Ethiopia's Digital Economy

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CATALYZE ETHIOPIA: Market Systems for Growth (MS4G)

Ethiopia's Digital Economy

Sector Research Ethiopia

We review the digital economy landscape in Ethiopia and cover in this report the scope of services offered, companies involved, activity indicators, stand-out cases, funding trends, cross-country comparisons, policy environment, current market size, and near-term growth outlook.

- **Background and Context**: A review of the Ethiopian digital economy landscape reveals close to 570 businesses offering a wide range of digital finance, e-commerce, transport, sector-tech, and ecosystem services. We find that most companies operating in the digital space are still largely sub-scale in nature and that very few 'digital disruptors' have emerged so far with widespread market acceptance, a large customer base, and meaningful revenue generation. This should change very soon, however, as major sector reforms are addressing numerous past constraints—poor network connectivity, high telecom costs, restrictive regulations, limited funding, skills shortages—while broader policy conditions are now much more conducive for the emergence of truly disruptive Ethiopian companies using digital platforms to transform traditional ways of doing business in agriculture, industry, transport, and other services. In this context, we take stock of the current state of Ethiopia's digital economy, identify key themes and trends, assess the impact of recent 'game-changers' in this field (new policies, new entrants, new products), and offer our views on both the overall outlook and sector-specific prospects.

- **Service offerings**: Several notable features stand out in Ethiopia's current digital economy landscape: (1) The finance, ride-hailing, e-classifieds, and media segments have been comparatively more successful at building large digital user bases and ensuring monetization; (2) conventional e-commerce, delivery services, and those focused on agricultural, health, and education related offerings have been slow to gain traction; (3) public sector entities and e-government services turn out to be among some of the economy's most successful 'digital disruptors', often with private partnerships, and; (4) B2C business models tend to attract the most entrants though these present more demanding operational and execution challenges in the local context. Current service offerings are also marked by high geographical concentration, a narrow set of technology types, and still limited levels of forex generation.

- **Activity Indicators and Stand-out Cases:** Despite the common view that 'Ethiopia has virtually no digital economy to speak of', we find some impressive digital use cases are already firmly in place. For example, banks are handling around half a million customer transactions via digital channels every day and Birr 260bn (~8% GDP) on an annual basis; CBE has for the first time this year seen more of its customer transactions (62%) taking place via

BOX 1: A Snapshot of Ethiopia's Digital Economy

Source: Cepheus Capital Research; 2020 Estimates.

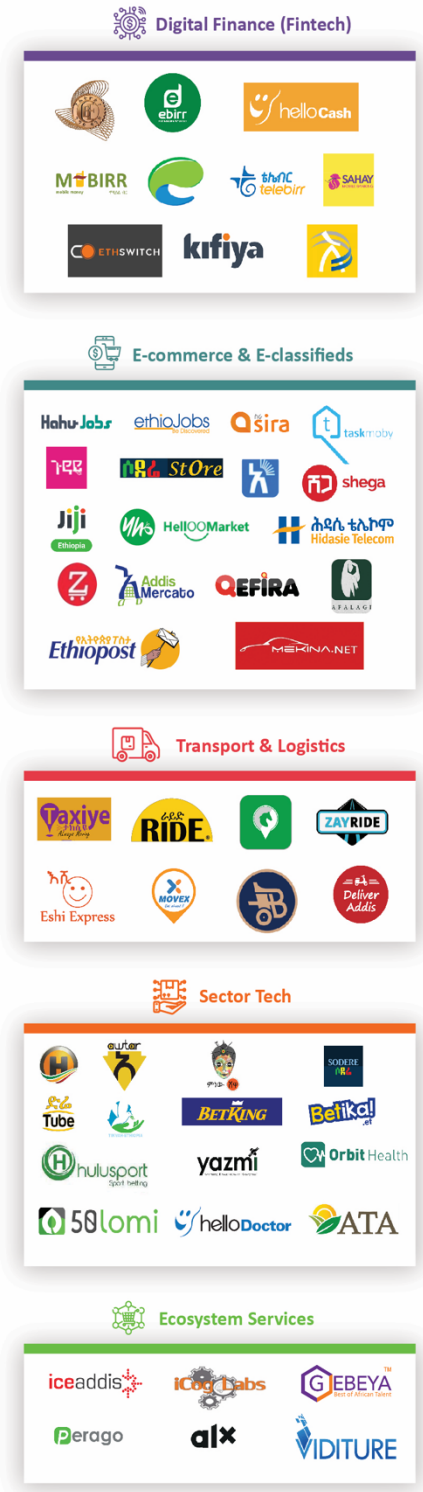
digital channels rather than at bank counters; 'micro-credits' in the form of airtime advances by Ethio Telecom are providing 2.2 million users with Birr 1.1bn in loans each month; Ethiopian Airlines is seeing half of its ticket purchases in Ethiopia now carried out by customers using its mobile app and/or website; the ride-hailing industry is providing an estimated 90,000 rides on a daily basis; the largest e-classified firms are processing thousands of paid on-line posts monthly; and some leading Ethiopian digital media brands and/or social media users are attracting and monetizing user bases that have grown to over a million active subscribers and/or 25 million views on a monthly basis. The recently launched *telebirr* mobile money service has registered over three million customers over just a few weeks and—if well executed—is on the verge of transforming person-to-person transfers, merchant payments, and potentially 'micro-credit'. In other areas, the scope of digitally enabled *local* product offerings now includes group savings, insurance, crowd funding, 'gig' platforms, music/video streaming, dating services, and online betting. Across multiple fields, companies with expanding customer bases and high revenue potential are emerging, and 30 such businesses are profiled in this report.

- **Cross-country standing:** Despite the recent progress, the scale and scope of Ethiopia's digital disruptors remains quite limited when seen from a cross-country perspective. Companies in other country contexts have shown mass-market adoption by providing exemplary solutions to some well-known consumer 'pain points' and/or business bottlenecks. In the Ethiopian context, this would mean, among other things, offering simplified solutions for making payments (P2P, P2B, P2G, G2P); addressing inefficient/costly food value chains; improving weak information bases faced by buyers and sellers of goods/services (jobs, homes, personal goods, industrial items); enhancing localized offerings for services (education, entertainment); and solving bureaucratic aspects of government services (utilities, IDs, permits).

- **Funding environment:** Only around $40mn in funding has been provided by equity investors in the digital economy space, and an additional $20mn provided by donors. Average funding size has been very limited and Ethiopia's share of global flows remain trivial. We expect funding resources to expand substantially in the coming years, to as much as a quarter billion dollars over the coming years, as four distinct pools of funders—government funds, foreign investors, donors, and local funders—take a much more active role.

- **Policy Issues and Regulatory outlook:** While a wide range of regulatory obstacles held back growth in digital economy in the past, many industry players now describe the policy environment as the best it has ever been. Recent/upcoming reforms are addressing the nation's overarching digital strategy, e-transactions, e-commerce, and commercial/investment laws. Still, some sector-specific constraints remain while broader macro challenges (fx access/convertibility) also pose obstacles that merit attention and action if the true potential of Ethiopia's 'digital disruptors' is to be realized.

BOX 2: Digitial Disruptors Across Key Sectors



Source: Cepheus Capital Research

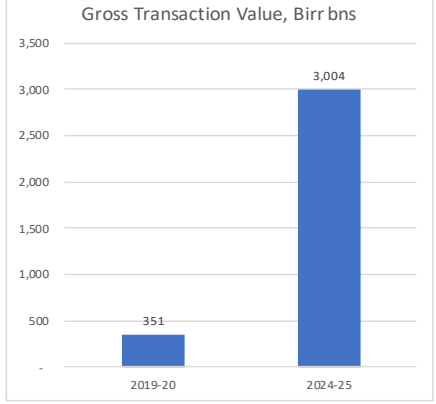
- **Market size—current level and near-term outlook**: We estimate Birr 350bn in gross transaction value (equivalent to 10% of GDP) and Birr 5bn in net revenue for Ethiopia's main set of digital economy companies as of 2020. By our calculations, the size of digitally transacted economic activity will show a nine-fold increase by 2025, reaching just above Birr 3 trillion or 39% of GDP. The largest revenue pools will likely remain within digital finance and telecom services, followed by marketplace platforms, transportation, and digital media. Several companies in the digital finance, ride-hailing, and digital media space could see Birr 1bn valuations in a few years' time, by our estimates. If seen as a stand-alone company and using current valuation metrics of comparable cases, *telebirr* is likely to be Ethiopia's first 'digital disruptor' to reach dollar unicorn status (with a $1bn-plus valuation) well before 2025.

- **Overview and Conclusions**: The digital economy space in Ethiopia is clearly entering a "liftoff phase" thanks to a mix of both macro and ecosystem drivers (fast growth, rapid urbanization, growing internet penetration, improving networks, and better data affordability), improved public policies, and rising numbers of private entrants and funders. Widespread digitization across the economy's key sectors should yield benefits of macroeconomic significance by removing long-standing payment problems, by reducing high transaction and trading/intermediation costs, by activating previously unused or underutilized labor/other resources, by boosting sales volumes/channels for both small and large businesses alike, and by raising foreign exchange earnings potential. Maximizing all these gains will not be automatic, however, and as highlighted by many in the sector both the private and public sectors—including entrepreneurs, investors, and policymakers—have a vital role to play in each of their respective domains**.** Most notably, for the Ethiopian context, we see the most urgent priorities in: (1) making further progress on still remaining digital infrastructure, affordability, and policy constraints; (2) addressing the mismatch between Ethiopia's biggest GDP components (agriculture, construction, wholesale/retail trade) and the current set of digital service offerings (mainly in finance, transport, and personal services/entertainment); (3) channelling fin-tech offerings (the largest digital economy sub-segment for the foreseeable future) much more heavily towards credit offerings rather than just payment solutions; (4) orienting digital enterprises towards activities that capture and further boost the sector's vast foreign exchange potential; and (5) ensuring that the public sector's dominant role in key digital sub-segments (telecom, finance) is subjected to competitive conditions and advanced in ways that create open platforms and partnerships for private enterprises in those same activities or in closely related sectors.

Note: This report has been produced through a collaboration between Cepheus Capital and USAID CATALYZE Ethiopia: Market Systems for Growth (MS4G). The extensive data, inputs, and insights provided by a number of stakeholders are gratefully acknowledged in Appendix 1.

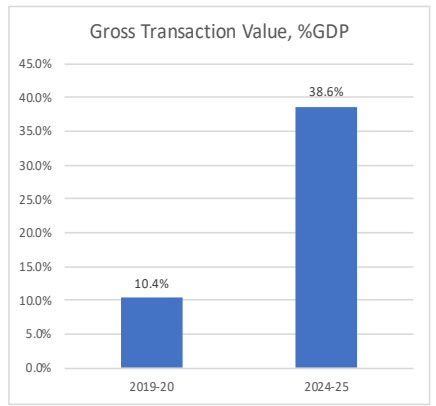
June 28, 2021

BOX 3a: Digital Economy Market Size & Forecast



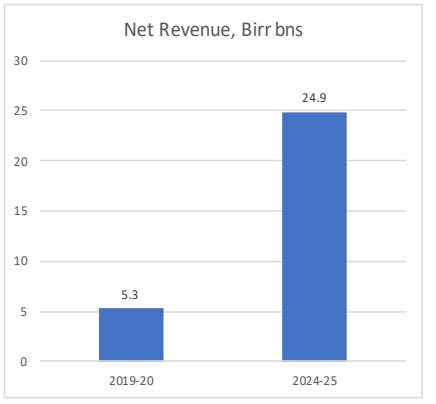
Source: Cepheus Research estimates and projection

BOX 3b: Digital Economy Market Size & Forecast



Source: Cepheus Research estimates and projection

BOX 3c: Digital Economy Market Size & Forecast



Source: Cepheus Research estimates and projection

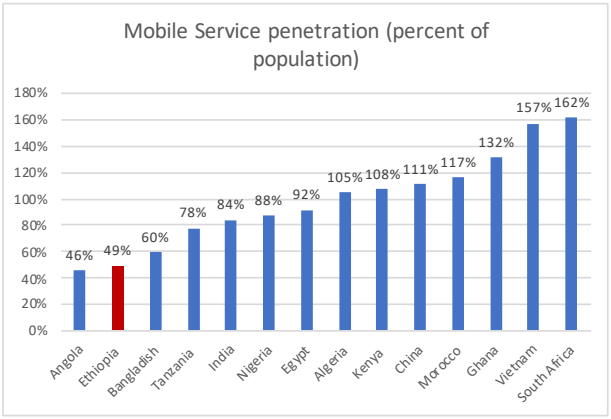
SECTION 1: Ethiopia's Digital Economy—Context and Background

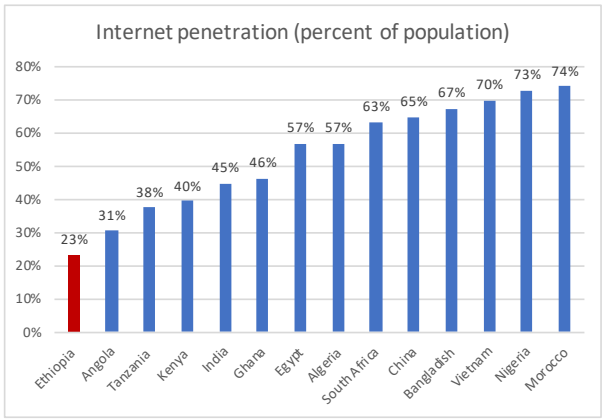
Key points

- **Until very recently, the enabling conditions for the emergence of a digital economy in Ethiopia were largely absent, given very limited telecom infrastructure, very high costs of network access, and very low digital connectivity rates among the general population.**
- **Reforms enacted over the past few years have substantially altered the digital infrastructure and connectivity landscape: telecom coverage has now reached 95 percent of the country by population and 85 percent by geographical area, mobile usage has reached 52 million subscribers, and internet access is available to 25 million users. Telecom costs have been cut by 50-80 percent, boosting affordability: for example, 1MB of data usage now costs just 6 Birr cents from 30 cents before.**
- **Looking ahead, the enabling environment for the digital economy is set to improve sharply across multiple additional dimensions thanks to high level policy/strategic initiatives, regulatory reforms, telecom market liberalization, enhanced competition, and measures addressing skills gaps. Macro trends—rapid economic growth, urbanization, and ease of doing business reforms—are providing a further boost to the digital economy ecosystem, while the COVID pandemic and recent currency conversion have accelerated the on-going transition to digitization even further.**

The fundamental conditions needed for a vibrant digital economy—good network connectivity, affordable access costs, and conducive policies—have until recently largely been missing in the Ethiopian economy. Due in part due to a telecom sector without any competition and limited infrastructure investment, telecom connectivity indicators were until recently very low, often ranking among the lowest levels within Africa and even globally (Figure 1.1). At the same time, costs were comparatively high when seen in a cross-country context and especially in relation to average per capita incomes (Figure 1.2).

