

chapter 9

Value Added Services



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Monetising OTT for MNOs in sub-Saharan Africa

Three main hurdles persist in sub-Saharan Africa and prevent OTT platforms from being widely used across the region: unstable internet connections, high prices and lack of payment options. The most apparent solution in the region is to adapt the business model of each platform to offer the most relevant plan.

Several platforms such as Netflix, Showmax or Disney offer special mobile subscriptions at lower prices than traditional subscriptions, which has proven to be a real asset. While in 2022, less than 5% of households were connected to fixed internet and only 1% to fibre, mobile internet had a population penetration rate of about 45%. By partnering with mobile operators, OTT platforms can offer packages that include both a subscription to the platform and data,

at low cost and with a simplified payment method since everything is reconciled on the mobile bill. By early August 2023, Disney+ had launched a mobile plan with MTN in South Africa. Two months earlier, in June 2023, the same type of partnership was signed between MTN and Viu SA to provide Viu Premium subscription with data at a reduced price to the operator's customers. The growing number of these partnerships across sub-Saharan Africa reflects the importance of smartphones as viewing devices in a region where fixed internet is struggling to develop.

However, paid subscriptions are harder to sell; freemium seems to be an interesting alternative. At a time when the cost of the internet is already high, offering free content financed by advertising is a way of attracting consumers who do not have the resources to pay for both data and subscription, and also removes the barriers of payment method. Yet, in an advertising market that is still too unstructured, it is difficult for platforms to adapt their advertising strategy to be as relevant and therefore profitable as possible.

Added to all this is the question of the profitability of investments in technology and content to launch and maintain an OTT platform efficiently.

High speed connectivity

The increasing availability of high-speed connectivity, especially for mobile, has positively impacted OTT uptake by making content more accessible and affordable for sub-Saharan populations. On the one hand, the development of mobile internet, and more especially of 4G, will make it possible in the long term to lower even more the price of mobile data and make it more affordable to most consumers.

On the other hand, the OTT market could even more benefit from a quality fixed network. The fixed network, especially fibre, is still struggling to be developed in the region. Due to a lack of infrastructure and resources, few areas are currently connected to a quality and affordable fixed internet network. Even though initiatives are multiplying to connect the territory, such as Starlink's satellites in orbit, fixed internet is far from having reached its potential in the region.

With an efficient internet connection, viewers would rather choose to watch content on larger screens such as televisions to get the most out of the content's potential. Moreover, the aggregation of platforms on connected devices such as smart TVs or streaming devices would allow operators to bring together as many services as possible on a signal device and facilitate the user experience. The condition remains that the internet connection is sufficiently reliable for these devices to work.

South Africa illustrates the impact that high

speed connectivity can have on OTT adoption: in 2022, fibre subscriptions reached 33% fixed internet while OTT penetration stood at around 20% of households. As the fibre network continues to expand, new OTT platforms are being launched such as Disney+ and SABC+ in 2022 and Paramount+ expected this year, bringing the number of platforms available to around 20 in the country. If neighbouring countries also manage to kick off the deployment of fibre optic networks, it could create the conditions for the success of OTT services. What's left is to convince consumers not only to subscribe but also to renew their subscription over the years.

Market opportunities

Because internet connectivity is one of the main obstacles to the full adoption of OTT platforms in sub-Saharan Africa, MNOs and ISPs have seen the opportunity to offer both internet and content. Most operators started to try their hands at this like Nigeria's 9Mobile, which launched 9TV Nigeria at the end of 2022 or Kenya's Safaricom which launched BAZE in 2021.

However, the shutdown of Vodacom's platform VideoPlay in 2022, when it had the third-largest market share in the region behind Netflix and Showmax, and the low market share penetration of telecom operators' platforms reflect the limits of such projects. Let's not forget that content is king and drives subscriptions. But creating the most attractive catalogue is very expensive and time-consuming. Many platforms are launched but do not survive the market and its complexity: offering essentially local content, adapting to the different languages spoken and offering the most relevant and

accessible subscription plans while still being profitable. Telkom launched Telkom One in November 2020 and closed it in November 2022. It is the same situation for Cell C with its platform Black (2017-2019) or Econet with Kwese Play (2017-2019).

Therefore, the best opportunity for MNOs and ISPs is to partner directly with OTT platforms whereby each fulfils its original

role: the OTT platform provides the catalogue of content and the telecom operator provides the data. MTN Group has several partnerships throughout the region with different platforms such as StarNews, Showmax, Molotov, Wi-Flix or CineMagic. Vodacom, which shut down its own platform, has partnerships with Netflix, Showmax, CineMagic, Amazon Prime Video and Viu for instance. ■



Ross Flynn,
project manager,
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Value added services, often abbreviated as VAS, are non-core services offered by telecom operators to enhance the basic voice and data communication services. This seems easy to understand but ask a roomful of people what this term means, and you're guaranteed to get a wide variety of answers.

Many different products spring to mind. Some may think of the original VAS like voicemail or SMS. Others will think of gaming, being one of the most popular non-core telecom services out there. Whatever pops up, it can be difficult to comprehend the full breadth and variety of content and services within this catch-all term without leaving something out, not even considering additional details like whether the service is monetised or not, or which needs and preferences they might cater to.

This is because these supposed 'non-core' services are so engrained into our daily lives that we begin to take them for granted. Watch any of these services being disrupted for even

10 minutes and you will see from the backlash of the customer just how essential they really are to our daily lives. What began as simply connecting people through voice calls has evolved into a vast ecosystem of services, data-driven applications, and innovations.

Across the vast and diverse continent of Africa, the utility of VAS is especially developed as it plays a pivotal role in enhancing connectivity, expanding access to information, and improving the quality of life for millions of Africans. Due to just how diverse the continent is, we've seen mobile VAS innovate and come up with creative ways to serve the underserved, for example, those in rural regions who may not have reliable network connection. As the fastest growing continent there remains a huge untapped market and plenty left to be done.

