile money agent to meet customers' demands to purchase (cash-in) or sell (cash-out) e-money. The key metric used to measure the liquidity of an agent is the sum of their e-money and cash balances (also known as their float balance).
Merchant payment	A payment made from a mobile money account via a mobile money platform to a retail or online merchant in exchange for goods or services.
Mobile 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 money	A service is considered a mobile money service if it meets the following criteria: • A mobile money service includes transferring money and making and receiving payments using the mobile phone. • The service must be available to the unbanked, for example, 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. The agent network must be larger than the service's formal outlets. • Mobile banking or payment services (such as Apple Pay and Google Pay) 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 Google Pay and Samsung Pay, 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 (usually 90 days or 30 days).
Mobile money account-to-bank account transfer	A direct transfer of funds made from a mobile money account to a customer bank account. This transaction typically requires a commercial agreement and technical integration between the bank and the mobile money provider to allow direct transfers.

Off-net transfer	Transfers which are initiated by registered mobile money users to unregistered users are typically referred to as off-net (off-network) transfers. Some deployments may refer to an off-net transfer as a voucher, coupon or token. In this case, the e-money must be cashed out at an agent of the sender's agent network. Transfers between two accounts of different, but interconnected, mobile money schemes are also sometimes referred to as "off-net transfers".
Over-the-counter (OTC) services	Some mobile money services are being offered primarily over the counter (OTC). In such cases, a mobile money agent performs the transactions on behalf of the customer, who does not need to have a mobile money account to use the service.
Pay as you go (PAYG)	Pay-as-you-go systems refer to services which are paid for before use and cannot be used more than the amount paid for.
Point of sale (POS)	A retail location where payments are made for goods or services. A "POS device" denotes a specialised device which is used to accept the payment, for example, a card reader.
Regulator	In the context of mobile money, this typically refers to the regulator which has supervisory authority over financial institutions within a particular country, usually the central bank or other financial authority.
Savings enabled by mobile money	Savings enabled by mobile money use the mobile phone to provide dedicated savings facilities. The GSMA considers services enabled by mobile money to meet the following criteria: • To use the service, the customer must have a mobile money account. • The savings service allows subscribers to save money in a dedicated account that provides principal security and, in some cases, an interest rate. • Also included in this definition are: • Mobile investment uses the mobile phone to provide investment facilities (e.g. in government bonds). • Mobile pension uses the mobile phone to provide pension savings facilities. • The customer should be able to store value electronically in the savings account and be able to transfer funds to/from a mobile money account. • The savings or investment product should be integrated technically with the mobile money account and rely heavily on mobile technology throughout the customer journey. • Services where the mobile phone is just another channel to access a traditional savings accounts are not included. • The service must be available for customers on any type of mobile device (including smartphones).
Technology service provider (TSP)	An organisation that provides its customers with technology-based solutions. In the context of mobile money, a TSP is a financial technology (fintech) company which develops, provides and supports the technology systems that are used to deliver mobile money services.
Underbanked	Customers who may have access to a basic transaction account offered by a formal financial institution, but still have financial needs that are unmet or not appropriately met.
Unregistered users	Unregistered users include both people transacting over the counter in the case of OTC services, and unregistered recipients of off-net P2P transfers in the case of account-based services.
Voucher	Money sent as an off-net transfer from a mobile money account holder to an unregistered recipient, along with a code for the recipient to withdraw the funds at an agent outlet. Also known as a coupon or token.

2023 GSMA Global Adoption Survey Participants



East Asia and Pacific	
Cambodia	AMK, Wing
Myanmar	Wave Money
Solomon Islands	M-SELEN

Latin America and the Caribbean	
Barbados	Zeepay
Belize	E-Kyash
Haiti	Digicel, Haitipay
Paraguay	Billetera Personal, Giros Claro

Middle East and North Africa	
Egypt	Orange
Jordan	Orange
Morocco	Al Barid Bank, Orange
Tunisia	Orange
Yemen	ONE Cash

South Asia	
Afghanistan	mHawala, MTN
Maldives	Dhiraagu, Ooredoo
Nepal	eSewa Fonepay
Pakistan	Jazz
Sri Lanka	Dialog, Mobitel

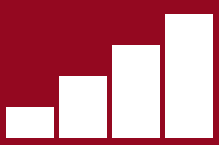
Sub-Saharan Africa	
Angola	Africell
Benin	MTN
Botswana	Poso Money, Orange
Burkina Faso	Orange, Wizall
Cameroon	MTN, Orange
Central African Republic	Orange
Chad	Airtel
Comoros	Telma
Congo	Airtel, MTN
Congo, Democratic Republic of	Africell, Airtel, Orange, Vodacom
Côte d'Ivoire	MTN, Orange, Wizall, Zeepay
Ethiopia	Ethio Telecom
Gabon	Airtel
Gambia	Africell
Ghana	MTN, Zeepay
Guinea	MTN, Orange
Guinea-Bissau	MTN, Orange
Kenya	Airtel, Safaricom
Lesotho	Vodacom
Liberia	MTN, Orange
Madagascar	Airtel, Telma, Orange
Malawi	Airtel, TNM
Mali	Moov Money, Orange, Wizall
Mozambique	Vodacom, Zeepay
Niger	Airtel, Moov Money
Nigeria	Airtel, Fortis, MTN MoMo, PalmPay, YDFS
Rwanda	Airtel, MTN, Zeepay
Senegal	Free, Orange, Wizall
Sierra Leone	Africell, Orange, Zeepay
South Africa	MTN
South Sudan	MTN
Sudan	MTN
Eswatini	MTN
Tanzania	Airtel, Tigo, TTCL, Vodacom
Togo	Moov Money, Togo Cellulaire
Uganda	Airtel, MTN
Zambia	Airtel, MTN, Zeepay
Zimbabwe	EcoCash

GSMA

For more information, please visit the GSMA website

gsma.com/sotir

GSMA HEAD OFFICE
1 Angel Lane
London
EC4R 3AB
United Kingdom
info@gsma.com



Cover page image credit: Freepik.com