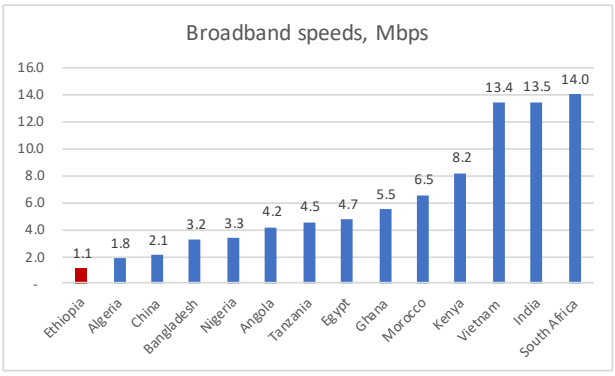
Figure 1.1a: Telecom Infrastructure Comparisons

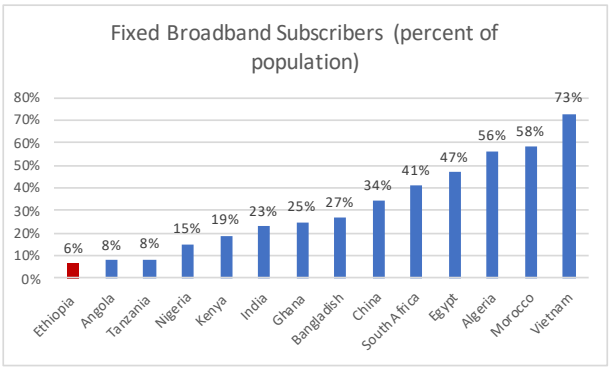


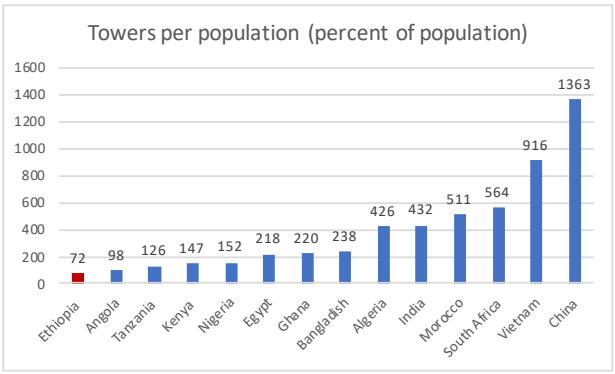


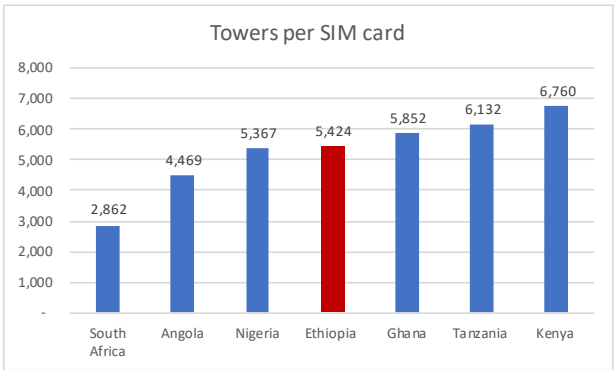
Source: Ethio Telecom, Dataportal, internetworldstats.com, Tellimer Research, Towerxchange.com, cable.co.uk

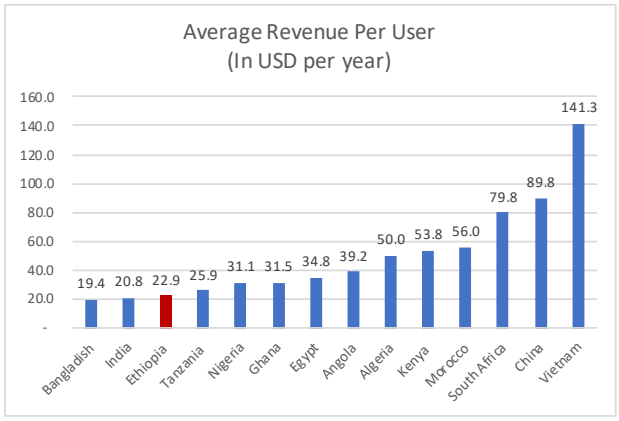
Figure 1.1b: Telecom Infrastructure Comparisons

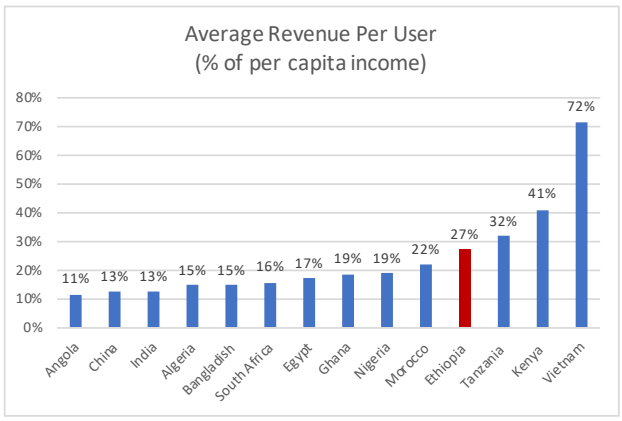


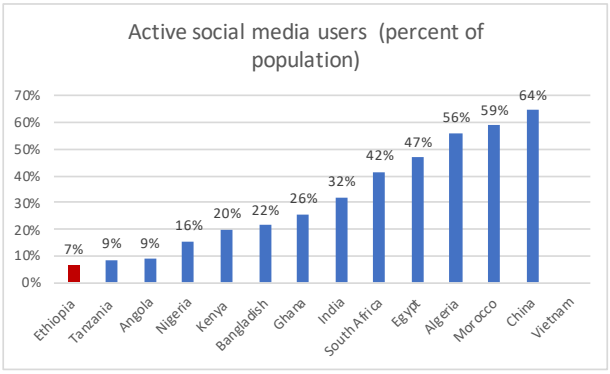


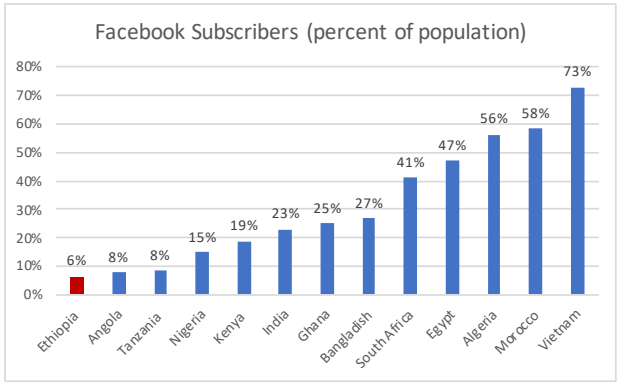






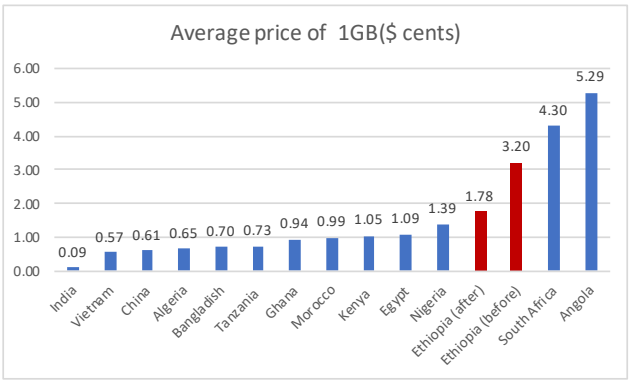


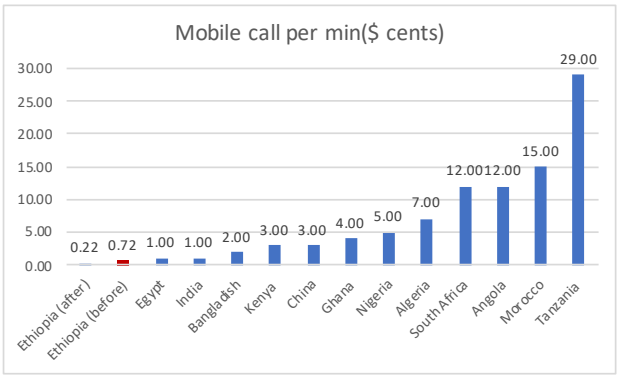




Source: Ethio Telecom, Dataportal, internetworldstats.com, Tellimer Research, Towerxchange.com, cable.co.uk, Inclusive Internet Index.

Figure 1.2: Cost of Mobile Voice and Data

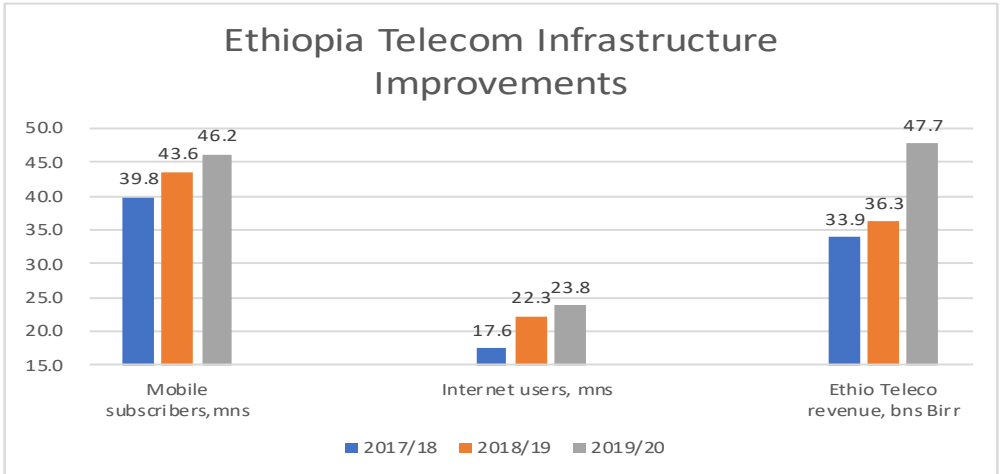




Source: World Bank, www.numbeo.com

Over the past few years, telecom coverage and connectivity has improved substantially, to the point now that a sizeable number of adult Ethiopians—though still not a majority—now have reliable telecom connectivity. There are now 52 mn telecom subscribers as of December 2020, which after accounting for inactive accounts and subscribers with multiple lines, we estimate translates into around 45 million unique active subscribers. Internet usage has reached 23mn or around half of the adult population. This places Ethiopia fifth in Africa in terms of subscribers as a share of the population. On phone ownership, around 44 percent of mobile phone owners now hold a smartphone, which translates into 23mn people currently operating with a smartphone, which is up significantly over the past few years. Mobile handset costs are down significantly, even in Birr terms, with the lowest priced smartphones now widely available for Birr 4,000 ($95) while simple 'feature phones' can be purchased for as little as Birr 400 or just $9. The number of 3G users is now extended to most parts of the country, while 4G LTE services are expanding well beyond Addis Ababa, already reaching 33 cities to date and soon to cover around 90 major cities and towns across the nation. Given these recent trends, and its low starting position, Ethiopia is now among those countries showing the fastest rates of growth in mobile phone usage and internet adoption.

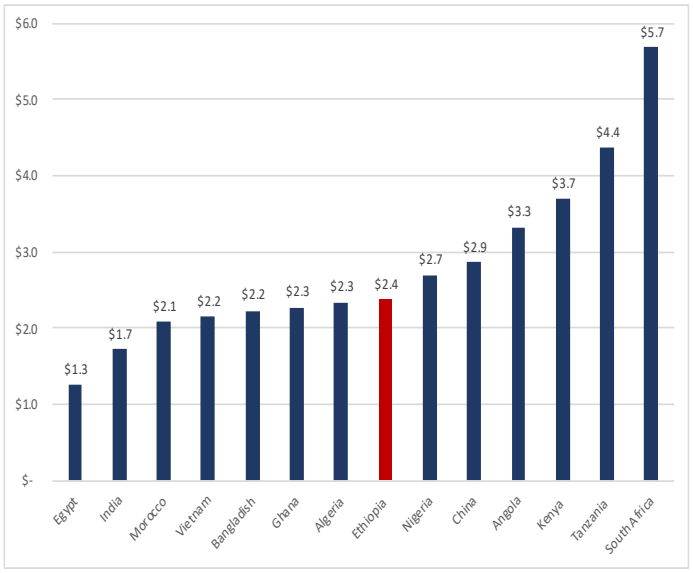
Figure 1.3: Ethiopia Telecom Infrastructure Improvements



Source: Ethiotelecom

With respect to telecom costs, a dramatic cost reduction effected in the last year has boosted accessibility well beyond levels that would have been possible by just the infrastructure improvements. Telecom voice costs have fallen from 72 Birr cents per minute to 22 Birr cents per minute, while data access costs have declined by 80 percent from 30 Birr cent to 6 Birr cents (Figure 1.4). Monthly package offerings from the telecom company are reducing these costs even further: for example, a monthly 1GB data package service now costs just Birr 75 or $1.78. This is a sharp reduction from costs that were as high as $3 -$4 for 1GB of data a few years ago, and $2.4 about a year ago. With the latest price reductions, Ethiopia's data costs are in line with—or even below—what is seen in many large African economies, including for example 1GB data costs of $2.3 in Ghana, $2.7 in Nigeria, $3.7 in Kenya and $5.7 in South Africa (Figure 1.5).

Figure 1.5: Data Cost for 1GB across Countries (USD)



Source: Inclusive Internet Index available at https://a4ai.org/affordable-internet.
Data for Ethiopia appear to reflect early 2020 status, and are thus higher than latest figures reported in Figure 1.2.

Figure 1.4: EthioTelecom Price Reduction, in cents

Source: Ethiotelecom

Relative to per capita income, costs of digital access have fallen considerably though still slightly above what is being considered a desirable international benchmark, namely the '1x2' target of ensuring that 1GB of data costs should not exceed 2 percent of per capita income.[1] The cost of a gigabyte of data was 5.5 percent of average monthly per capita income before Ethio Telecom's 2020 price reductions but is now 2.3 percent of

[1] This is based on the 'Alliance for Affordable Internet' benchmark which seeks to ensure affordable global internet access, where 1GB of mobile broadband data is priced at 2% or less of a country's average per capita income.

average per capita monthly GDP (using Birr 75 per GB of data and a monthly per capita income of Birr 3,287 based on an estimated 2020-21 GDP of Birr 4,142bn).

Looking ahead, the ecosystem needed for a vibrant digital economy is coming into place across multiple dimensions. In this connection, digital economy diagnostics work by the World Bank, Mckinsey, and Oxford University have underscored a number of common 'foundational pillars' needed for a well-functioning and inclusive digital economy. These reviews have highlighted the fundamental pillars as including: infrastructure connectivity, digital platforms, digital financial services, digital skills, and appropriate national strategies.

Figure 1.6: The Foundations or Pillars for the Digital Economy: Various Perspectives

World Bank	Mckinsey	Oxford: Digital Pathways
1 Digital Infrastructure	1 National ICT Strategy	1 Infrastructure
2 Digital Platforms	2 Infrastructure	2 People
3 Digital Financial Services	3 Business environment	3 Finances
4 Digital Entrepreneurship	4 Financial capital	4 Policy/Regulation
5 Digital Skills	5 ICT skills base	

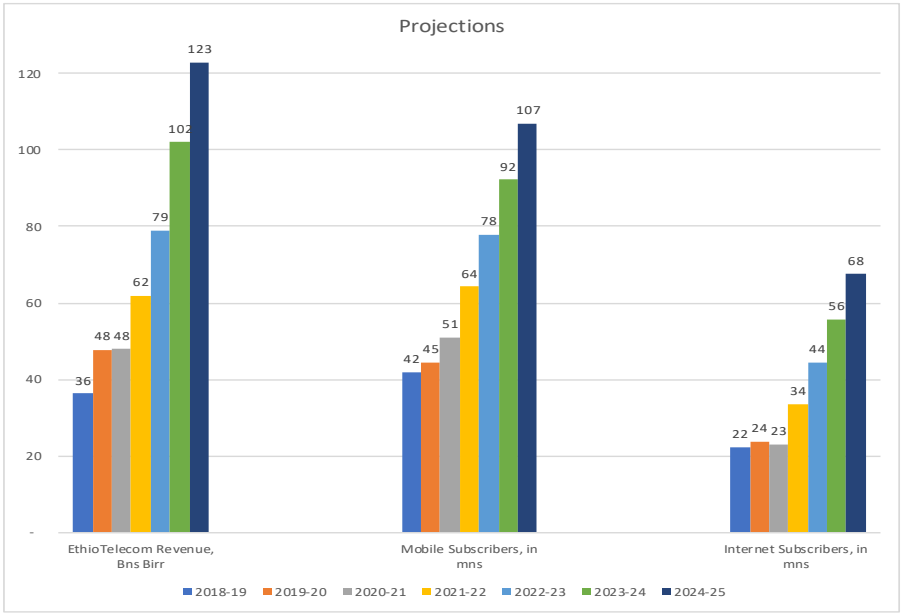
Source: World Bank (2020) "Digital Economy for Africa: Country Diagnostic Tool and Guidelines", Mckinsey's (2014) "Lions Go Digital" and Oxford University's (2020) "Digital Pathways for Inclusive Growth".

On all aspects of ensuring key digital economy pillars, Ethiopia has already put in place or is in the process of setting the main foundations for the growth, expansion, and inclusivity of its digital economy. In particular:

- **Coverage and connectivity**: Telecom infrastructure coverage is set to expand rapidly with very large investments by the incumbent operator, whose capacity for further capital expansion will be considerably enhanced once it sells a 40 percent stake to a foreign/strategic investor in the second half of 2021. The recently announced entry of Safaricom into the market will also further add substantial investments into network capacity, further boosting access and network availability. Reflecting these considerations, telecom subscriber numbers are expected to reach 102 million in three years and 150 million in five years, or roughly a doubling and a tripling of the user base by 2024 and 2026 respectively relative to current levels (Figure 1.7).[2] Given trends and targets in expanding broadband access, 4G data access will very shortly be expected to be the norm in all high-population urban areas. Meeting the Ten Year Development Plan would also imply a much improved physical infrastructure base over the coming years, including plans for nationwide mobile/data access, additional data centers, and more electronically delivered government services. A recent Digital Foundations project of the World Bank will also support some of these near-term targets including: (1) reducing the cost of 1GB of data to 2 percent of per capita income; and (2) broadening 4G coverage by population to 60 percent.

[2] See World Bank's 'Digital Foundations' report and projections provided therein (page 101) by consulting firm Roland Berger. The scope for future growth is seen from the low penetration rate (subscribers/population) in Ethiopia, which stands at under 50 percent while it is already at 118 percent in Kenya (52.2 million subscribers versus 44.2 million total population).