Education is one of the most important VAS that just isn't spoken about enough. VAS education is transforming how Africans access learning opportunities. Mobile-based educational content, such as e-books, video lessons, and interactive quizzes, are making quality education accessible to students, even in underserved regions.

There is a real opportunity for VAS to improve the quality of life in Africa. For example, a significant portion of Africa still faces the

problem of illiteracy with more than one third of adults in sub-Saharan Africa being unable to read. In response to this, we're now seeing services in Africa that use advancements in voice AI to reach non-literate users. Creative user interfaces are used to convey information without the written word. This is increasing the penetration of VAS services in general while improving the connectedness of Africa as a whole. VAS in education contribute to a more educated and skilled workforce, which is essential for sustainable development.

Africa has witnessed a remarkable rise in mobile money services, which have revolutionized financial inclusion. Mobile banking and payment VAS, such as M-Pesa in Kenya and Ecocash in Zimbabwe, have allowed millions of people to access banking services, make payments, and transfer money even in remote areas with limited access to traditional banks. African countries remain at the cutting edge when it comes to financial inclusion through mobile VAS and the rest of the world's financial institutions can glean many lessons from it.

One such innovation was M-Pesa integrating into services like PayPal and Western Union increasing financial reach for millions in Kenya. By enabling financial transactions, expanding access to markets, and fostering entrepreneurship, VAS contribute to economic growth and job creation.

Telemedicine and mobile health (mHealth) services are becoming increasingly popular in Africa. VAS in healthcare enables remote consultations, appointment scheduling, and health information dissemination. They are critical in rural areas with limited healthcare infrastructure. Patients in Africa can connect with consultants and securely send information to be diagnosed. Mobile health services

improve healthcare access, particularly in remote areas, helping to combat disease and reduce maternal and child mortality rates.

VAS is being used to empower farmers and promote agricultural development as well. Mobile-based agricultural advisory services provide farmers with crucial information on weather forecasts, crop management, and market prices, helping them make informed decisions and improve their yields. VAS in agriculture, healthcare, and education are instrumental in poverty alleviation efforts, providing marginalized communities with tools for self-improvement.

Africa's vibrant entertainment industry is leveraging VAS for content delivery. Mobile TV, music streaming, and gaming services are booming. However, there are still issues in this area. There is still a lack of content in local languages that are made specifically for a specific local audience.

Luckily, there is good news on the horizon. Streamers are beginning to invest more in local African content. Netflix recently announced a slew of new African TV show renewals and productions. Due to the success of surprise hits like *Squid Games*, streamers are realising there is an appetite for quality programming outside of the traditional Hollywood channels. There is a dawning realisation among the streamers that audiences globally are capable of watching non-English shows that explore other cultures. This is something that the traditional linear networks were slow to grasp and something that streamers, made available through mobile VAS are all too happy to cash in on.

Despite their transformative potential, VAS in Africa faces challenges like infrastructure limitations, regulatory issues, and affordability. However, these challenges also present opportunities for innovation, public-

private partnerships, and investment in digital infrastructure.

VAS have become a cornerstone of the telecom industry's evolution. They are not just add-ons but integral components that enhance the customer experience, drive revenue diversification, and keep telecom companies

competitive in an ever-changing market. As technology continues to advance, we can expect to see even more innovative and personalized VAS that cater to the evolving needs and preferences of users, further solidifying the importance of these services in the telecom sector in continents as diverse as Africa. ■

Reimagining the future of finance

An exert from Boston Consulting Group's Global Fintech 2023

Industry fundamentals remain strong

The financial services industry is one of the largest and most profitable segments of the global economy, representing \$12.5 trillion in annual revenue pools and creating an estimated \$2.3 trillion in annual net profits or additional value — based on one of the highest average profit margins across all industries of 18%.

There is ample room for growth in the fintech sector, especially in emerging markets, given that 1.5 billion adults globally are still unbanked, with an additional 2.8 billion adults underbanked (defined as not having a credit card, using data from the World Bank Financial Inclusion Project). The total represents more than half the world's population. Moreover, almost 44% of adults globally are still heavily dependent on cash for major transactions, while 89% use a mobile phone or smartphone.

There is also still significant room for growth in digital usage in banking — currently at about 39%, compared with 98% in computer software. The figure dips as low as 17% on average for countries in the Middle East and Africa. It is important to note that although the fintech sector is coming of age, it is still at a very early stage of development, representing less than 2% of annual financial services revenues globally —

or roughly \$245 billion out of \$12.5 trillion.

By 2030, global banking and insurance revenue pools are expected to reach \$21.9 trillion, a 6% compound annual growth rate (CAGR). Annual fintech revenues are projected to grow more than sixfold from 2021-2030 to reach \$1.5 trillion. Banking fintechs' revenues — lending, deposits, payments, and trading and investments — are projected to grow from 4% to 13% penetration (at a 22% CAGR) of banking revenue pools by 2030 and are expected to represent one-fourth of global banking valuations.

Leapfrogging incumbents

Africa and the Middle East can leapfrog incumbents by adopting new technologies.

In Africa, although cash is still king, fintech could be a vehicle to solve the access issue, as most of the population is still either underserved by banks or fully unbanked. As the youngest and fastest-growing region globally — with a median age of 19 and projected population growth of an additional 1.2 billion people by 2050 — demographic shifts and earning-power increases will deepen the need for financial access.

We expect some degree of leapfrogging in technology, particularly when it comes to cashless payments. In Nigeria, 73% of adults

have a smartphone, but a mere 2% have credit cards. Accordingly, most Africans' first interaction with the financial services sector may be through their smartphones—presenting major fintech opportunities in payments and lending for regional champions with full-stack attacker models.