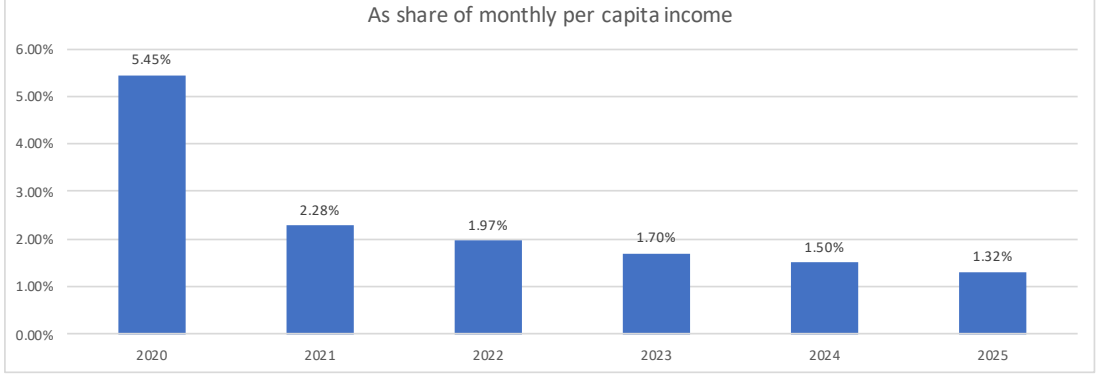
Figure 1.7: Projections for Telecom Network Coverage and Activity



Source: World Bank Digital foundations project paper, per Roland Berger estimates.

- **Costs and affordability:** As noted above, Ethiopia's voice and data costs are presently at or below many African peers in absolute terms but somewhat above some targeted goals for ensuring inclusive telecom access. The entry of new operators will work to keep prices low and possibly see them trend lower on account of more competitive pressures. On this basis, it is reasonable to expect some moderate decline in user costs in three to five years time. At the same time, even without much of a reduction in the absolute price levels, data prices will still fall relative to per capita income: we expect data prices will fall to 1.5 percent of per capita income by 2025, from the 5 percent level seen just last year. Thus, for large segments of the population, the cost of data access will no longer be a deterrent to using digitally-enabled services.

Figure 1.8: Data Cost (1GB) relative to monthly per capita income



Source: Ethio Telecom and Cepheus Projection

- **Digital Disruptors:** Thanks to large recent infrastructure improvements and policy reforms, an expanding pool of entrepreneurs and companies is entering the digital economy space to provide platforms, tools and channels that support economic/business activity across the economy's traditional sectors—agriculture, industry, and services. The scope of service offerings seen to date is covered in Section 2, while profiles of some stand-out cases are highlighted in Section 3. For cross-country perspective, a snapshot of notable digital offerings with strong potential applicability in the Ethiopian context is provided in Section 4.

- **Funding**: While funding for companies in the digital economy space has been very limited—even trivial—so far, a mix of public, private, foreign, and domestic funders is beginning to enter the digital economy space and thus helping incubate, grow, and deepen the scope of service offerings of new and established companies. Recent developments and near-term prospects in this area are addressed in Section 5.

- **Policy and regulatory reforms:** Ethiopia's infrastructure and network connectivity improvements are taking place as part of a broader reform initiative that is addressing the liberalization and modernization of key segments of the economy. Most notably, a new "Digital Ethiopia 2025" Strategy has laid out key targets to: (1) improve existing infrastructure (via telecom liberalization, deregulation of the mobile phone market, upgrading of key national networks, and ensuring universal access); (2) develop key enabling systems (National Digital ID); (3) deepen national use cases (e-commerce and e-government services) and (4) strengthen selected vital components of the digital ecosystem (digital literacy, skills development, incubator services, etc). By sector, the Digital Ethiopia 2025 strategy singles out four priority sectors, namely agriculture, manufacturing, IT services, and tourism. In parallel with this over-arching policy document, initiatives directly aimed at improving the digital economy have been launched through new laws and proclamations covering the financial sector, e-commerce, and e-transactions—topics covered in greater detail in Section 6.

- **Market size and outlook:** Reflecting the joint impact of the various positive trends noted above—in infrastructure, affordability, new entrants, funding, and policies—the digital economy is expected to grow well beyond the rates of growth in nominal GDP over the next five years. In Section 7, we attempt to estimate the current starting position (market size) across 13 key segments as well as the likely trajectory up to 2025, while also identifying the largest segments and sub-segments both by estimated gross transaction value and by net revenue.

- **Conclusion:** A concluding summary of key findings, observations, and expectations is presented in Section 8, including our views on the most urgent tasks and priorities for all stakeholders involved—including policy-makers, businesses, and investors.

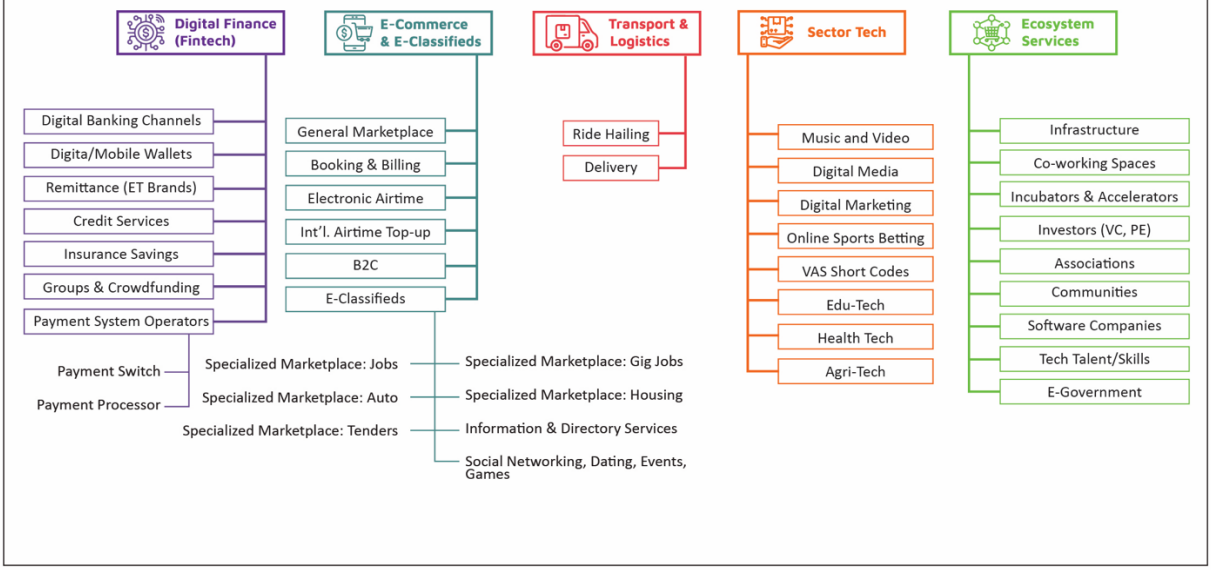
SECTION 2: Service offerings and companies involved

Key points

- **Our review of the digital economy landscape in Ethiopia reveals around 570 businesses across five segments that includes finance, e-commerce, transport, sector-tech, and ecosystem service providers.**
- **Only around 30 of these firms have truly scaled up, however, showing the vast number of companies whose growth is held back by either their own weak use cases, poor execution capabilities, inappropriate business models, limited funding sources, regulatory obstacles, social/cultural norms, or some combination of the above.**
- **Among our notable observations, we find that: (1) the finance, ride-hailing, e-classifieds, and digital media segments have been comparatively more successful at building large user bases and ensuring monetization; (2) conventional e-commerce, delivery services, and those focused on agricultural, health, and education related offerings have been slow to gain traction; (3) public sector entities and e-government services turn out to be among some of the economy's most successful 'digital disruptors', often with private partnerships; and (4) B2C business models tend to attract the most entrants even though these present more demanding operational and execution challenges.**

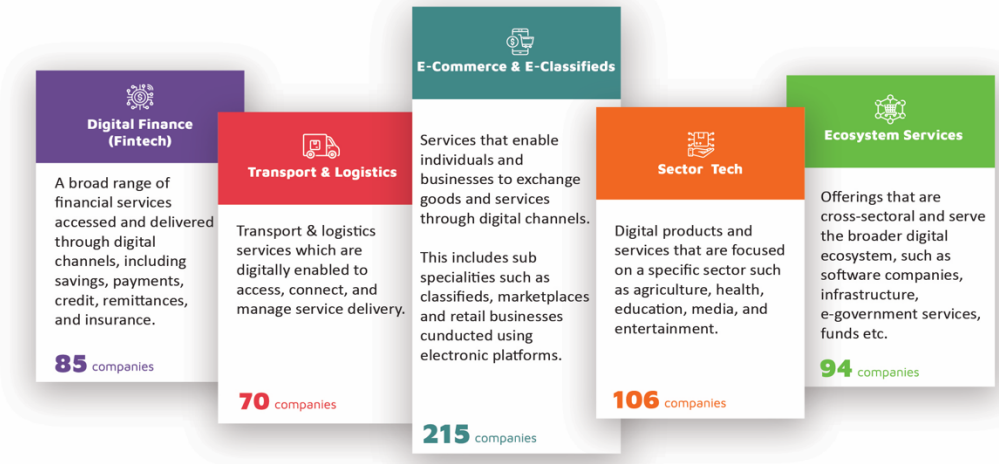
Ethiopia is seeing a fast growing pool of companies launching various digital services that are changing the traditional ways of doing business. Such 'digital disruption' is being introduced to and applied across all three traditional sector categorizations of the economy—namely agriculture, industry, and services. For convenience, we nonetheless find it useful to categorize Ethiopia's Digital Economy through 5 verticals or segments as shown below (Figure 2.1), namely: (1) digital finance; (2) e-commerce and e-classifieds; (3) transport and logistics; (4) sector-tech; and (5) ecosystem services.

Figure 2.1: Ethiopia's Digital Economy – Service Offerings and Companies Involved.



Source: Cepheus Research Survey

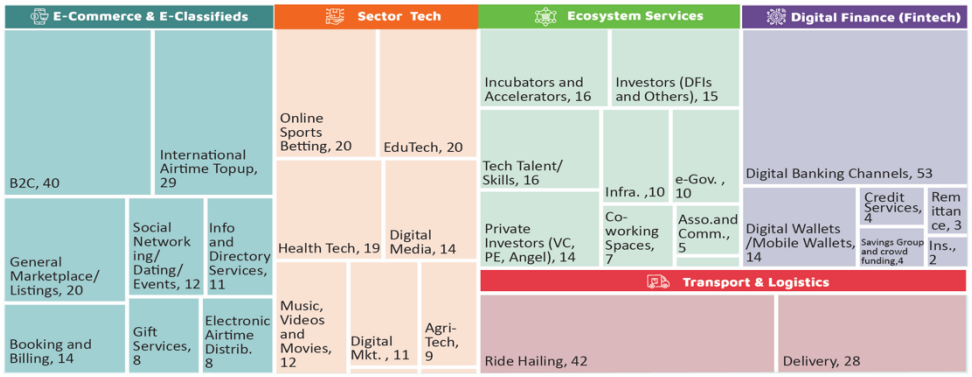
Figure 2.2: Major Digital Economy Segments: A Broad Breakdown of the 570 Companies/Products



Source: Cepheus Research survey of Digital Economy companies and products. While not expected to be exhaustive, this list covers the vast majority of players and products currently in the market.

Our landscape review of digital economy companies shows around 570 products and services across the five main segments. By number of firms involved, 'E-Commerce and E-Classifieds' represents the largest portion of the digital economy, at nearly 38 percent of the total number of companies/products. This is followed by 'Sector-Tech' representing around 19 percent of companies/products, 'Ecosystem Services' at 16 percent, 'Digital Finance' at 15 percent, and 'Transport and Logistics' at 12 percent. This is not an exhaustive list, but is believed to cover the vast majority of active providers of digitally enabled products and services in the country.[3]

Figure 2.3 Ethiopia's Digital Economy Landscape By Numbers



Source: Cepheus Research survey of Digital Economy companies and products.

[3] Software companies, a sub-set of the 'Ecosystem' services segment, are not counted individually but represented as one group for the purpose of this compilation. Around 120 software companies are currently operating in Ethiopia based on our market research.

Digital Finance

Financial services provided through digital channels is one segment that has already seen wide-ranging change and customer adoption in the Ethiopian economy. To date, the main providers include the country's 17 commercial banks and the largest MFIs. The provision of 'digital finance' in this context has involved banks and MFIs facilitating a move towards digital channels (ATMs, POS devices, Internet banking, mobile banking) to provide services that were normally delivered via branch services and/or via traditional means (namely cash-in/cash-out and physical or cheque payments among individuals or between individuals and businesses).

Figure 2.4a: Digital Finance (Fintech)

Digital Banking Channels

1 Mobile Banking
2 ATMs
3 POS
4 Internet Banking

Digital/Mobile Wallets

1 Abay Be Deje
2 Amole
3 Awash M-Wallet
4 CBE-Birr
5 Coopay-Ebirr
6 Gizepay
7 HelloCash
8 Hi-Birr
9 Kacha Wallet*
10 M-Birr
11 OroCash
12 Sahay
13 Tele-Birr
14 Yaya Wallet*

Remittance (eth brands)

1 CashGo
2 Mela Pay (Kifiya)
3 MamaPays*

Credit Services

1 Airtime Credit
2 Amole*
3 HelloCash*
4 Qena Loans*

Pay

1 EthSwitch
2 PSS

Saving Group & Crowd Funding

1 Agar fund
2 Degafi
3 eQub App
4 Jamii One

Payment Processors

1 Flocash
2 MasterCard
3 Visa
4 YenePay
5 AlemPay*
6 AliPay*
7 ArifPay*
8 ChapaPay*
9 MelaPay*
10 PayWay Ethiopia*
11 SantimPay*
12 SmilePay*
13 SunPay*
14 WeBirr*

Insurance

1 Hibret Online
2 Le-Mobile

Selected Companies/Products

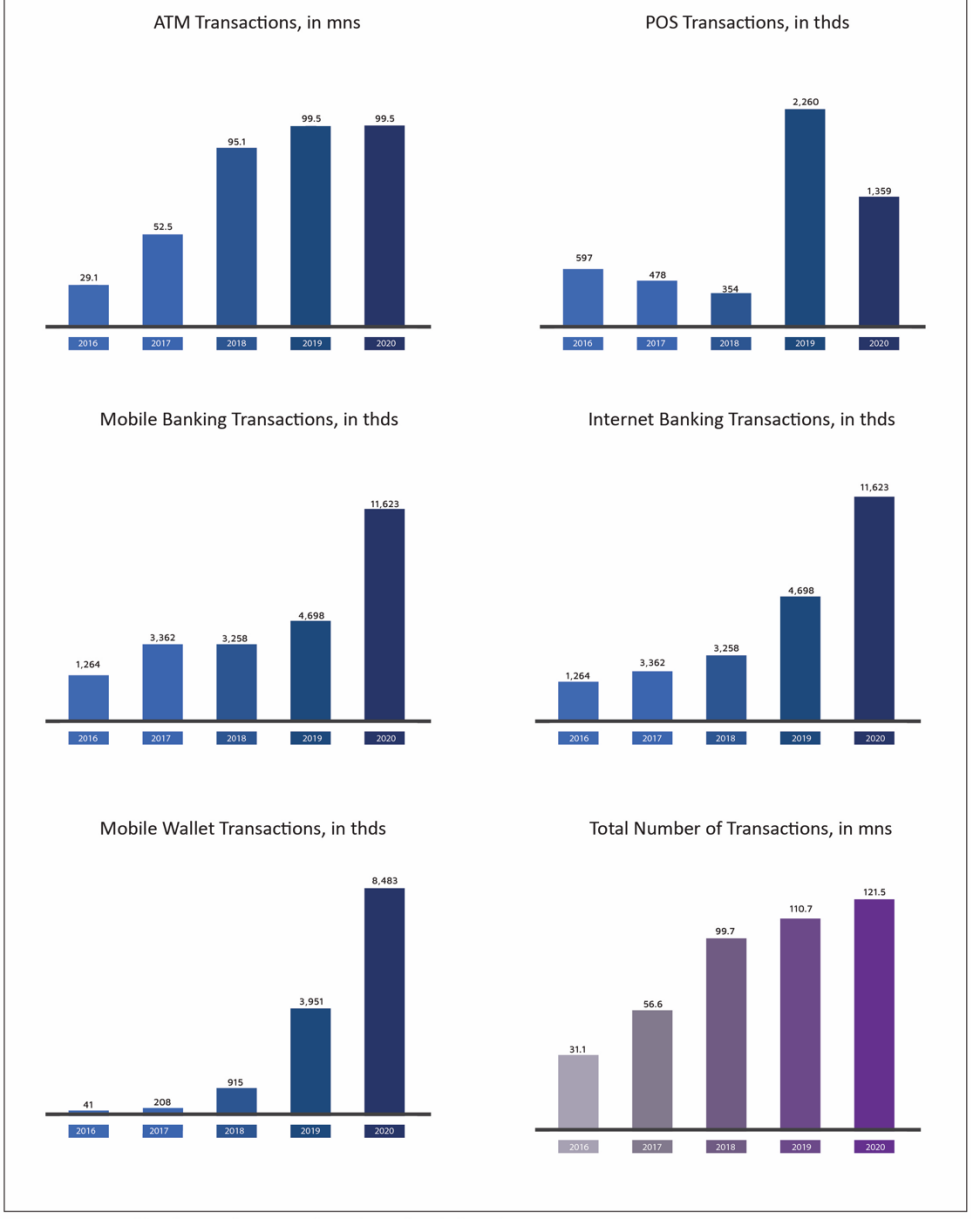
Source: Cepheus Research survey
**Companies under formation and/or recent start-ups.*

The use of digital financial services—even in the limited scope delivered so far—has improved somewhat the sector's physical proximity, speed, and convenience but not fundamentally changed the menu of banking services (savings, credit) offered by financial institutions. To be more specific, the use of digital financial services has—to date—largely centred around the addition for users of ATM, POS, and online banking options. Trends in these areas show significant growth, with the usage of ATM, POS, Internet banking having multiplied considerably—by a factor of 5x to 15x—in the last few years as summarized below (Figures 2.4b to 2.4f). These developments were aided in part by large investments by banks in digital banking offerings as well as by the establishment of a national switch company owned collectively by all banks (Eth Switch) that enabled inter-bank connectivity and allowed users from one bank to access the ATM/POS devices of another bank.