Historically, telco-fintech players, such as M-Pesa, developed by Vodafone's subsidiary Safaricom, have led much of the segment's growth in the region. Such players are expected to maintain their major role, alongside grassroots fintechs. We project a fintech revenue CAGR of 32% until 2030, with South Africa, Nigeria, Egypt, and Kenya being the key markets.

Three models to engender internationalization

Looking ahead, we expect a geographic expansion of fintech ideas to develop mainly through three models: the emergence of local champions, the rise of multinational fintechs, and the expanding role of big techs.

The emergence of local champions. Segments and markets with onerous regulatory constraints or high capital requirements will be fertile ground for the emergence of local champions, some of which will attempt to replicate successful models from geographies where fintech has reached a more advanced stage of development. All fintechs will be subject to local parameters but will feature more homegrown innovation.

The rise of multinational fintechs. Few fintechs, PayPal being one, have managed to successfully build a multinational business. But this status quo is poised to change within some subsegments, such as KYC/AML (Anti-Money Laundering), cross-border payments, wealthtech, etc. Multinational fintechs will likely evolve across countries that possess similar economic profiles

and consumer needs.

Big-tech expanding its footprint. Big techs such as Google, Meta, Tencent, Apple, Ant Group, and Amazon are looking to further integrate financial-services apps (especially in low-regulation segments such as payments) into their offerings through local partnerships, and eventually bring them out globally. This handful of very powerful companies, by virtue of their ubiquity, massive customers bases, and depth of customer data, are well-positioned to bring fintech-related offerings to their trusting, global audiences. They will advance either in the form of customer-facing superapps — a somewhat problematic scenario, owing to government scrutiny of potential antitrust issues — or by providing analytics to incumbents from the vast consumer datasets they possess. We have seen recent breakthroughs in this direction, such as Brazil's central bank permitting Meta's WhatsApp to include a payments offering for SMEs.

The path toward growth

Significant risks and uncertainties remain, especially concerning regulation, data privacy, competition from big tech, and interest-rate volatility.

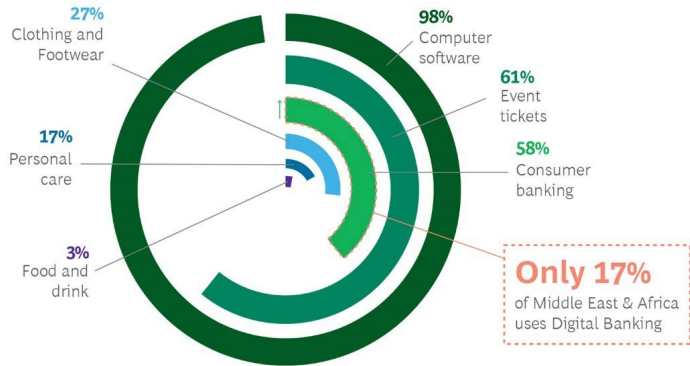
The lack of comprehensive regulation and oversight in the fintech industry, to varying degrees by industry and region, can lead to trust uncertainty among customers and prospects, which in turn can result in a low adoption rate for fintech solutions.

At the same time, the ecosystem must find a balance, as potential regulatory overreach can also hinder growth and innovation, with rigid regulations leading to higher costs, slower approvals, and reduced investment.

Fintechs also face reputational risks, which can stem from different factors. One such risk is

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2021, Share of Digital Engagement by Category¹



	Unbanked	Underbanked		Unbanked adults (M)	Underbanked adults (M)	Cash Usage (%)	Mobile Penetration (%)
	27%	50%	World	1,546	2,829	44%	89%
	5%	27%	North America	15	83	21%	93%
	8%	52%	Europe	54	357	23%	96%
	25%	55%	APAC	820	1,787	59%	85%
	35%	42%	LATAM	164	199	60%	87%
	52%	43%	MEA	493	403	58%	83%

related to data breaches and the mishandling of sensitive data. Fintechs that collect large amounts of sensitive data in an unregulated manner are at a higher risk of data breaches, which can result in severe and long-lasting reputational harm, causing a loss of customer trust and loyalty, and potentially leading to legal consequences.

Moreover, the entry of big-tech companies into the fintech industry can drive prices down and eliminate competition, creating a monopolistic environment that negatively impacts smaller

fintech startups, overall innovation, and consumers. Combining this dynamic with a higher interest rate environment that can pressure funding and therefore stifle innovation creates a tall set of challenges. Fintech startups may struggle to compete with traditional FIs that have access to cheaper funding sources.

Ultimately, however, the fintech future is bright provided that all stakeholders heed the call to action and collaborate effectively and cooperatively for the greater good. ■

Mobile money in Ethiopia: advancing financial inclusion and driving growth

An expert; originally published by the GSMA

Financial inclusion

Formal financial inclusion is a key contributor to economic development and poverty reduction. It allows people to save for economic shocks and their long-term well-being, enables access to credit to establish and expand businesses or pay for education, and to obtain essential protection such as crop and health insurance. While the percentage of the adult population in Ethiopia who have an account at a financial institution has steadily increased from 22% in 2014 to more than 46% in 2022, formal financial inclusion remains significantly lower than in other East African countries.

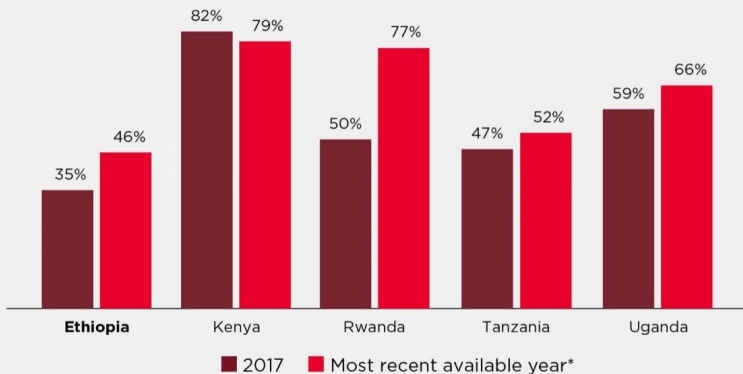
There is a large gap in financial inclusion between urban and rural areas, where more than three quarters of the population resides, as well as regional disparities in account ownership. Poorer and less literate Ethiopians, who are more likely to live in rural areas, also tend to be unbanked. The Ethiopia Living Standards Measurement Survey (LSMS 2018–2019)

conducted by the World Bank also found a rural-urban gap, with 59% of urban versus 18% of rural adults reporting having a bank account. According to Global Findex data, only 39% of women versus almost 55% of men have an account at a formal financial institution.

Increasing financial inclusion is a priority for the government, as demonstrated by the new National Financial Inclusion Strategy (2021–2025), which aims to increase formal financial account ownership among adults to 70% by 2025. It also recognises the need to improve women's financial inclusion and aims to halve the gap in account ownership between men and women by 2025. Global Findex data shows that in 2022, 5% of adult men and just over 4% of adult women had mobile money accounts in Ethiopia.

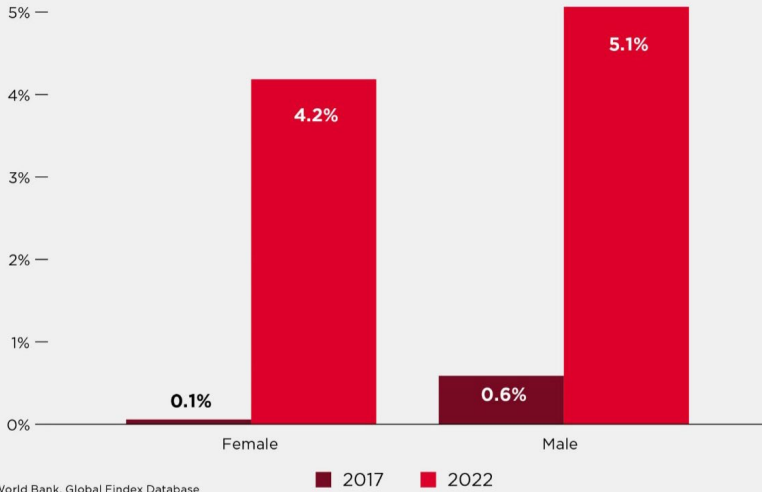
While mobile banking services were first piloted in Ethiopia in 2015, they have remained limited in scale. Regulatory reform in 2020 allowed non-bank

Formal financial inclusion in Ethiopia compared to other East African countries
(Percentage of the adult population)



*2020 for Rwanda, 2021 for Kenya, Tanzania and Uganda, and 2022 for Ethiopia
Source: Global Findex (2021)¹ and Findex (2020)

Mobile money account ownership in Ethiopia in 2022
(Percentage of the population aged 15+)



organisations to offer mobile money services. This is a crucial development for financial inclusion in Ethiopia, as MNO-led mobile money services in other African countries, notably Kenya, Ghana, and Uganda, have had enormous success in advancing financial inclusion in regions where traditional financial institutions have failed.

Until September 2022, Ethiopia had only one state-owned mobile operator, Ethio Telecom. However, the liberalisation of the sector has allowed Safaricom to enter the market and launch services. The Ethiopian Communications Authority (ECA) is also seeking a new international MNO to enter the market.

Competition between Ethio Telecom and new entrants is expected to drive uptake of digital financial services (DFS) via mobile money and improve financial inclusion. The specific objectives of Ethiopia's National Financial Inclusion Strategy (2021–2025) related to mobile money adoption are to expand agent networks to remote areas to deliver mobile money services; accelerate the use of mobile money for G2P/P2G payments and social protection/humanitarian payments; and

increase awareness of mobile money services, particularly in rural and remote regions that are currently underserved. The strategy also includes plans to improve interoperability between payment systems, which would enable mobile money services to scale faster.

Mobile money impacts

Regulatory reform has given impetus to mobile money in Ethiopia, reflected in the significant growth of mobile money accounts in the country. Ethio Telecom launched a mobile money service, telebirr, in 2021 and has rapidly grown its mobile money subscriber base. Since entering the market in November 2022, Safaricom has established a presence in 22 Ethiopian cities, covering 22% of the population by May 2023.

Globally, there is strong evidence that mobile money has an impact on smoothing consumption and the ability to cope with risk. One study in Kenya showed that consumption among M-Pesa users is unaffected by negative income shocks, whereas non-

users experience a 7% drop in consumption. Another study in Tanzania found that the consumption level of villagers who were mobile money users was unaffected by climate shocks such as floods or droughts, whereas non-users saw a 6-11% decrease.

Most studies show that mobile money increases consumption and can reduce poverty. In Uganda, mobile money adoption increased total household per capita consumption by 7-10%. A study in Kenya found that mobile money lifted 2% of households out of poverty and that long-term consumption grew by 8.5% among those living in areas with many mobile money agents. It also found that poverty reduction was greater among female-headed households and that access to mobile money brought significant changes in occupation choice, largely among women, who moved away from agriculture to business and retail.

Recent research has also explored the potential of mobile money to promote the development of women-led microenterprises. In Mozambique, providing mobile savings accounts and improving the financial management skills of female-headed businesses is associated with an increase in business performance, a narrowing of the gender profit gap and financial security for microentrepreneurs.