Mobile wallet services also grew rapidly in parallel, which help address outreach to a larger segment of the population. These mobile wallet services, which now number 12 in total, include bank-specific wallets (CBE's CBE Birr, Dashen's Amole) as well as others based on a consortium of banks or MFIs (Hello Cash and M-Birr). Around 10 million accounts are registered to date, and these wallets have mostly been utilized for person-to-person (P2P) payments, for making airtime purchases (which represented the largest share of activity in some platforms), and for social safety net payments. By number of accounts, we estimate that the largest market

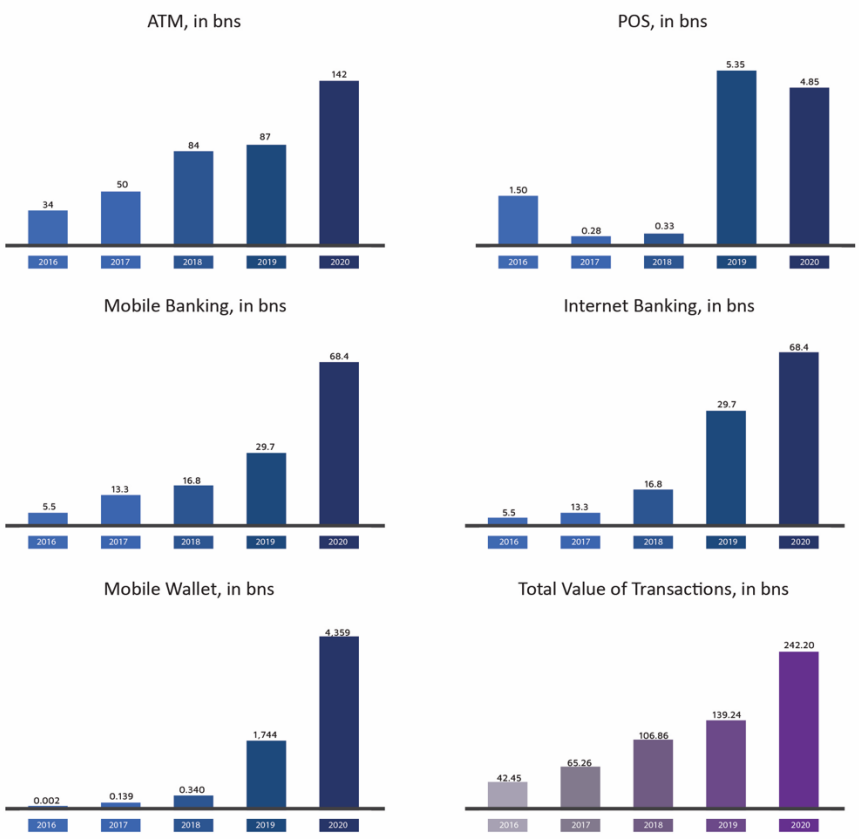
share—as of 2020—was held by CBE Birr, with 5.5 million accounts, followed closely by Amole (2.3mn accounts), M-Birr (1.8mn accounts) and Hellocash (1.7mn accounts). To date, the usage of these mobile wallets for Person-to-Business (P2B) payments has been limited, though some of the mobile wallets have made notable inroads in this respect, such as CBE Birr (e.g., for airline tickets, utilities, government services) and Amole (for payments to services such as DSTV subscriptions, stadium seats, transport services, entertainment events). To a certain extent, these wallets also presented their value proposition as savings channels for those with limited or no access to formal financial services.

Figure 2.4b: Digital Finance Activity Indicators – Number of Transactions



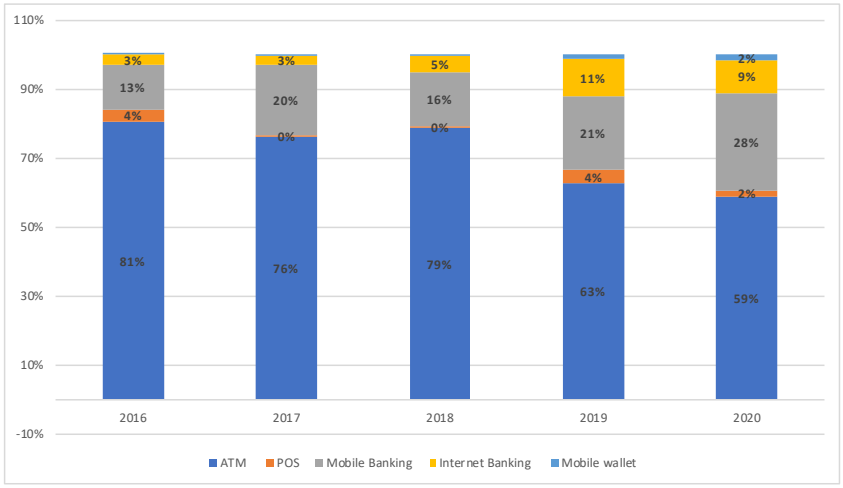
Source: NBE. Note: Mobile wallet transactions appear understated given information from industry sources.

Figure 2.4c: Digital Finance Activity Indicators – Value of Transactions (in birr)



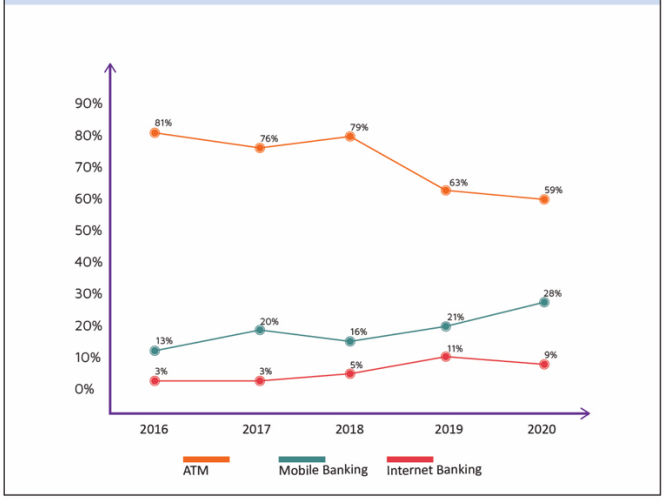
Source: NBE. Note: Mobile wallet transactions appear understated given information from industry sources.

Figure 2.4d: Composition of Usage of Digital Channels (% of total)



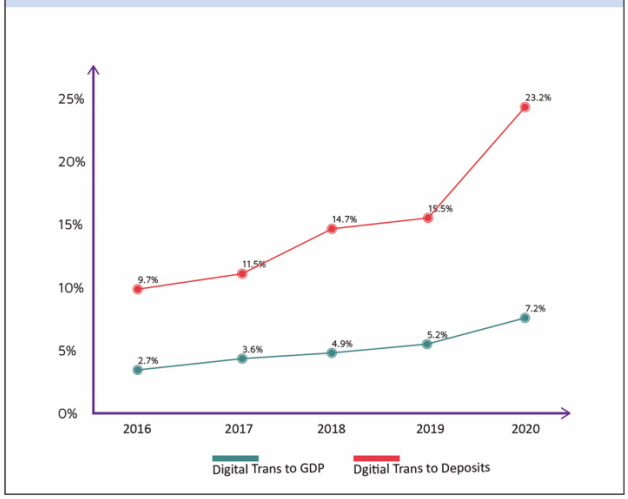
Source: NBE

Figure 2.4e: Digital Channels - Trends in Composition Over Time



Source: NBE

Figure 2.4f: Digital Transactions - % of Deposits, % of GDP



Source: NBE, NPC

Even with the above innovations, however, current digital financial services are notable for their limited and segmented base of users and very narrow set of product offerings. In particular, some of the limitations include:

- **Low Outreach**: The adoption of digital channels has been largely limited to the urban population and was mostly associated with the use of ATMs to make cash withdrawals. Nearly 50 percent of ATMs and 77 percent of POS machines, for example, are in Addis Ababa, and in proximity to bank branches.

- **Undeveloped merchant payment services**: Consumer to business payments (other than limited use of POS devices) remain rudimentary in many areas as cash continues to dominate most transactions.

- **Regulatory restrictions:** Non-bank service providers were required to partner with banks or MFIs and this limited the flexibility and growth potential of their operations.

- **Limited product use cases**: Usage of digital wallet accounts currently in the market has largely been limited to purchasing of mobile airtime and to a much lesser extent for Government (G2P) transfers.

- **Lack of payments inter-operability** among the various payment instruments and service providers also meant segmented user pools without an ability to obtain the benefit of much larger network effects. Thus, the customers of, say, CBE Birr, M-Birr or Hello Cash can easily make payments to other recipients within that wallet service provider, but not amongst themselves (from CBE Birr to M-Birr) and not to the accounts of customers in other banks (from M-Birr to another bank).

Looking ahead, with recent regulatory reforms, new and enhanced service offerings are expected across several segments of the financial services space, most notably:

- **Digital wallets by non-banks**: With the removal of the requirement to partner with banks/MFIs, non-banks can now enter the provision of mobile wallet services and work to build their own user base that can be offered a potentially distinctive and superior set of associated services. The *telebirr* offering from Ethio Telecom is among the first such product (following the new Directives) and is targeting the very large base of mobile users that are already its customer base. The new Directives allow others to join

the sector in setting up such digital wallets, though the challenges to doing so have now become much more formidable considering the sector's now largest players (telebirr, CBE Birr) as well as multiple pre-existing private competitors (Amole, Hellocash, M-Birr). The expectation that the new telecom license holders (Safaricom and potentially another foreign entrant) will be allowed to enter the mobile money space in a year's time further increases the number of competitors in this space. In this context, perhaps the only scope for new entrants to perform well in the wallet business is if they can create products with offerings that are truly distinctive from current norms—such as those that might be tailored to a specific demographic; bundled with other online offerings (ride-sharing, media, entertainment, etc); or linked to certain retailer programs, discounts, or other such financial incentives.

- **Non-bank payment system operators**: Again, with the removal of the requirement to partner with banks/MFIs, non-banks can now enter the provision of payments services in various areas such as for e-commerce sites, for merchant-based payment offerings and for the deployment of POS or POS-like networks as payment acceptance points. Specific examples of companies in this field will be those that enable local businesses and e-commerce sites to host a payment platform on their websites/applications (i.e. a connectivity to effect payment at 'checkout' by taking and processing a customer's bank account or wallet account information). Other payment providers could specialize in providing the physical gadgets or apps that easily accept payments at physical retail stores (via, for example, POS-like smartphones–or 'mobile-POS'– that accept payments via a dedicated software/interconnectivity).

- **ATM/POS network providers (non-banks):** The ability to engage in ATM and POS network provision, including supplying the physical machines, associated software, and day-to-day operations has also now been opened to non-bank providers. This can potentially allow firms to establish economies of scale in these activities, potentially simplifying ATM/POS management tasks for banks while generating fees for the companies involved.

- **Broadened product offerings:** The new directives also explicitly allow the provision of micro-credit and micro-insurance services, a major departure from past practice when these activities were reserved solely for established banks, MFIs, and insurance companies. Though implementing regulations in this area are not yet out, this can potentially open up a new set of channels for credit provision—likely to be capped up to certain limits—for both consumers and SMEs. Based on the current directive, however, such credit or insurance services are only expected to be allowed in collaboration with an existing financial institution. This means that 'fin-tech' firms will not be able to fund credit or insurance from their own funds (or own balance sheet), and instead their role is thus likely to focus on areas such as new customer acquisition, matching borrowers/lenders, digitalizing applications, streamlining credit approval processing, and facilitating loan disbursements.

The expectations for the above set of digital financial services, typically dubbed as 'fintech', are especially high in the Ethiopian context (with close to 15 new entrants planning to join the sector), but it is worth recognizing what such service providers can and cannot realistically do. Most notably:

- **Fintechs can broaden the number of wallet holders and boost widespread use of such accounts, but a major expansion in this area will be dependent on two key 'infrastructure' requirements being adequately in place:** (1) the availability of acceptable Digital IDs, and (2) the ability to establish a wide agent network or leverage upon some pre-existing physical network. On identificiation, current systems for satisfying Know-Your-Customer (KYC) requirements remain cumbersome, and will hold back the growth of fintech associated digital offerings without reliable and secure ID systems becoming available (especially for credit). Current efforts in this area—such as the biometric IDs now being rolled out in

Addis Ababa—will thus need to be broadened and expedited; a full nation-wide rollout may not be in place until 2022 or possibly 2023. Regarding agent networks, achieving mass scale in this area has been a challenging exercise for many existing players and it remains to be seen if new entrants can sufficiently address the complex logistical and incentive schemes needed to make agent networks achieve large scale, high volumes, and active usage.

- **Fintechs can substantially ease current payment difficulties, but this will be subject to inter-operability across a financial system that will soon include entities such as commercial banks, MFIs, mobile wallet providers, and payment service providers,** By providing more payment channels and more available payment points, fintechs make payments much easier and increasingly frictionless for all categories of transactions (P2P, P2B, B2P, P2G, G2P). For example, Ethio Telecom's newly launched telebirr is soon expected to offer cash-in/cash-out points at tens of thousands of Agent locations as it capitalizes on its existing nationwide network of airtime sellers/distributors. Similarly, payment service provides will make a greater availability of digital payment points at retail outlets and will increasingly be available on all e-commerce sites. However, for all such users/services, while customers can interact within their network (CBE Birr customers to other CBE customers), the expected inter-operability across all bank accounts and digital wallet providers will remain indispensable to truly allow fintechs to thrive and digital payments to take-off. This inter-operability exercise is currently a work in progress, namely under EthSwitch, and is likely to be in place only in 2022 allowing all accountholders and wallet holders to send/receive funds from any account/wallet-holder in the system.

- **Fintechs can potentially reduce transaction costs, but probably not by very much except in the area of remittances:** By spreading costs of a large user base, fintechs potentially have the ability to offer lower unit costs for services such as person-to-person payments, bill payments, and remittance services. However, it is worth noting that many such services were until recently already free at Ethiopian banks, thus limiting the relative attractiveness of fintechs relative to traditional providers (banks/MFIs). In the past year, banks have begun to charge for certain basic services, and this may provide scope for fintechs to remain competitive if the trend continues. In other areas, one possible segment where fintechs can maintain price competitiveness may be with respect to remittances where sender costs of 5 to 8 percent can be and have been undermined (in other markets) through the entry of fintech firms. Some recent remittance-specific product offerings are addressing and may provide indications of more to come in the fintech enabled remittance space: for example, Amole has partnered with VISA to enable local merchants to receive payment from abroad, CashGo has partnered with Bank of Abyssinia in launching a remittance service, and BelCash is launching a new remit-to-pay service (MamaPays) where remittances are channeled directly to merchants/payees.

- **Fintechs can potentially improve credit to consumers and SMEs—but this will be confined to mostly low-value amounts**: The ability to provide micro-credit, even if only in partnership with traditional financial institutions, offers fintechs an opportunity to: (1) simplify loan origination/approval processes; and (2) target and specialize in specific borrower segments not typically addressed by banks. Unlike in some other markets, fintechs will not be able to lend on their own account (and on their own balance sheet), but could become the conduit and intermediary between banks/MFIs and borrowers. As 'middlemen', some typical likely roles to be played in the Ethiopian context could be in: (1) processing applications in simplified (digital) ways, via say online forms and app-based information collection; (2) using specialized means of credit assessment; (3) delivering approved funds quickly to associated accounts/wallets; and (4) helping handle collections and repayments. With these roles, fintechs have the potential—as seen in many other markets—to address specific borrower groups such as SMEs seeking quick-disbursing working capital funds, borrowers seeking very short-term loans (1-7 days,

typically not available at banks), or consumers seeking low value and short-term loans. However, with the Directives currently limiting fintech services to '*micro*' credit/savings/insurance products, only low-value amounts (perhaps up to Birr 20,000 or 50,000) are likely to be entertained under such services.