Moreover, an assessment by the International Monetary Fund (IMF) has found that digital financial inclusion can accelerate GDP growth, while a study by Vodafone, Safaricom and the United Nations Development Programme (UNDP) found that countries with successful mobile money adoption experienced higher GDP growth compared to countries without mobile money. Recent studies have shown that in markets with mobile money services versus those without, mobile money can increase tax revenue by increasing GDP per capita, improving institutional capacity, and simplifying tax collection payment processes.

Drawing on these empirical findings, we have modelled the projected impact of scaling mobile

money in Ethiopia. We found that it could lift between 200,000-700,000 people out of extreme poverty by 2030, depending on the level of adoption. Our modelling also suggests that, depending on the level of adoption, mobile money adoption could increase real GDP by 0.7-2.5% by 2030, equivalent to \$1.5 billion to \$5.3 billion in 2022 prices or 69-251 billion birr.

Mobile money adoption trends

According to the 2022 GSMA Consumer Survey, among mobile money account owners in Ethiopia, 51% had made a transaction in the last 30 days and 30% in the last week. However, mobile ownership, a prerequisite for mobile money adoption, is relatively low in Ethiopia, especially among women. In the GSMA Consumer Survey, 76% of men compared to 55% of women, reported owning a mobile phone.

The affordability of mobile handsets and subscriptions is a major challenge to mobile money adoption. According to the Alliance for Affordable Internet (A4AI), the cost of a smartphone is particularly significant, and represents almost 97% of average monthly income in Ethiopia compared to 34.36% in Kenya and 33.29% in Nigeria. Current inflation at over 30% and heavy taxes levied on imported mobile phones have compounded the affordability challenge. In addition, the manufacturing of local phones, which gained some momentum in 2016, has been crowded out by a shadow market for cheap phones.

Recent research by the GSMA identifies two viable strategies to lower handset costs: improving the cost-efficiency of handset manufacturing and expanding access to handset financing for end users. The most promising approaches to drive down the costs of mobile phones include developing lower-end internet-enabled handsets, optimising component costs, refurbishing phones, and reducing procurement, distribution, and marketing costs.

Following examples in Africa such as Orange Senza, MTN Smart T, Techno T091 and Vodacom Smart Kitchi, there is an opportunity for Ethiopian MNOs to provide access to more affordable smart feature phones, with the additional benefits of longer battery life, greater resilience and relevant pre-loaded apps and content. In parallel, financing schemes that use alternative data for credit assessments, or accept a handset as collateral, present an opportunity to boost mobile ownership by reducing the upfront cost.

Awareness of mobile money services is a critical step. Key drivers include the maturity and competitiveness of the local market, the presence of extensive agent networks and the robustness of mobile and mobile money infrastructure. Mobile money awareness in Ethiopia is limited, and women and those living in rural areas tend to have lower awareness compared to men. In the GSMA Consumer Survey, only 35% of female respondents reported being aware of mobile money compared to 49% of male respondents.

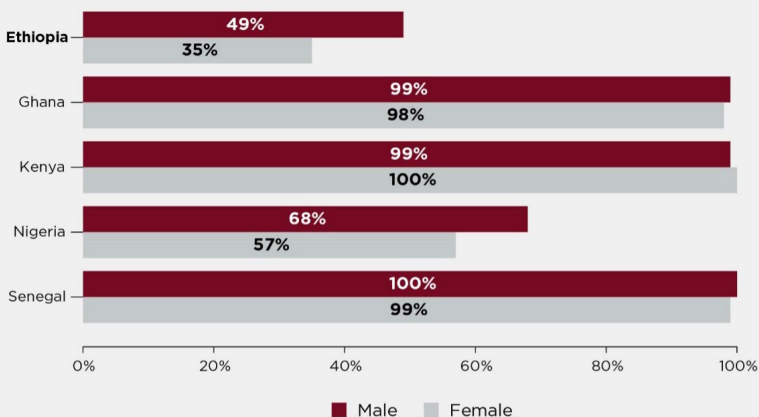
Among mobile owners who are aware of mobile money, the main barriers preventing them from owning an account was the lack of perceived relevance

of the service to their everyday financial activities. 50% of both men and women in the Consumer Survey reported insufficient funds to warrant opening an account and more than 40% of men and women reported a preference for cash. Mobile money service providers will need to expand payment use cases and offer products that are targeted and relevant to end-users to incentivise a shift towards mobile money.

Crucially, relevance is related to the availability of services in local languages. While Oromo and Amharic are spoken by the majority, Ethiopia has approximately 88 languages. For users to be able to use services, they need to understand them. While telebirr is offered in five different languages, users from minority linguistic groups risk being excluded or face challenges in using the full suite of functionalities of mobile money.

Previous research by the GSMA Mobile Money programme highlights the importance of education for individuals to use DFS safely and confidently, including basic and financial literacy. Almost half of Ethiopian adults do not have basic literacy and, at the national level, 57% of men and 43% of women are literate. Adults in Ethiopia have less formal education

Mobile money awareness in Ethiopia compared to other Sub-Saharan African countries
(Percentage of total adult population)



Source: 2022 GSMA Consumer Survey

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than those in most other countries in sub-Saharan Africa, and children are expected to spend less time in formal education than in most other sub-Saharan African countries.

While mobile money providers have tried to overcome some literacy barriers by offering services that use simpler interfaces and local languages, scaling mobile money will require targeted upskilling strategies and training in rural areas. Improving digital and financial literacy and skills will be critical to drive mobile money adoption and usage.

Moreover, enabling policy and regulations, better payments interoperability, sufficient and widespread access points and high-quality agent networks are key factors that will determine whether Ethiopia sees high levels of adoption of mobile money services.