E-Commerce and E-Classifieds

The e-commerce space in Ethiopia, like elsewhere, consists of two somewhat distinct sub-segments covering Marketplaces (buying/selling among individuals and merchants) and B2Cs businesses (where the merchant's platform is mainly engaged in direct product sales to the consumer). We identify about 21 providers in the General Marketplace segment and 40 in the B2C segment; other notable sub-categories and companies identified are in remittances (29), jobs (29), real estate (18), booking/billing (14), games/social/dating (12), auto sales/rentals (11), information directories (11), tenders (8), gift services (8), digital airtime distribution (8), and on-demand/'gig work' sites (7).

Figure 2.5: E-commerce & E-classifieds

General Marketplace/ Listing

1 AfroTie
2 Asbeza
3 Besh Gebeya*
4 Buy Sell Ethio
5 Delala
6 Eshemeta
7 Ethio Shopping
8 Fetan Gebeya
9 HelloMerkato
10 HuluGram
11 Jiji
12 Kotett
13 Mirt Mirt
14 Qefira
15 Sell & Buy Addis
16 Sheger
17 Shilngie
18 Yet Ale
19 Zaremart
20 Berbera Market
21 UBuy ET

Gift Services

1 Bole Gifts
2 Abyssinia Gift
3 Angel's
4 BeteSeb
5 Diaspora Gifts
6 Lagerbet sitota
7 Muday Gift Shop
8 Surprise Habesha

Booking & Billing

1 AddisPass
2 Derash Billing
3 Engida Travel
4 Gojo Rooms
5 GuzoGo
6 HelloBill
7 Kifiya
8 Lehulu
9 Payway Ethiopia
10 Room Roaming
11 Uni-Cash
12 Yeha Rooms
13 YeneGuzo
14 Kelal Bus Ticket

Info & Directory services

1 2Merkato
2 Addis Map
3 Addismap
4 Adrasha
5 Afalagi
6 E-Adrash
7 Ethiotrack
8 Helloinfo
9 Huleinfo
10 Startup Ranking
11 Mall ET

B2C

1 Agafari
2 Addis Mart
3 Addis Mercato
4 Addis Souq
5 AddisBer
6 Africa E-shop
7 Asbeza
8 Balesuk
9 Brundo
10 Brundo Spices
11 Deamat
12 DuBuy*
13 Dumbulo
14 EQA Tera
15 Ethio Mereb
16 Ethio Suq
17 eWTP (Alibaba)*
18 Fetanmart
19 FloMart
20 GUZOMART
21 HellooMarket
22 HelloShop
23 Hulu Express
24 Jumla
25 Kedame gebeya
26 Kikuu
27 Merkato Online
28 NileRing
29 Online-Merkato
30 Qinash
31 Shega
32 Sodere Store
33 Utopia
34 YeneStore
35 Zembil
36 ZMALL
37 Sukmarket
38 Alert Square
39 Sheba Shopping
40 Shero Meda.Com

Electronic Airtime Distrib.

1 Eth. Postal serv.
2 Ethiotele App
3 EVD Distribution
4 Hello
5 Hidasse Telecom
6 Highlight Trading
7 Kifiya
8 Yimulu

On Demand & GigJobs

1 Adarash
2 Be singularity
3 GoodayOn
4 Kech
5 Keteme
6 Taskmoby
7 TERRA

International Airtime Top Up

1 Al Ansari
2 beCharge
3 Bookeey
4 Bossrevolution
5 DentWireless
6 Ding
7 Disashop
8 ENET
9 EthioRemit
10 eTranzact
11 Gulfboc
12 Kazang
13 ManGo Wallet
14 MobileRecharge
15 NTPayments
16 orange Top Up
17 Poundland
18 PrepaidUnion
19 Rebtel
20 Recharge
21 Reloadly
22 Senditoo
23 SiftMobile
24 Sisalpay
25 Tranglo
26 Upay
27 Utransto
28 VIP
29 WorldRemit

Tenders

1 2Merkato
2 awash tenders
3 Beta Tenders
4 E-Tender
5 Ethiopia market
6 Habesha tender
7 Mob Tenders
8 Reporter Tenders

Auto

1 Addis Market
2 CarGebeya
3 eMekina
4 Ethio car
5 Hulu cars
6 Mekina
7 Mekina Mender
8 Mekina Zone
9 Mekinaye
10 Sheger auto
11 Sheger cars

Specialised Marketplaces

Jobs

1 22boleJobs
2 Addis Jobs
3 Dereje
4 Employ Eth.
5 Etcareers
6 Ethiojobs
7 Etsework
8 Everjobs
9 Ezega
10 Freelance Eth.
11 Geez Jobs
12 Hahu Jobs
13 Hello Sera
14 Instant Sys.
15 Jobs in Eth.
16 JobsETH
17 JobVacancy
18 JobWeb Eth.
19 Just Jobs
20 Milkta
21 Mjobs
22 Nile Jobs
23 QSIRA
24 Reporter Jobs
25 Sira App
26 Freelancer
27 Y.E.S
28 Z Freelancers
29 Zion Jobs

Housing

1 AddisGojo
2 Ahadu Property
3 Betoch
4 Betoch Gebeya
5 Elfegn
6 EnterEthiopia
7 Ethio Betoch
8 EthiopianHome
9 Ethiopian prop.
10 Gojo property
11 Homes in Addis
12 Keys to Addis
13 Property.ET
14 Real Addis
15 RealEthio
16 RentInAddis
17 Tiya Properties
18 Zegebeya

Social, Dating, Events,Games

1 Ahun
2 Enhid
3 Ethiolocate
4 Jebena Dating
5 Komjo dating
6 Kukulu
7 Kum neger dating
8 Lomi dating
9 Meda chat
10 MN Ale Addis
11 Shegerbuzz
12 Fantasy Games Ethiopia

Selected Companies/Products

StOre
kifiya
Jiji Ethiopia
ethioJobs Be Discovered
ሕዳሴ ቴሌኮም Hidasie Telecom
Hahu Jobs
Qsira
QEFIRA
taskmoby
Addis Mercato
AFALAGI
shega
HellOOMarket
Ethiopost የኢትዮጵያ ፖስታ

Source: Cepheus Research Survey
**Companies under formation and/or recent start-ups.*

The e-commerce space is characterized by the following notable features, challenges, and prospects:

- **Most active names**: The main service providers in the B2C segment include HellooMarket, Addis Mercato, Zmall, Shega, Qefira, Jiji, and AfroTie.

- **Product offerings**: A review of the three most popular e-commerce sites shows the most popular offerings were, in rough order: personal wear and fashion items (clothing, shoes, bags); electronics (mobile phones, laptops, accessories); leather products; cosmetics; and home accessories.

- **Electronic Airtime as a Product**: Perhaps the largest 'e-commerce' product with already widely established usage is the sale of Ethio Telecom airtime, via digital channels, by a large pool of private distributors who have partnered with Ethio Telecom. While conventional distributors provide 'scratch cards' to allow users to top up their airtime, more recently private distributors (including Yimulu distributors and Electronic Voucher Card (EVD) distributors) provide digital airtime that is sold using mobile banking and mobile wallet channels. The distribution of such airtime via digital channels is a substantial business that is likely in the Birr 3-4 billion range per year, considering Ethio Telecom voice/data sales of near Birr 40bn last year and commissions of 5-15 percent provided to distributors (and subsequently shared with sub-distributors, retailers, individual sellers).

- **Use of Social media**: Many formal businesses are increasingly using social media channels—most commonly Telegram, Facebook, and Instagram—to reach out to and engage with new and existing customers. Such platforms provide a much wider audience, and some established e-commerce sites are also using certain platforms for simplified customer experiences—such as the use of Telegram by HellooMarket for its ease of use and additional functions like bots for processing orders.

- **Informal operators**: A significant number of informal 'e-commerce operators' are seen in this segment, reflecting small stores and SMEs seeking to expand their presence and sales via online and social media channels. Through the use of Telegram, Facebook, Instagram, and other such platforms, many such retail outlets (including service providers such as beauty salons, photo studios) and SMEs are seen advertising their products/services to attract customers and build their brand. Some informal traders without even a physical retail presence are also known to engage with their customers entirely online, especially for certain niche products such as branded cosmetics, fashion items, and the like.

- **Digital marketers**: Aiding the use of social media has been the emergence of more than a dozen marketers specialized in placing digital ads for small and large businesses alike. Such digital marketing businesses can deal with and pay the big global platforms (Facebook, Instagram, etc) directly, simplifying the processes involved for small retailers and merchants choosing to place ads on such global platforms.

- **Challenges**: The E-Commerce space in Ethiopia is still in very early stages, facing several regulatory and infrastructure limitations. The total addressable market is also very small due to still limited urbanization (just 20 percent of the population), low average incomes (around $1,000 per capita), and high delivery costs (usually Birr 50-100 per delivery which can make up a high share of the average product purchase). Moreover, one of the challenges facing the E-Commerce B2C sites is the need to integrate three components vital for a successful operation: warehousing, delivery, and payments. Until now, the digital payment ecosystem has been very limited, mostly limited to cash on delivery or bank transfers, and very limited options to pay directly through the website or the app of a service provider. Another key challenge facing operators in this space is the need for cashflow/working capital, as this business has a very large upfront investment to penetrate the market and sustain long enough to build a loyal customer base. In this context, the opening of the e-commerce sector to foreign investment could potentially bring international players into the ecosystem with the necessary long-term funding, operational experience, and the technical skills which are largely still under-developed in the current market.[4]

- **Outlook and Opportunities**: Conventional e-commerce remains very small in size, with an estimated gross transaction value of Birr 84mn or $2mn (see Section 6), and even the largest companies in the field

[4] The 2020 Investment Law states indicates that e-commerce is open to foreign investment, given that the prohibition of wholesale/ retail activities to foreign investors explicitly excludes "electronic commerce" under those two activities (Part Two, Article Four).

processing only about 50 transactions or less on a daily basis. Given the small base, growth prospects are high for the existing players. Improving logistics services, including by private delivery companies as well as by strengthened Ethiopian Postal Service courier services (as highlighted in Ethiopia's Digital Ethiopia 2025 strategy) will also provide a further boost to the sector. The entry of foreign e-commerce providers can also potentially become a 'game-changer' within this segment. Even so, the overall size of the market is—for the foreseeable future—likely to remain a very small share of total retail sales given still low penetration of modern/retail shopping forms and still low average incomes; even in South Africa, for example, e-commerce is only 2 to 3 percent of total retail sales despite its much higher incomes and more hospitable logistics/payment/warehousing ecosystems.[5] One relatively untouched segment within e-commerce is the export of niche products to global markets, for which several initiatives are currently underway including Ethiopia's entry into the Alibaba Electronic World Trade Platform (eWTP). As of April 2021, a process of screening eligible Ethiopian SMEs to access this program—and thus be hosted on the Alibaba platform for export sales to China and globally—has been started with the initial focus on companies that provide processed coffee, leather goods, textiles, garments, and precious stones

E-Classifieds have been among most successful digital businesses, due to the simpler nature of operations involved and strong use cases. Notable features of the e-classifieds landscape are the following:

- **Specialization**: Within the E-Classifieds subcategory, we find the areas showing strong user bases tend to be specialized sites like job boards and vehicle or real estate listings. These specialized market places tend to perform better than all-in-one market places. These platforms also involve a comparatively lower amount of management and operational complexity, and are free from some of the heavy operating costs associated with facilitating payments or fulfilling orders. Furthermore, a majority of the marketplace sites tend to offer their service free of charge for the end user while generating revenue from ads and/or service fees paid by the advertising and/or corporate clients.

- **Challenges: '**Gig platfroms' that match individuals with specific work assignments (ranging from simple housework to say graphic design or software programming) face challenges in regulatory requirements, a lack of reliable/consistent service providers, and the predominance of informal matchmaking alternatives. In some cases, regulations are also restrictive as current rules require that a matchmaking agency itself hold a competency certificate for each job category it offers.

- **Outlook:** Despite some of the challenges involved, there is a huge untapped potential for 'gig marketplaces' as one observes many mismatches whereby businesses struggle to find skilled and qualified labor while at the same time many skilled/usable resources remain underemployed. There are some startups (Taskmoby, Goodayon, Keteme) that have launched products that would help to bridge this gap and bolster the gig economy; a global freelancer website, *freelancer.com*, for example hosts many Ethiopian software developers, programmers, translators, and architects on its website, thus providing more higher-skilled offerings for prospective users/employers. Recently, a 'Freelancing, Outsourcing, Gigs' or 'FROG' Taskforce led by the Jobs Creation Commission is working to enable widespread provision of business process outsourcing services as well as the use of freelance services in both highly skilled areas (software, legal, consulting) as well as in contractor or 'micro-tasks' such as in cleaning, security, and artisanal works. With greater awareness and regulatory reform, such companies and initiatives can potentially make a significant impact in better facilitating the usage and deployment of the untapped or under-utilized skilled labor within the economy.

[5] Data on South Africa from Renaissance Capital, "South African Retail: Can SA e-commerce reach global levels?" May 2021.

Transport & Logistics

The transportation and logistics segment includes mainly ride-hailing companies and delivery services and is among the more successful group of digital disruptors seen in the market. There are several dozen companies already operating in this space (Figure 2.6).

Figure 2.6: Transport & Logistics

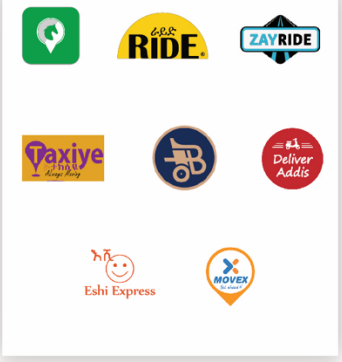
Ride Hailing

1	Adarash Taxi	22	Movex
2	Addis Ride	23	Pick Me Rides
3	Adwa Rides	24	PickPick
4	Afrina Ride	25	Polo trip
5	Alem Pay	26	RIDE
6	Axum Ride	27	Ring Taxi
7	Biza Ride	28	Rush
8	Catch	29	Seregela
9	Dallol	30	Share Me
10	E-Gari	31	Shuffer
11	Easy Trip	32	Sun-Pick
12	EASYRide	33	Swift
13	ETTA	34	Taxiva
14	Feres	35	Taxiye
15	Fetan-Rides	36	Tribe
16	GoFlex	37	Trip
17	Hello Taxi	38	Wekil taxi
18	Lift	39	Weye
19	Ligaba	40	ZayRide
20	Lole Ride	41	Ze-Lucy
21	MACAFEL	42	Zebra Rides

Delivery

1	Across Express	15	Magic Express
2	Ahunnnu	16	Megebia
3	Balderasu	17	Mesob delivery
4	Che Delivery	18	Moteregnaw
5	Dasher Delivery	19	Movex
6	Deliver Addis	20	Sebile Fruit
7	Derash Express	21	Share Me
8	EAT ADDIS	22	Sheger Express
9	Elfegne	23	Telalaki
10	EMS	24	Tikus Delivery
11	Eshi Express	25	Tolo Delivery
12	Go Delivery	26	We Deliver
13	Hud Hud Express	27	Yetem Delivery
14	Lole Delivery	28	Camel Cargo

Selected Companies/Products



Source: Cepheus Research Survey

Notable features of this segment include the following:

- **High user base and adoption:** Companies like Ride, Feres, and Zay Ride are among the most successful digital companies capturing a significant user base and almost mainstream adoption within the capital city. With comparatively simpler operational complexity and a strong use case, ride-hailing has become one of the digitally-based businesses attracting many entrants. In terms of technology, the main providers use a combination of a mobile app and a 4-digit telephone short code for assisted booking via a call centre operator. A large share of usage by riders actually tends to be done via phone based bookings rather than directly through the app, revealing some limitations to a fully digital service delivery based on apps and location-based identification.

- **Positive disruption:** The new digital model was a significant disruptor of the pre-existing 'contract' or 'lada' taxi market, cutting prices by as much as half, and bringing many more drivers and users into the market. Also, it brought a standardization to the taxi service industry and streamlined the service in a way only a digital disruption could have done. It has also opened the way for women to work in a sector that was formerly almost untouched by women drivers, allowing them to share in the benefits of this new gig economy. One ride-hailing service, Seregela, for instance relies on only women-based drivers, as is common in some other Middle Eastern and global markets.

- **Various business models** are adopted within the sector, including the use of third-party vehicles, a fleet model consisting of mainly company-owned cars, and a hybrid model involving drivers effectively leasing cars for a certain period for eventual ownership after settling the vehicle's loan obligations.

- **Challenges:** Relative to average incomes, ride-hailing services still present high costs and thus limits its widespread adoption and high-frequency usage even in urban areas.

- **Outlook:** The sector could potentially expand into adjacent sectors, as seen in other countries; for example, food/grocery deliveries, courier services, and pooled user groups.

Sector-Tech

These vertical covers business activities utilizing digital tools, channels, and platforms to deliver services across various traditional sectors such as media, heath, education, and agriculture. Within this space, we find that digital media is among the most successful digital business cases, along with sports betting, and telecom based value added services (VAS shortcodes). At the same time, digital and/or technology solution providers to companies in the education, health, agriculture sectors have been emerging but appear to be showing more limited uptake.

Figure 2.7a: Sector Tech

Music & Videos

1 ArifZefen
2 Avetol*
3 Awtar Media
4 Bana
5 Bellema
6 Hope
7 Minew-Shewa
8 Nile Streams
9 OTV
10 Shekla
11 Sodere
12 Zema

Digital Media

1 Addis Insight
2 Addis Zena
3 Addis Zeybe
4 Aterira
5 Digital Habesha
6 Dire Tube
7 Enhid
8 G-Media
9 Ke-Tsenat
10 Linkup Addis
11 Seena Ad
12 Sewasewe
13 Shega Media
14 Tikvah-ET

Digital Marketing

1 Abyssinia
2 Aligo Digital
3 Cloud Ethiopia
4 Kabo Media
5 Krinfud Digitals
6 MelaTop
7 Online Comm.
8 Seena-ad
9 Summer Media
10 TEDCLICK
11 Wazema

Online Sports Betting

1 Abyssinia Bet
2 Anbessa
3 AxumBet
4 Bet 251
5 Bet-King
6 Betika
7 Blen
8 Bravo Bet
9 Ethio
10 Fan 11
11 Galxy
12 Gihon
13 Glxwin
14 Gmit Bet
15 Habesha
16 Harif Sport
17 HuluSport
18 Sheger Bet
19 Vamos
20 Afro Bet

Edu-Tech

1 6killo
2 Accelrated
3 ashewa
4 Fetena
5 Hahu
6 Haleta
7 I-tutor
8 Kuraztech
9 Langobot
10 Lesan
11 NEbab
12 SeEd
13 Sewasewe
14 Temari Bet
15 Temari NET
16 TIBEB
17 Yazmi
18 Yehow
19 Yehulum
20 E-fanos

Selected Companies/Products








Health Tech

1 50 Lomi
2 Allenatech
3 Avion
4 Ayzot App
5 DSP Consultancy
6 Etege
7 HelloDoctor
8 Liyana
9 M-Tena
10 mPharma
11 Nisre-Tena
12 Opian
13 Orbit Health
14 Simbona
15 Tena Care
16 VirtuDoc
17 Yookoo Doctor
18 Itena - Digital Medicine
19 Etege app

Agri-Tech

1 Anabi
2 ATA '8028'
3 Debo
4 Digital Green
5 Fayalo
6 Gebeya Net
7 Hello Erf
8 Le Ersha
9 Yerras Gebeya

VAS - Short codes

1 Short Codes (150+)

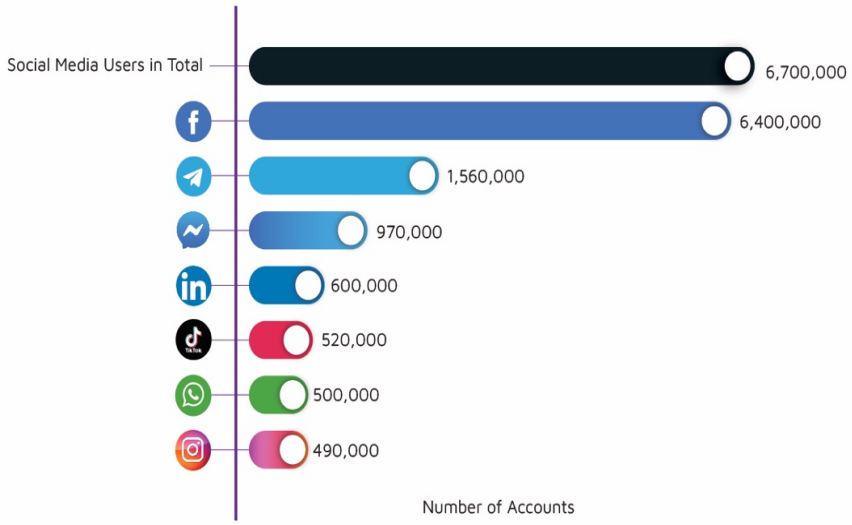
Source: Cepheus Research Survey
**Companies under formation and/or recent start-ups.*

- **Digital Media:** As Ethiopian society gains internet access, Digital Media has quickly become more accessible and convenient than print media. In order to keep up with competition, many traditional mass media outlets have also begun to migrate to digital mediums. The ability to monetize content has also encouraged entrepreneurs to turn their creative production into business ventures. The entertainment industry has also embraced digital media to reach much wider audiences, which has expanded beyond just the domestic market and caters to the diaspora as well.

- **One of the platforms experiencing massive uptake in Ethiopia is YouTube.** Some of the largest Ethiopian names in this space are attracting large user bases (above 1 million subscribers) and even larger online viewers (20-30 million per month in the most successful cases). Several notable media personalities are also launching their own Youtube channels, partnering with major advertisers to monetize their content. Most Major TV channels have moved to establish an online presence and transmit their content to a much larger global audience (especially the to the Diaspora) through YouTube and other social media channels. The YouTube phenomena has turned this platform into one of the most popular media channels providing Ethiopian news and entertainment content, while also enabling anyone with a smartphone or PC to create their own localized broadcast channel that bypasses traditional media (Figure 2.7b and Figure 2.7c).

- **Downloading and streaming services:** Meanwhile, some digital content providers are offering streaming and downloading services for music and video content. Examples include Awtar music downloads and Avetol video streaming, which aims to become the Ethiopian Netflix.

Figure 2.7b: Popular Social Media Platforms



Source: Hootsuite Report for 2021 and estimates for some line items

Figure 2.7c: Social Media: Ethiopia-specific Accounts with Large Followings

Facebook	Type	Followers
1 Abiy Ahmed Ali	Politician	3.3M
2 Tewnet	Digital Media	3.3M
3 Mereja.com	Digital Media	3.3M
4 Dire Tube	Digital Media	3M
5 Yegna Tube	Digital Media	2.3M

Instagram	Type	Followers
1 Hanan Tarq	Celebrity	996K
2 Danayt Mekbeb	Celebrity	972K
3 Amleset Muchie	Celebrity	808K
4 Fryat Yemane	Celebrity	682K
5 Selam Roman Tesfaye	Celebrity	633K

YouTube	Type	Subscribers
1 Hope Music Ethiopia	Music	1.7M
2 EBS TV worldwide	Mass Media	1.13M
3 Abel Birhanu	News Media	886K
4 EBC	TV Station	716K
5 Fana Television	TV Station	688K

TikTok	Type	Followers
1 Ha_yuti (Yuti_nass)	Content Creator	356K
2 Nebil Nur (nebilnur)	Content Creator	170K
3 Hanan Tarq (hanan_tarq)	Celebrity	134K
4 Habtamu Asmare (@hab_ace)	Content Creator	71.3K
5 Henock Gumataw (henokgum)	Content Creator	66.7K

Telegram	Type	Subscribers
1 @TikvahEthiopia	NewsMedia	1.1M
2 @Bisrat_Sport_FM	Sports	525K
3 @EthioYoutube	Videos and movies	513K
4 @ZenbilShoes	Ecommerce	441K
5 @AbissniaMusicOfficial	Music	424K

Twitter	Type	Followers
1 Tedros Adhanom	Politician	1.4M
2 Abiy Ahmed Ali	Politician	698K
3 African Union	Institution	668K
4 Ethiopian Airlines	Brand	428K
5 Haile Gebrselassie	Celebrity	269K

Source: Social media channels (as of May 2021)

- **Telecom-based VAS Short Codes, with over 150 current offerings, have generatd a high level of user engagement and revenue.** These codes can be used to donate to specific fundraising groups and subscribe to a range of 'info-tainment' offerings covering news, sports, health, law, languages, music, motivational quotes, relationship advice and more. Among the high uptake use cases are VAS shortcodes for GERD fundraising, senior citizen center fundraising, and Ethiopian music ring tones (CRBT).

- **Health-Tech:** Companies in this subsector have focused on ERP solutions, medicine supply chain solutions, and tele-health services. As the Ministry of Health works to digitize health information systems, health-tech companies find themselves beginning to gain more ERP clients among public and private health facilities. The software systems being implemented help to manage patient records, medicine inventory, hospital operations and finances.

- **Edu-Tech:** Many of the companies operating in this subsector are focused on training for specific skills or subjects, such as coding, language or general tutoring. Others are working to digitize learning overall, through the introduction of education-oriented enterprise software for schools, a trend that COVID-19 has expedited over the past year. However, with limited internet access across the country and economic factors that still limit uptake by most schools and parents, a fully-digitized education system is still likely some years away for Ethiopia. In the meantime, specialized training around IT skills is one area seen to show among the more successful use cases.

- **Agri-tech:** This is one area that—somewhat unexpectedly—shows very limited use cases or adoption. One exception is an informational VAS service (accessed by dialling 8028) provided to farmers by the Agricultural Transformation Agency (ATA). Otherwise, this is a sector that would appear to warrant high levels of activity—given the structure of Ethiopia's economy— but shows limited digitally supported use cases to date. This could be due, in part, to remaining gaps in basic infrastructure in the agriculture sector, such as limited adoption of modern farming systems as well as limited access to electricity and

telecom connectivity. Also, for a large portion of farmers, they still remain outside the reach of digital technologies and digital literacy remains a hurdle in this sector. Recent initiatives to modernize the agricultural sector—via the expanded use of fertilizers, irrigation, commercialized cluster farming, and modern machinery—provide opportunities for some tailored digital solutions and uses cases in each of these areas, and may thus bring more activity as a result within this segment of the digital ecosystem.

- **In other sector-specific domains, sports betting has proven to be especially popular in the past few years, attracting over 40 licensed businesses to date.** This business allows betting to be placed on a wide range of options, but mainly focused on football matches in European leagues, African leagues and virtually any other professional level game. A combination of websites and apps provide digital channels to users, including for payments, though physical betting locations are also now increasingly common. Regulated by the National Lottery Administration, the sector's revenue is subject to both winnings taxes and income taxes and has been rising substantially over the past few years.

Ecosystem Services

A final set of digital businesses, which we've labelled 'Ecosystem Services', provides the underlying infrastructure and support services critical to the operations of a thriving digital economy. These include infrastructure services, incubators/accelerators, associations, investors, software companies including BPO service providers, and e-Government services.

Figure 2.8: Ecosystem Services

Infrastructure

1 G2G
2 Gojo Host
3 Hahu Cloud
4 Raxio Group*
5 Red fox*
6 ScutiX*
7 Techno Bros
8 Websprix
9 Wingu*
10 Yegara Host

e-Government

1 Cardano*
2 DARA
3 e-filing
4 e-services portal
5 e-visa
6 ECX
7 EEID Renewal
8 EEPOA
9 Etrade platfrom
10 ICT Park

Incubators & accelerators

1 1888EC
2 Antler
3 BlueMoon
4 EDC Ethiopia
5 eGov. @MinT
6 Growth Africa
7 Growth Africa
8 IBA
9 IceAddis
10 ICT park
11 Orange
12 Orbit
13 STEM
14 Techno
15 xHub
16 Creative Hub

Private Investors (VC, PE, Angel)

1 54 Capital
2 AAA Network
3 Ascent Capital
4 Baobabu network
5 Betam Group
6 Cepheus Capital
7 Faifax Africa Fund
8 Kazana Group
9 Kudu ventures
10 Novastar
11 Renew Strategies
12 Roha Group
13 Startup Factory
14 Zoscales Partners

Co-working spaces

1 Adore Addis
2 BlueSpace
3 Insta Workspace
4 Pro Office
5 Sheger Hive
6 Urban Center
7 Yene Space

Associations

1 ICT -ET
2 Couriers Assoc.
3 Ethiopians in Tech
4 Fintech Assoc.
5 Sports Bet. Assoc.

Software Companies

1 360 Ground
2 4K Labs
3 ACE
4 AceTek
5 Addis
6 Aelaf
7 Afomsoft
8 Africa118
9 Africom
10 Allenatech
11 Alpha IT
12 Amestsantime
13 Appable
14 Askual Tech
15 Atlas Comp.
16 Awtar
17 Axiom
18 Beez Social
19 Belta
20 BERU
21 Bithio
22 Black Pixel
23 Bluelime
24 BSQUARE
25 Clearskies
26 Cloud Ethiopia
27 CNET
28 Collab Systems
29 Con Digital
30 CREAVERS
31 Credoks
32 DBR
33 Debo
34 Deliver
35 E Cloud
36 e_Lexicon
37 E-Tech
38 ECS
39 Epion
40 EQOS Global
41 ERP
42 Eset-tech
43 eTech
44 ETM Software
45 Ewenet
46 Exceed IT
47 Excellerent
48 Exodus
49 Extensible
50 Fairfax
51 Fidel Labs
52 Firmament
53 FYN Systems
54 G.C.S.
55 Gafat Techno
56 Guzo
57 HillMark
58 Hilmika
59 Home Link
60 HT
61 Hurricane
62 iBRAVE
63 iCOG Labs
64 IE Networks
65 InFin Eth
66 Infinity
67 Intersoft
68 Intracom
69 IPCOM
70 IWM
71 IWork
72 Kelem
73 Kerena
74 LeuNet
75 Leynet
76 LT ICT
77 Make Ent.
78 Marakisoft
79 Maseb
80 Mavas
81 Mella
82 MKTY
83 MMCY
84 Mosaic
85 Mullu
86 Negarit
87 New Wave
88 P.E.D.S.
89 Paga
90 Perago
91 Prime
92 R&D Group
93 Safenet
94 Sefed
95 Simbo
96 Soft Valley
97 SoftPro
98 Sweetopia
99 Symbol
100 Synergy
101 TechnoBrain
102 Tefer
103 TelePort
104 TYC
105 U.S.I.
106 Unlimited
107 UT
108 Vintage
109 Walaict
110 Walia
111 Web Rish
112 YESU
113 Yonet
114 ZalaTech
115 Zeeyon
116 Zentyad
117 Zowi Tech
118 Askwala
119 Icon-Africa
120 EthERNet Ethiopia

Selected Companies/Products

Perago
alx
GEBEYA

Investors (DFIs and others)

1 British Council
2 CDC
3 EU Commission
4 EU Inv. Bank
5 FCDO/ DFID
6 FINNFund
7 Gates Foundation
8 IFC
9 Indigo Trust
10 KFW
11 Mastercard
12 The World Bank
13 UNDP
14 USAID
15 Visa Foundation

Tech Talent/ Skills

1 A.I. Center
2 Addis Coder
3 ALX Ethiopia
4 Be Blocky
5 BelAcademy
6 Coding Camps
7 Education for Eth.
8 Entoto Project
9 FARIS Tech. Inst.
10 Gebeya
11 Gobeze Training
12 Higher Education
13 Huawei-AAU ICT Practice Center
14 iCOG ACC
15 Liyana Dig'l Health
16 Yenetta Code

Source: Cepheus Research Survey
**Companies under formation and/or recent start-ups.*

Our review of the ecosystem services space shows the following set of emerging companies and some notable features:

- **Private infrastructure providers**: This is becoming a notable segment of the digital economy landscape and includes key infrastructure providers, private ISP providers, and emerging data centers. The current players in this field include private companies providing 'last mile' fiber connectivity to households/businesses (G2G, Websprix), while an area showing emerging investment activity includes private data centers (where firms under establishment include Raxio, Wingu, Red Fox, and ScutiX).

- **Software companies**: The largest by number in the ecosystem services sector, at over 120 firms by our count, software companies are engaged in designing, building, implementing, and maintaining the systems used by local companies and some government agencies. Products typically include tailored phone apps, customized websites, programming solutions, and ERP solutions; some of these may be fully built-up and developed locally while others are modified versions of internationally available 'open source' or 'off-the-shelf' solutions. Software companies provide an important cross-sectoral support, and in some cases provide affordable, customized, and local solutions when purchasing global licenses is out of reach due to their high price tags and foreign currency limitations.

- **Funders:** As is covered later in this report, the emergence of various funding groups is providing a catalyst to the digital ecosystem, and such funding is increasingly coming from a broadening group of funders that includes dedicated government funds, foreign equity (venture capital, private equity) investors, and private local investors (see Section 5).

- **E-government services:** A number of e-government digital services have been launched in recent years including through dedicated portals such as www.business.gov.et and www.eservices.gov.et. E-Government services are also being implemented across all federal agencies through a partnership between the government and private sector software providers. Services such as visa requests by foreign travellers are now routinely processed online and handling thousands of cases per month. Government agencies already delivering electronic services include the Ministry of Foreign Affairs (visa services, diplomatic ID issuance/renewals, etc) while the intention is to eventually cover 100+ government services through digital channels, particularly in areas such as licensing, business permits, procurement, tax payments and others. Recent World Bank support in this area, including a dedicated $133mn of funding for 'Digital Government and Connectivity', should help the realization of these objectives.