KYC and an efficient digital national identity scheme will be a key enabler as more robust identity verification is needed to help mobile money providers (MMPs) offer a wider suite of financial products. Better cybersecurity and stronger implementation of cybersecurity laws will reduce the risk of fraud and build confidence in mobile money services. A personal data and protection legislation will also help

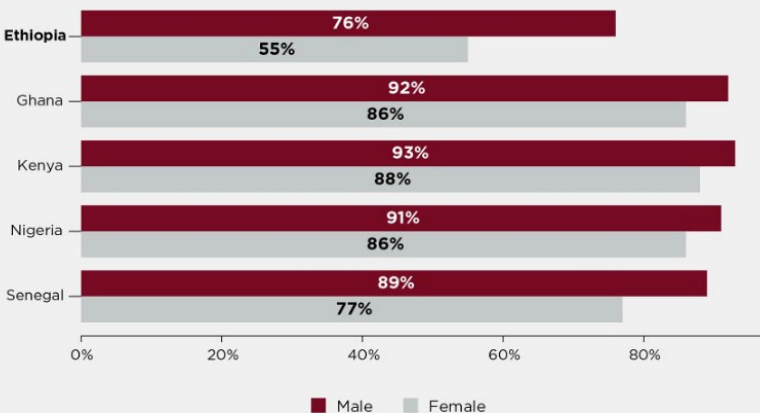
build consumer trust while guiding service providers on how to ensure personal data protection.

Conclusions

Recent market liberalisation that has allowed MNOs to deliver mobile money services in Ethiopia could be transformative for financial inclusion. Though there is currently one state-owned MNO in the market, with Safaricom receiving its licence and additional entrants expected to enter the market, there is a significant opportunity to financially include millions of Ethiopians.

While regulations are enabling and payments interoperability has improved, signalling a maturing digital financial services ecosystem, there are significant challenges to scaling adoption, which will require concerted and collaborative effort from the government and policy makers, public and private sector organisations, MMPs, donor and development agencies and local civil society organisations. These organisations should prioritise the following strategic actions to overcome challenges and increase financial inclusion through mobile money in Ethiopia. ■

Mobile phone ownership in Ethiopia compared to other Sub-Saharan African countries
(Percentage of total adult population)



Source: 2022 GSMA Consumer Survey



Ali Karaosman,
operations director MEA, Telecoming

Technology plays a key role in Africa. According to the GSMA, there will be 15 million 5G network connections in West Africa by 2025, 41 million in sub-Saharan Africa, and 116 million in North Africa and the Middle East. This will enable the development of economic and social innovations — developments with a real impact on people's lives.

As a sportech company, Telecoming is very interested in the digitalization process of the sports industry. Connectivity in stadiums and other sports venues will enable new interactive experiences, increase the ability of users to generate and enjoy content, and respond to new consumption patterns of the younger generations.

One of the trends that we've seen in Africa, which could have significant potential, is Superapps. In Asia, millions of people use them daily and in Africa, there is a growing interest since they allow access to services such as messaging, payments, transportation, etc., within a single application. This model is exciting because it limits data use

and keeps users loyal to a single environment with an increasingly complete offer. There's a long way to go, but we are already collaborating with operators that are developing Superapps.

The region is also the global epicentre of mobile payments, with growing demand for alternative payment technologies, such as direct carrier billing (DCB). Merchants and mobile operators work together to promote DCB as an effective payment method beyond digital content. Telecoming is committed to continuing to add value to this increasingly dynamic market by growing our sports entertainment offering. The DCB industry in Africa and the Middle East is set to grow annually by 20% over the next five years, representing a unique opportunity to offer high-value propositions.

Africa is a highly dynamic region where mobile extends to practically the entire population. Beyond calls and messages, the network is an infrastructure enabling the development of other services. More than 60% of the African population is under 25 years old. The next generations will enter strongly into the mobile economy, imposing their consumption habits on the small screen. Some products, such as games and sports, are of common interest among the African population, and their mobile consumption is total. Operators must offer services with new experiences. ■

Looking ahead: Many technologies will impact Africa in the coming years. We will see innovation in many markets, which will have a deep impact on many industries, including sports and entertainment. Mobile will continue its consolidation as a point of access to purchases and as a preferred payment technology. This purely mobile experience will be transferred to other markets, such as ticket sales, transportation and restaurants.

We must also pay attention to subscription-based businesses. The subscription economy in Africa and the Middle East is valued at more than \$11 billion annually and will grow at double-digit rates every year, driven mainly by digital services.

Among all this, Africa will not be oblivious to the artificial intelligence (AI) developments already reaching all markets. The eruption of AI will mean an adaptive challenge in many industries but will bring endless opportunities for all markets.



Wayne Nelson-Esch,
regional director of operations,
Avatar World Group (AWG)

The past year has been a challenging one on multiple fronts for the digital entertainment and content business across Africa. Digital services are however still a very important growth area for all regional OPCOS' as customers become more connected. This enables access to high quality digital entertainment services and content across various genres, necessitating a customer focused approach to providing services that are relevant, high quality and contextual for customers that deliver value.

Customer spend and affordability is a challenge for many mobile operators. Users are a lot more discerning on what they spend on mobile telephony services (i.e. voice, data, bundles, digital services, etc.). This results in pressure on the 'mobile airtime wallet.' This in turn requires digital service providers to ensure that the types of products and services they offer provide real value to customers. If a customer sees value from the content offered in the service, they're more likely to subscribe.

The opportunities in Africa today include giving customers more payment options for digital services; providing new types of services that could be ad-funded; bundling of digital services to create a more complete package; higher localisation of content; providing segment focused offerings that take the customers persona, segment, affordability and accessibility into account; and providing mobile first content offerings, offering services customers can actually consume.

As smartphones become more widely available, and high-speed data networks

“Customer spend and affordability is a challenge for many mobile operators. Users are a lot more discerning on what they spend on mobile telephony services (i.e. voice, data, bundles, digital services, etc.).”

(4G/5G) grow, rich media services will continue to grow. Digital services with a video and/or gaming component are popular. We see that when you give a positive customer experience, customers engage. When you give them access to data or service offerings, their spend increases over time. Digital services that are thematic based with a specific value proposition and go-to market strategy tailored to segments are growing e.g. kids, women, sports.

Africa has over 1 billion people across 55 countries. Within those countries you have multiple customer segments, profiles, languages, and affordability levels that are far more diverse than first world or other third world global markets. Other first world global markets have higher levels of affordability, accessibility and literacy rates compared to many parts of Africa. Third world global markets (India, Brazil etc.) have similar challenges to Africa, as well as their own unique challenges. One therefore cannot apply a cookie cutter approach and assume just because it worked in Brazil or India, that it's going to work in Africa. Even within African continent, what customers want in East Africa is going to be different from those in West Africa. Affordability and accessibility are key differentials in the African market compared to other global markets. Local laws,

regulations, exchange controls etc. also provide a unique challenge to operating in Africa compared to other markets.

With respect to digital services, I think the overarching market need is to provide good value propositions at an affordable price that gives customers access to the content and services they want. The need is therefore

packaging digital services into bundle offerings with data at a good price point and marketing those to the correct client segment. Multiple payment options are key to this, i.e. customers can choose how they pay for their services and get the same value regardless if it is airtime, mobile money, credit card, Add2Bill, mobile operator loyalty points, vouchers etc. ■

Looking ahead: Technology, smartphones and data networks are growing. Content providers must incorporate smart technologies into their service offering.

Just as YouTube offers different video quality (360p, 720p etc), content providers should do the same to enhance the client experience. Applying more gamification mechanics into services could also stimulate usage and engagement on services.

South Africa, Nigeria and Ivory Coast are the markets to look out for in the digital space over the next few years, as they have shown the potential to grow and innovate across different aspects of the digital landscape.

Cloud Gaming can transform gaming for families, midcore gamers and hardcore gamers, as well as giving telcos the first mover and innovation advantage, retention amongst high-value customers and driving usage and revenue of data services on 5G networks. We hope to build on our success in Africa as we keep telling the AWG Cloud Gaming story and showcase our successes across the continent.

The regulatory environment across Africa is always changing. For example, in South Africa, digital services with video and gaming elements are required to classify and provide age restriction ratings on services based on the film and publication guidelines. While this is an ongoing process, it is certainly positive for customers where they can now see if content is suited for themselves or their

children.

We also need to ensure that customers are treated fairly in terms of engaging in digital services. So mobile operators and industry regulators will have policies in place to ensure customers are made aware of what they are subscribing to, and the cost of the service. For mobile operators, the customer experience/NPS score of customers is important. Ensuring customers have a positive experience with the services offered by a telco is paramount, and regulations and policies are put in place to ensure that happens.

Markets and consumers continue to evolve ever more rapidly. Outdated models for billing and delivery of VAS services are under huge pressure. The value proposition of services and their delivery to customers need to evolve. In addition, the reliance on airtime as a billing mechanism needs to change.

Available airtime in customers' airtime wallets continues to decrease. Mobile operators will prioritise core business services (voice and data) over VAS services going forward. Giving customers alternative methods of payment and affordable price points is critical. Lastly, it is paramount that customers gain value from the services they are subscribed to. This means that usage and engagement on services needs to increase. It is vital that both mobile operators and companies like AWG, who they use to deliver digital services, build in mechanisms to ensure more customers are using and consuming the content on a more consistent basis.



Todd Ashton,
vice president and head of
Ericsson South and East Africa

Ericsson is on a mission to empower a sustainable and connected Africa as part of our 'Africa in Motion' strategy. During our 100 years' presence in Africa, we have built wireless networks for every generation – from early 1G networks to the first advanced 5G networks. Over the past year, the number of our employees in Africa has reached 2,300. We now have 23 offices across the continent, and we support technologies from 2G to 5G.

This year, we partnered with Econet to modernize its radio access network (RAN) and mobile core network in Zimbabwe in preparation for 5G implementation.

We have also joined forces with Tigo to introduce 5G in Tanzania and upgrade the existing 4G network, leveraging the latest energy-efficient products from the 5G Ericsson Radio System portfolio. We recognize the importance of rural connectivity and have been actively working with our partners to implement solar-powered rural site solutions in some African markets, including Benin, in partnership with MTN Benin. Finally, we initiated a collaboration with Free Senegal to establish a proof-of-concept project to provide connectivity to schools using fixed wireless access (FWA) as part of our 'Connect To Learn' program, a global initiative that aims to bridge the educational divide.

With a rising demand for 5G capabilities on the continent, a major opportunity we have identified is the similarity in the air interface between 4G and 5G that allows for a more efficient spectrum repurpose compared to any other technology. We are currently

focusing on helping communication service providers (CSPs) reuse the 4G spectrum for 5G deployments through the Ericsson Spectrum Sharing (ESS) solution.

Another opportunity that helps drive sustainability in the ICT sector is lowering the energy consumption of communication networks. This enables CSPs to cut down on costs and reduce emissions. Our E-band solution has the lowest energy consumption and size pair in the industry, so we are well-positioned to meet this requirement.

We also see a great opportunity in boosting digital skills across Africa. We have partnered with Smart Africa Digital Academy to enhance critical digital skills of senior public sector officials; between November 2022 and January 2023, we ran virtual workshops on emerging technologies for 100 policy makers and regulators from 19 African countries.

One facet that presents a challenge as well as an opportunity is addressing the escalating capacity requirements of mobile networks in many African markets that comes with the exponential growth of mobile data consumption. Long-haul microwave links are ideal for high capacities at longer distances and fit well with the need to connect rural areas of the continent.