To conclude this section, we provide below a full tabulation of all 570 digital products and services we have come across within the five digital segments.

Figure 2.9: Ethiopia's Digital Economy Landscape-Overview of Main Companies and Services

Digital Finance (Fintech)

Digital Banking

1 Mobile (17)
2 ATMs (18)
3 POS (18)
4 Internet (17)

Digital/ Mobile Wallets

1 Abay Be Deje
2 Amole
3 Awash M-Wallet
4 CBE-Birr
5 Coopay-Ebirr
6 Gizepay
7 HelloCash
8 Hi-Birr
9 Kacha Wallet*
10 M-Birr
11 OroCash
12 Sahay
13 Tele-Birr
14 Yaya Wallet*

Remittance (ET Brands)

1 CashGo
2 Mela Pay (Kifiya)
3 MamaPays*

Credit Services

1 Airtime Credit
2 Amole*
3 HelloCash*
4 Qena Loans*

Payment System Operators

Payment Switch
1 EthSwitch
2 PSS

Payment Processors
1 Flocash
2 MasterCard
3 Visa
4 YenePay
5 AlemPay*
6 AliPay*
7 Arif Pay*
8 Chapa Pay*
9 MelaPay*
10 PayWay Ethiopia*
11 Santim Pay*
12 SmilePay*
13 SunPay*
14 WeBirr*

Insurance

1 Hibret Online
2 Le-Mobile

Savings Group and Crowd funding

1 Agar Fund
2 Degafi
3 eQub App
4 Jamii One

E-commerce & E-Classifieds

General Marketplace/ Listings

1 AfroTie
2 Asbeza
3 Besh Gebeya*
4 Buy Sell Ethio
5 Delala
6 EShemeta
7 Ethio Shopping
8 Fetan Gebeya
9 HelloMerkato
10 HuluGram
11 Jiji
12 Kotett
13 Mirt Mirt
14 Qefira
15 Sell & Buy Addis
16 Sheger
17 Shilngie
18 Yet Ale
19 Zaremart
20 Berbera Market
21 UBuy ET

B2C

1 Agaffari
2 Addis Mart
3 Addis Mercato
4 Addis Souq
5 AddisBer
6 Africa E-shop
7 Asbeza
8 Balesuk
9 Brundo
10 Brundo Spices
11 Deamat
12 DuBuy*
13 Dumbulo
14 EQA Tera
15 Ethio Mereb
16 Ethio Suq
17 eWTP (Alibaba)*
18 Fetanmart
19 FloMart
20 GUZOMART
21 HellooMarket
22 HelloShop
23 HULU Express
24 Jumia
25 Kedame Gebeya
26 Kikuu
27 Merkato Online
28 Nile Ring
29 Online-Merkato
30 Qinash
31 Shega
32 Sodere Store
33 Utopia
34 Yene Store
35 Zembil
36 ZMALL
37 Sukmarket
38 Alert Square
39 Sheba Shopping
40 Shero Meda.Com

Info & Directory Services

1 2Merkato
2 Addis Map
3 Addismap
4 Adrasha
5 Afalagi
6 E-Adrasha
7 EthioTrack
8 HelloInfo
9 Huleinfo
10 Startup Rank.
11 Mall ET

Gift Services

1 Bole Gifts
2 Abyssinia Gift
3 Angel's
4 BeteSeb
5 Diaspora Gifts
6 Lagerbet sitota
7 Muday Gift Shop
8 Surprise Habesha

Booking and Billing

1 AddisPass
2 Derash Billing
3 Engida Travel
4 Gojo Rooms
5 GuzoGo
6 HelloBill
7 Kifiya
8 Lehulu
9 Payway Ethiopia
10 Room Roaming
11 Uni-Cash
12 Yeha Rooms
13 YeneGuzo
14 Kelal Bus Ticket

Electronic Airtime Distribution

1 Eth. Postal serv.
2 EthioTele App
3 EVD Distribution
4 Hello
5 Hidasse Telecom
6 Highlight Trading
7 Kifiya
8 Yimulu

International Airtime Topup

1 Al Ansari
2 beCharge
3 Bookeey
4 Bossrevolution
5 DentWireless
6 Ding
7 Disashop
8 ENET
9 EthioRemit
10 eTranzact
11 Gulfbox
12 Kazang
13 ManGO Wallet
14 MobileRecharge
15 NTPayments
16 Orange Top Up
17 Poundland
18 PrepaidUnion
19 Rebtel
20 Recharge
21 Reloadly
22 Senditoo
23 SiftMobile
24 Sisalpay
25 Tranglo
26 Upay
27 Utransto
28 VIP
29 WorldRemit

Specialized Marketplaces

Jobs

1 22bole Jobs
2 Addis Jobs
3 Dereje
4 Employ Eth.
5 Etcareeers
6 Ethiojobs
7 Etsework
8 Everjobs
9 Ezega
10 Freelance Eth.
11 Geez Jobs
12 Hahu Jobs
13 Hello Sera
14 Instant Sys.
15 Jobs in Eth.
16 JobsETH
17 JobVacancy
18 JobWeb Eth.
19 Just Jobs
20 Milkta
21 Mjobs
22 Nile Jobs
23 QSIRA
24 Reporter Jobs
25 Sira App
26 Freelancer
27 Y.E.S.
28 Z Freelancers
29 Zion Jobs

On Demand Services & GigJobs

1 Adarash
2 Be singularity
3 GoodayOn
4 Kech
5 Keteme
6 Taskmoby
7 TERRA

Tenders

1 2Merkato
2 Awash Tenders
3 Beta Tender
4 E-Tender
5 Ethiopia market
6 Habesha Tender
7 Mob Tenders
8 Reporter Tenders

Auto

1 Addis Market
2 CarGebeya
3 eMekina
4 Ethio Car
5 Hulucars
6 Mekina
7 Mekina Mender
8 Mekina Zone
9 Mekinaye
10 Sheger Auto
11 Sheger Cars

Housing

1 AddisGojo
2 Ahadu Property
3 Betoch
4 Betoch Gebeya
5 Elfegn
6 EnterEthiopia
7 Ethio Betoch
8 EthiopianHome
9 Ethiopian Prop.
10 Gojo Property
11 Homes in Addis
12 Keys to Addis
13 Property.ET
14 Real Addis
15 RealEthio
16 RentInAddis
17 Tiya Properties
18 Zegebeya

Social, Dating, Events, Games

1 Ahun
2 Enhid
3 Ethiolocate
4 Jebena Dating
5 Konjo Dating
6 Kukulu
7 Kum Neger Dating
8 Lomi Dating
9 Meda Chat
10 MN Ale Addis
11 Shegerbuzz
12 Fantasy Games Ethiopia

Transport & Logistics

Ride Hailing

1 Adarash Taxi
2 Addis Ride
3 Adwa Rides
4 Afrina Ride
5 Alem Pay
6 Axum Ride
7 Biza Ride
8 Catch
9 Dallol
10 E-Gari
11 Easy Trip
12 EASYRide
13 ETTA
14 Feres
15 Fetan-Rides
16 GoFlex
17 Hello Taxi
18 Lift
19 Ligaba
20 Lole Ride
21 MACAFEL
22 Movex
23 Pick Me Rides
24 PickPick
25 Polo trip
26 RIDE
27 Ring Taxi
28 Rush
29 Seregela
30 Share Me
31 Shuffer
32 Sun-Pick
33 Swift
34 Taxiva
35 Taxiye
36 Tribe
37 Trip
38 Wekil taxi
39 Weye
40 ZayRide
41 Ze-Lucy
42 Zebra Rides

Delivery

1 Across Express
2 Ahunnnu
3 Balderasu
4 Che Delivery
5 Dasher Delivery
6 Deliver Addis
7 Derash Express
8 EAT ADDIS
9 Elfegne
10 EMS
11 Eshi Express
12 Go Delivery
13 Hud Hud Express
14 Lole Delivery
15 Magic Express
16 Megebia
17 Mesob delivery
18 Moteregnaw
19 Movex
20 Sebile Fruit
21 Share Me
22 Sheger Express
23 Telalaki
24 Tikus Delivery
25 Tolo Delivery
26 We Deliver
27 Yetem Delivery
28 Camel Cargo

Source: Cepheus Capital Research compilation

Sector Tech

Music & Video

1 ArifZefen
2 Avetol*
3 Awtar Media
4 Bana
5 Bellema
6 Hope
7 Minew-Shewa
8 Nile Streams
9 OTV
10 Shekla
11 Sodere
12 Zema

Digital Media

1 Addis Insight
2 Addis Zena
3 Addis Zeybe
4 Aterira
5 Digital Habesha
6 Dire Tube
7 Enhid
8 G-Media
9 Ke-Tsenat
10 Linkup Addis
11 Seena Ad
12 Sewasewe
13 Shega Media
14 Tikvah-ET

Digital Marketing

1 Abyssinia
2 Aligo Digital
3 Cloud Ethiopia
4 Kabo Media
5 Krinfud Digitals
6 MelaTop
7 Online Comm.
8 Seena-ad
9 Summer Media
10 TEDCLICK
11 Wazema

VAS - Short codes

1 Short Codes (150+)

Edu-Tech

1 6killo
2 Accelrated
3 ashewa
4 Fetena
5 Hahu
6 Haleta
7 I-tutor
8 Kuraztech
9 Langobot
10 Lesan
11 NEbab
12 SeEd
13 Sewasewe
14 Temari Bet
15 Temari NET
16 TIBEB
17 Yazmi
18 Yehow
19 Yehulum
20 E-fanos

Health Tech

1 50 Lomi
2 Allenatech
3 Avion
4 Ayzot App
5 DSP Consultancy
6 Etege
7 HelloDoctor
8 Liyana
9 M-Tena
10 mPharma
11 Nisre-Tena
12 Opian
13 Orbit Health
14 Simbona
15 Tena Care
16 VirtuDoc
17 Yookoo Doctor
18 Itena - Digital Medicine
19 Etege app

Agri-Tech

1 Anabi
2 ATA '8028'
3 Debo
4 Digital Green
5 Fayalo
6 Gebeya Net
7 Hello Erf
8 Le Ersha
9 Yerras Gebeya

Online Sports Betting

1 Abyssinia Bet
2 Anbessa
3 AxumBet
4 Bet 251
5 Bet-King
6 Betika
7 Blen
8 Bravo Bet
9 Ethio
10 Fan 11
11 Galxy
12 Gihon
13 Glxwin
14 Gmit Bet
15 Habesha
16 Harif Sport
17 HuluSport
18 Sheger Bet
19 Vamos
20 Afro Bet

Ecosystem Services

Infrastructure

1 G2G
2 Gojo Host
3 Hahu Cloud
4 Raxio Group*
5 Red fox*
6 ScutiX*
7 Techno Bros
8 Websprix
9 Wingu*
10 Yegara Host

Incubators & Accelerators

1 1888EC
2 Antler
3 BlueMoon
4 EDC Ethiopia
5 eGov. @MinT
6 Growth Africa
7 Growth Africa
8 IBA
9 IceAddis
10 ICT park
11 Orange
12 Orbit
13 STEM
14 Techno
15 xHub
16 Creative Hub

Co-working spaces

1 Adore Addis
2 BlueSpace
3 Insta Workspace
4 Pro Office
5 Sheger Hive
6 Urban Center
7 Yene Space

Associations

1 ICT -ET
2 Couriers Assoc.
3 Ethiopians in Tech
4 Fintech Assoc.
5 Sports Bet. Assoc.

Software Companies

1 360 Ground
2 4K Labs
3 ACE
4 AceTek
5 Addis
6 Aelaf
7 Afomsoft
8 Africa118
9 Africom
10 Allenatech
11 Alpha IT
12 Amestsantime
13 Appable
14 Askual Tech
15 Askwala
16 Atlas Comp.
17 Awtar
18 Axiom
19 Beez Social
20 Belta
21 BERU
22 Bithio
23 Black Pixel
24 Bluelime
25 BSQUARE
26 Clearskies
27 Cloud Ethiopia
28 CNET
29 Collab Systems
30 Con Digital
31 CREAVERS
32 Credoks
33 DBR
34 Debo
35 Deliver
36 E Cloud
37 e_Lexicon
38 E-Tech
39 ECS
40 Epion
41 EQOS Global
42 ERP
43 Eset-tech
44 eTech
45 EthERNet Ethiopia
46 ETM Software
47 Ewenet
48 Exceed IT
49 Excellerent
50 Exodus
51 Extensible
52 Fairfax
53 Fidel Labs
54 Firmament
55 FYN Systems
56 G.C.S.
57 Gafat Techno
58 Guzo
59 HillMark
60 Hilmika
61 Home Link
62 HT
63 Hurricane
64 iBRAVE
65 iCOG Labs
66 Icon-Africa
67 IE Networks
68 InFin Eth
69 Infinity
70 Intersoft
71 Intracom
72 IPCOM
73 IWM
74 IWork
75 Kelem
76 Kerena
77 LeuNet
78 Leynet
79 LT ICT
80 Make Ent.
81 Marakisoft
82 Maseb
83 Mavas
84 Mella
85 MKTY
86 MMCY
87 Mosaic
88 Mullu
89 Negarit
90 New Wave
91 P.E.D.S.
92 Paga
93 Perago
94 Prime
95 R&D Group
96 Safenet
97 Sefed
98 Simbo
99 Soft Valley
100 SoftPro
101 Sweetopia
102 Symbol
103 Synergy
104 TechnoBrain
105 Tefer
106 TelePort
107 TYC
108 U.S.I.
109 Unlimited
110 UT
111 Vintage
112 Walaict
113 Walia
114 Web Rish
115 YESU
116 Yonet
117 ZalaTech
118 Zeeyon
119 Zentyad
120 Zowi Tech

e-Government

1 Cardano*
2 DARA
3 e-filing
4 e-services portal
5 e-visa
6 ECX
7 EEID Renewal
8 EEPOA
9 Etrade platfrom
10 ICT Park

Tech Talent/ Skills

1 A.I. Center
2 Addis Coder
3 ALX Ethiopia
4 Be Blocky
5 BelAcademy
6 Coding Camps
7 Education for Eth.
8 Entoto Project
9 FARIS Tech. Inst.
10 Gebeya
11 Gobeze Training
12 Higher Education
13 iCOG ACC
14 Liyana Dig'l Health
15 Yenetta Code
16 Huawei-AAU ICT Practice Center

Investors (DFIs and others)

1 British Council
2 CDC
3 EU Commission
4 EU Inv. Bank
5 FCDO/ DFID
6 FINNFund
7 Gates Foundation
8 IFC
9 Indigo Trust
10 KFW
11 Mastercard
12 The World Bank
13 UNDP
14 USAID
15 Visa Foundation

Private Investors (VC, PE, Angel)

1 54 Capital
2 AAA Network
3 Ascent Capital
4 Baobabu network
5 Betam Group
6 Cepheus Capital
7 Faifax Africa Fund
8 Kazana Group
9 Kudu ventures
10 Novastar
11 Renew Strategies
12 Roha Group
13 Startup Factory
14 Zoscales Partners

Companies under formation and/or recent start-ups.

Source: Cepheus Capital Research compilation

SECTION 3: Ethiopia's Digital Disruptors—A Profile of 30 Notable Companies

Key points

- **Though the overall digital economy is at its early stages, we find a small group of companies with well-established user bases even in what has been a generally challenging operating environment.**
- **These 30 companies stand out for one or more distinctive features: for example, building up a large user base (in the millions of active users in some cases); digitizing the majority of their sales transactions; or truly disrupting previous ways of service provision (ride-hailing).**
- **Among these 30 notable 'digital disruptors', seven are in the digital finance space (CBE Birr, EthSwitch, Amole, Hello Cash, Ethio Telecom's Credit Service, Kifiya and Telebirr); six in the e-commerce services (ethio jobs, mekina.net, helloomarket, Addis Mercato, ZMall, Africa118), four in transport/logistics (Ride, Feres, Zayride, Deliver Addis), nine in sector-tech (Hope Entertainment, Dire Tube, Sodere, Awtar, Tikvah, Hulusport, Orbit Health, the 8020 Farmer Hotline, Ethio Telecom's 100+ phone based info-tainment services) and four in ecosystem services (iceaddis, Gebeya, Perago and Viditure).**

Despite a challenging environment, a subset of Ethiopian companies have successfully adopted and applied the use of digital platforms and channels across a number of traditional businesses. We profile below 30 such companies across five segments spanning digital financial services, e-commerce, transport/logistics, sector-tech, and ecosystem services. Besides summarizing available information on each company's overall operations below, we highlight upfront some of the more impressive use cases and service offerings.