The main trend dominating the ICT sector in Africa is increasing 5G adoption. According to the Ericsson Mobility Report, there were 7 million 5G subscriptions in sub-Saharan Africa in 2022. The study projected this number to grow to 150 million by the end of 2028, accounting for 14% of total connections. Last year marked a turning point as 3G adoption began to decline for the first time. We predict that 4G will be the main contributor to new connections for the next five years.

Mobile money has become a life-changing tool across the continent, providing access

to safe and secure financial services but also to energy, health, education, and employment opportunities.

According to GSMA data, 2022 witnessed a 17% growth in the adoption of mobile money and a 21% hike in transaction volume in Africa. The number of mobile money accounts on the continent hit 781 million, and our Mobile Money Open API service powers 80 million of them. Meanwhile, transaction value reached US\$836.5 billion in 2022.

While we have witnessed impressive market developments in recent years, Africa's ICT sector still has significant growth potential compared to leading economies. According to a 2022 report by the International Finance Corporation (IFC), Africa has the lowest number of internet connections of all inhabited continents – only 22%. The lowest adoption rate is in rural households due to high illiteracy levels, low income, lack of access to financial services and the concentration of economic activity in urban centres. Many rural areas also lack reliable mobile connectivity. In 2022, only 40% of the adult population in sub-Saharan Africa were connected to mobile internet services.

Expanding robust mobile coverage into rural areas is a priority for Africa that will bring multiple benefits – from improving the population's

access to vital services to driving digital and financial inclusion and opening new economic opportunities. Additionally, the continent's digital transformation has given rise to a thriving e-commerce ecosystem. Online marketplaces and platforms have gained popularity, enabling businesses and consumers to connect and transact digitally. FinTech innovations have also flourished, providing digital payment solutions, lending platforms, and insurance services.

Cross-border cooperation has been an important enabler of our activities in Africa, as it helps us develop locally relevant solutions tailored to the needs of the market and bring 5G networks to new countries. This year, we strengthened our partnership with AXIAN Telecom; we are helping modernize the company's infrastructure in Madagascar and Tanzania to increase network capacity and offer faster and more reliable connections.

As part of our efforts to support education in Africa, we continued mapping school connectivity in 35 countries by the end of 2023 within the framework of our three-year global partnership with UNICEF. The collaboration supports the UN's Giga initiative, a global program led by UNICEF and the International Telecommunications Union (ITU) that seeks to connect every school to the internet. ■

Looking ahead: We envision our technologies shaping the future of mobile networks in Africa, driving connectivity, bridging gaps, and enabling the digital revolution. Connectivity will continue to play a critical role in uplifting the continent's economy. We foresee the growth in 5G and 4G network coverage becoming a major catalyst for innovation, connection, and opportunity for Africans everywhere.

We aspire to contribute to extending affordable broadband access to over a billion individuals in

Africa to bridge the digital divide, enable them to reap the full benefits of the digital economy and help achieve the UN's Sustainable Development Goals (SDGs).

We will also continue to leverage digital technology to drive financial inclusion, which is an essential element of advancing economic development on the continent. Another focus area for us is reducing time to market and flexibility in launching services for our customers towards their subscribers.



Renaud Ganascia,
sales director for Africa,
Digital Virgo

Africa has provided a lot of opportunities for Digital Virgo and as we finish 2023, we are assessing our future on the continent. While we have set the standard for francophone countries and integrating direct carrier billing into local markets, our eyes are set firmly on anglophone and polyglot countries. These provide opportunities not only to integrate DCB and mobile money payments, but also local content that appeals to telco customers. As Africa is developing its 4G and 5G connectivity, the desire for better and more diverse content is key for customer growth and retention.

One of the biggest opportunities is that we're no longer limited to just mobile devices. The growth in the use of smart devices that easily connect to the online environment means that there are more chances to develop digitalization of content for telecom operators. Content must now be adaptable to all smart devices giving customers more chances to access it. The second-screen phenomenon has been widely acknowledged in numerous studies, as an increasing number of individuals use mobile devices while watching television. According to the latest Nielsen report, 50% of Generation Z has already adopted this practice as a habit.

This trend is particularly important in the sports industry. To align with this evolving landscape, we've already implemented significant enhancements to our gaming offerings: more content, but also additional features and enhanced connectivity.

Television is a fascinating field that is available on a variety of devices. Telecoms operators are bringing more premium offerings to their customers, and we're helping them by providing services like Veedz.tv, which give users full control over their broadcasts and offer intelligent, dynamic content for an enhanced user experience. Our ability to combine international and local content plays a key role in distribution success. Our partnerships with media leaders such as TF1 and Canal+ are key to unlocking the power of international content and personalizing local content.

When it comes to content monetization in Africa, one of the most significant challenges lies in the region's unique characteristics, notably language and regulations. The key to overcoming these challenges lies in our 'glocal' approach, which involves staying closely connected to the realities faced by telecom operators and their customers, while also facilitating the entry of merchants into the African market. Adapting content to align with the technical, cultural, and legal specificities is at the forefront of our partners' and clients' concerns, needs, and expectations. ■

Looking ahead: As we look to 2024, our aim is to expand the availability of our TV offerings to a broader range of countries. Simultaneously, we are committed to adapting our content and services to meet the needs of local markets, which includes incorporating local languages for fibre customers. This strategic approach is designed to assist telecom operators in their efforts to enhance customer

growth and retention.

The demand for content continues to experience exponential growth each year, and telecom operators stand at the forefront of this trend. Our fundamental mission is to support them in maximizing the opportunities presented by these ever-evolving trends, with a particular focus on creating scalable, sustainable, and optimized ecosystems.

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