Digital Finance:

- **CBE—Digital vs Branch-based transactions**:
  - The majority of CBE's customer transactions were for the first time conducted via digital channels rather than at bank counters, with 62 percent of transactions conducted digitally this year vs just 38 percent last year.
- **Banking sector**:
  - The banking sector's usage of digital channels is up six-fold over the past five years, and has reached Birr 242bn in transaction value—equivalent to 7% of GDP—as of 2020.
  - The enabling digital network among all banks now includes 6,259 ATMs, 9,780 POS machines, 16 million debit cards, 9 million mobile banking users, 1.5 million internet banking users and 12 million mobile wallet users.
  - Close to half a million daily transactions are now conducted via digital forms—namely via ATMs, POS, Internet Banking and Mobile Wallets.
- **EthSwitch**:
  - The National switch operator for the financial sector is becoming the key backbone that enables interoperability among various financial service providers including banks, MFIs, and the soon-to-be-emerging 'fin-techs.' It has so far allowed for live connectivity between banks' ATM and POS devices (so one bank's customer can withdraw at another bank's ATM) but will soon be in a position to provide such interoperability and instant retail payments among banks, MFIs, wallet providers, payments services providers, and others who join into its network.
- **Amole Mobile Wallet**:
  - Owned by Dashen Bank and powered by Moneta Technologies, Amole is one of the leading mobile wallets in the country with 2.3mn registered users and over Birr 7bn in cumulative transactions.

- **M-Birr**
  - The first mobile wallet launched in the market, currently working with six MFIs. Reports 1.7 million customers, handles large amount of government safety net payments in rural areas.
- **Hello Cash Mobile Wallet**
  - Offered by technology provider BelCash in association with Lion Bank, Wegagen Bank, CBO, and Somali Micro Finance. It has 2 million registered users, 10,000 agents, 15,000 merchants, and processes 5.3 million monthly transactions worth 4 billion birr.
  - Very active in the Somali Region, where it processes as much as 3 million transactions per month valued at Birr 1bn.
- **Ethio Telecom Credit:**
  - Airtime credit offered to Ethio Telecom users who run out of pre-paid airtime. Amounts offered start from Birr 15 and go up to Birr 100 as customer establishes repayment record. Ten percent service fee is charged.
  - Used by 2 million users every month with Birr 1.1bn loan value monthly. Estimated net revenue of Birr 200 million from this service in 2020.
  - While not officially a financial product, this is the first of this kind digital 'micro-credit' service offered in the market and has a large and growing uptake.
- **Kifiya:**
  - One of the early entrants into the digital space, with past work in unified billing service and in the distribution of digital airtime.
  - Recently entered the e-commerce space with its 'Shega' brand, which handles payment and delivery for all merchandise listed on its website.
  - Preparing to launch multiple offerings including MelaPay (mobile wallet), Qena (digital lending), che (delivery), Shega Fre (a digital agriculture platform), and Shega Muya (gig platform focused on informal sector workers).
  - Given multiple offerings in the pipeline, and if successfully executed, company may be positioned to offer a local 'Super App' containing e-commerce, payments, delivery, lending, and other services.
- **TeleBirr**
  - The newest entrant into the mobile money business, Ethio Telecom's TeleBirr is very likely to establish a dominant presence in this space. This mobile money service has already attracted 3 million users in the first few weeks of its launch (boosted in part by a Birr 15 promotional incentive). Services to include cash-in/cash-out via agent network, P2P transfers, bill payments, merchant payments, airtime top-up, and micro-credit.
  - As all existing Ethio Telecom's subscribers (likely 45mn plus unique users) are an easy target market, Ethio Telecom can likely meet its goal of reaching 21 million users in the first year. Per company indications (at its launch), an assumed 60 percent active customer base will be processing 710mn transactions by volume and Birr 69.6bn by value by the end of the first year, implying on average of 4.7 transactions per customer per month and near Birr 100 of value per individual transaction.

E-commerce & E-Classifieds:

- **Ethio Jobs:**
  - This leading job board site is among Ethiopia's most visited websites, with over 4,000 visits per day, and a database of 500,000 CVs accumulated over the years.
- **Mekina.net**
  - The most popular vehicle sales website, with 1,000 new posts registered monthly. Good monetization developed, with Birr 400 charged for one-month ad postings.

- **Helloo Market**
  - One of the major B2C e-commerce sites with 1,300 vendors, 5,000 merchandise items on the platform, and close to 100 transactions on a daily basis.
- **Addis Mercato**
  - A web-based marketplace of third party merchandise. Keeps limited stock in warehouses. Facilitates payment through Amole, local bank transfer or international processors. They delivered 85k items their first year and have 33 merchants operating on their platform.
- **Ethiopian Airlines**
  - The national carrier has become a leader in shifting its sales from physical outlet points (ticket offices) to digital sales channels that include its website and mobile app. Over 50 different payment options are currently offered upon 'checkout' at their website or app. Partly reflecting the discounted prices offered when using its digital channels, Ethiopian Airlines now processes 34 percent of its global sales and 50 percent of its sales within Ethiopia via digital channels.
- **ZMall**
  - ZMall delivers products from 30 merchants on their app, including groceries and fast food, using fleet of 60 motorbikes. They report 180,000 completed deliveries in 2 years of operation and 60,000 users.

Transport & Logistics:

- **Ride:**
  - Market leader with a network of more than 20,000 drivers and (per our estimates) a gross booking value of Birr 5mn to 6mn per day.
- **Feres:**
  - A newcomer to the industry that appears to now have a second largest share due to aggressive pricing, better driver commissions, and attractive customer incentive programs that includes referral bonuses and bonus points that can be used for future use or for buying airtime or even converted to cash withdrawals at agents of the E-Birr Wallet service.
  - Starting a food delivery service using its network of drivers and partnerships with restaurants (mimicking the Uber eats service offered in global markets)
- **Zay Ride:**
  - Among the top industry players, averaging 6,000 trips per day as of early 2021.
- **Deliver Addis:**
  - The most popular food delivery service in Addis, it links restaurants with consumers through a mobile app & web platform, processes orders, delivers and receives payment, followed by a weekly settlement with merchants. Reports $200k monthly transaction value.
- **Eshi Express:**
  - Eshi Express is a last mile courier delivery service that is currently in the process of digitizing and scaling up operations. They provide delivery service for individuals and corporate clients such as e-commerce platforms, manufacturers, and traders.

Sector-tech:

- **Digital media (Hope Entertainment, Dire Tube, Sodere Tube)**
  - Entertainment companies like Hope Entertainment produce and stream local content like music videos through YouTube. Hope Entertainment alone generates 25million average views per month and has 1.4 billion in cumulative total views. Others in the space focus on feature films, news, and other forms of entertainment. Some offer their content through a subscription model. This is one area with tremendous revenue potential, including revenue

streams collectable in foreign currency reflecting payments from the large global platforms such as YouTube and subscriptions from Ethiopia's large diaspora community.

- **Streaming/Downloading services (Awtar)**
  - Up and coming streaming services like Awtar provide a legal and formal way to access local music, with artists/creators sharing revenue (up to 54 percent) from the business platform. Awtar alone has over 50k app downloads and enable users to purchase songs or albums using mobile airtime credit.
- **Sports Betting (Hulusport and BetKing)**
  - Sports Betting platforms like HuluSport and BetKing have a captive audience among many young people in urban areas. By placing bets on international and local sports games, betters can put down as little as 10 Birr for a potential winning of several thousand Birr. Based on discussions with market players, and the reported revenue of the regulatory authority in this area (National Lottery Administration), we find that sports betting has already passed Birr 1 billion in gross transaction value on an annual basis and is delivering monthly commissions to the NLA of as much as Birr 10mn as of February 2021.
- **Value Added Services (VAS)**
  - VAS offered through Ethio Telecom generate a sizeable amount of revenue for the 150+ companies providing these services. Estimated to be generating around 260 million birr net annual revenue for Ethio Telecom, which takes a 40% share, VAS services provide information to subscribers through SMS on topics such as sports, health, news, business, personal development, and entertainment.
- **ATA Farmer Hotline**
  - ATA's '8028' short code sends voice messages to farmers who may not be literate. Messages guide farmers on best practices, and also delivers advice for specific events such as droughts, pest infestations, or disease outbreaks. The service has 5.5 million registered users and has sent 2 million alerts over its 4 years of operation.
- **Social media based offerings (Tikvah)**
  - Tikvah-Ethiopia operates a Telegram channel with over 1.1 million subscribers. It is the leading digital channel dedicated solely to local news aggregation on Telegram and is very popular among University students and the youth. It also curates crowd-sourced local news. In order to generate income, it recently started selling ads on its platform, and the monetization potential seems high in line with its large and growing user base.
- **Health Tech (Orbit Health)**
  - Providing Health Management Systems that cover health facilities management and patient records management, Orbit Health custom builds software for the client's needs, then implements it and provides maintenance with an annual fee. Orbit also operates an Innovation Hub and business accelerator in partnership with MasterCard and runs Orbit Academy, which provides digital health literacy training and soft skills training.

Ecosystem services:

- **Perago**
  - Perago is a software company that provides enterprise software solutions. One of their major successes is their provision and maintenance of e-government portals www.business.gov.et and www.eservices.gov.et. Perago and similar companies are well-positioned to boost their service offerings as the government intends to digitalize the provision of information and services of most public agencies in the coming years.

- **Viditure**
  - Uses a patented Video-Signature (Viditure) technology to provide e-government services to Ethiopian Diaspora through two main products: E-POA and EE-ID-Renewal.
  - E-POA: Digital power of attorney service that processes power of attorney forms through a mobile app and then digitally facilitates the process with Ethiopian government agencies.
  - EE-ID-Renewal: Provides the Ethiopian Origin ID Card and Passport renewal services for the Ethiopian Diaspora through a mobile app.
- **IceAddis**
  - The first innovation hub and incubator in Ethiopia, IceAddis has been active in building the startup ecosystem through providing co-working spaces, incubation and acceleration services, organizing events, and facilitating investments.
  - They have supported 160+ entrepreneurs, incubated 45 startups, accelerated 31 startups, launched 75+ products, and hosted 300+ events over the past decade.
- **Gebeya**
  - Provides on demand tech talent, training and software development services. The company has secured more than $2.5mn funding and graduated more than 600 trainees with a 66+ percent placement rate.

CBE Mobile Banking & CBE Birr Mobile Wallet

Vertical: Digital Finance Category: Digital Banking

Services & Story

- Over 4.6 million mobile banking users which offers multiple use cases including utility payments Ethiopian Airlines payments, Water bills and Immigration fees.
- Has launched CBE-Birr Mobile wallet service in 2017 and it has grown to 5.5 million users in 2021, supported by nearly 12,000 agents and bank branches.

Activity Indicators:

- Mobile banking users: 4.6mn users
- CBE Birr wallet service: 5.5mn users (up by 3.7mn users from 1.8mn year before)
- Internet Banking: 30,000 users (up 12,000 from 18,000 year before)
- Digital transactions: Now 62% of total transactions (vs just 38% year before)
- Operates 1,666 Branches, 3,083 ATMs, 4,386 POS and 30mn Transaction Accounts

Overview

Service Provider: Commercial Bank of Ethiopia

Founded: 2017 for CBE Birr

Service: Digital Banking & Mobile Wallet

EthioPay (EthSwitch)

Vertical: Digital Finance Category: Payment Switch

Services & Story

- The National switch operator for the Banking sector
- Manages interbank interoperability, Enables ATM , POS interoperability with plans to add account to account , account to wallet and wallet to wallet integration soon

Activity Indicators:

- Processing around 2.8 million successful transactions every month with a value of 2.6 billion birr as of February 2021.
- Declared a revenue of 94.5 million Birr and profit of 24.3 million birr in 2019/20
- Processed 99 million transaction with a value of Birr 87bn in 2019/20.

Future Plans:

- All banks and payment system operators are mandated to achieve interoperability by connecting to EthSwitch

Overview

Service Provider: EthSwitch S.C.

Founded: 2011

Service: Interbank operability

Amole

Vertical: Digital Finance Category: Mobile Wallet

Services & Story

- Powered by Moneta Technologies, Amole is one of the leading mobile wallets in the country.
- Has managed to integrate with over 150 e-commerce and app platforms.
- Has focused on expanding use cases and enabling payment for stadium tickets, music events and entertainment.
- Revenue Sources: 1-2% fee for certain transactions
- Service is accessible using USSD, Smart phone app, MPOS and Telegram bots channels

Overview

Service Provider: Dashen Bank S.C.

Launched: 2018

Service: Mobile Wallet

Activity Indicators:

- 2.3mn users (190k/ mo active)
- 9000 merchants & 35mn birr retail payments
- 7.38billion birr total transactions
- 21mn birr in airtime purchase
- 91.6mn birr Ethio. Airticket sales
- 44mn birr DSTV payments

Future Plans:

- Partnered with Visa to launch an E-payment gateway for international payments in Ethiopia in April 2021.
- Has partnered with Flutterwave to facilitate remittance flows into Ethiopia in May 2021
- Launching an E-commerce platform by mid-2021.
- Launching a Micro-credit service by mid-2021.

HelloCash

Vertical: Digital Finance Category: Mobile Wallet

Services & Story

- HelloCash operates a mobile wallet service that is linked with 4 banks, with whom it has revenue sharing agreements.
- Customers can access the service with a USSD short code, mobile app or telegram bot.
- Operates through IVR, SMS, USSD, Telegram or mobile apps in 5 languages
- Provides P2P transfer, agent cash in / cash out and payment services.
- Also operates MamaPays (Micro Remittance)

Overview

Service Provider: Lion International Bank, Somali Microfinance, Wegaen Bank and Cooperative Bank of Oromia – powered by BelCash.

Founded: 2015

Service: Mobile Wallet service

Activity Indicators:

- 100bn birr transacted since 2015
- 100mn transactions since 2015
- 5.3mn transactions monthly with avg value of 4bn birr
- Has registered 2mn users
- Processing 1.5mn birr daily airtime distribution
- 15k merchants
- 10k agents
- 63 businesses are using their API
- Popular in Somali region as a retail payment method and commonly used for P2P transfer.

Future Plans:

- Plans to launch micro-credit service soon

TeleBirr

Vertical: Digital Finance Category: Mobile Wallet

Services & Story

- Services: P2P transfers, utility bill payments, airtime top-up, fundraisers, merchant payments, deposit and withdraw, etc.
- Operates through SMS, USSD or mobile apps. Operates in 5 languages.

Activity Indicators:

- Platform acquired from Huawei and has the capacity to processes 100 transactions per second (TPS), with ability to scale to 1000 TPS
- 44+ million potential subscribers (targeting 21 million in 1st year)
- Planning to utilize the existing telecom service distribution network for Tele birr services to provide registration, cash in and cash out services.

Future Plans:

-Plans to rollout micro-credit services in the future.
- Aims to process a transaction value of Birr 3.5 trillion in five years (40-50% of projected GDP)

Overview

Service Provider: Ethio Telecom

Launched: 2021

Service: Mobile Wallet

Airtime Credit

Vertical: Digital Finance Category: Credit Services

Services & Story

- Ethio Telecom users who have utilized all their airtime balance are able request an advance for additional airtime credit. Once they refill their account, the loan amount is deducted from their top-up balance and a 10% service fee also charged.

Activity Indicators:

- 11+ million are active users every month
- 2 billion loan value in 2020
- Birr 200+ mn estimate revenue in 2020

Overview

Service Provider: Ethio Telecom

Founded: 2018

Service: Airtime Credit service

Helloo Market

Vertical: E-commerce Category: B2C Marketplace

HellOOMarket

Services & Story

- Business & Operating Model: Web and Telegram based marketplace of third-party merchandise. Keeps stock in warehouses.
- Receives payment via HelloCash or Cash on Delivery, and then reimburses merchants
- Same Day delivery available.
- Revenue Sources: Delivery Fee; Commission from Merchants.
- It has also implemented the first pay-as-you-go (PAYG) platform in the country through its HelloSolar offering, which sells solar panels to households.

Unique Offerings

- Full order and payment can be done via Telegram via HelloCash
- Offers primarily locally produced products, supporting SMEs.

Activity Indicators:

- 5000 merchandise items
- 1300 Vendors

Overview

Service Provider: Amasis PLC in partnership with Belcash

Launched: 2019

Service: B2C Marketplace and Delivery

Service Area: Nationwide

Kifiya

Vertical: E-commerce Category: B2C Marketplace

kifiya

Services & Story

- One of the prominent technology companies in Ethiopia's digital ecosystem
- Previously operated Lehulu Utility Billing service via a public private partnership with the Ethiopian Government.
- Experience in the deployment of technology solutions in payments, agricultural, and insurance programs.
- Recently launching and/or expanding a range of digital product offerings across multiple sectors including: Shega (Ecommerce platform); Shega Fre (ሸጋፍሬ) (Agricultural contract farming solution); Shega Kena (micro credit service); Che and Che Freight (Logistics and Transport service); Mela Pay (Payment platform); Shega Moya (Gig jobs platform); Shega Travel (online hotel and travel booking platform)

Overview

Service Provider: Kifiya

Launched: 2010

Service: Airtime distribution, e-commerce, payments, transport, and logistics

Activity Indicators:

- 520+ employees with office and warehouse presence in 13 cities across the country
- Network of 15,000 agent network for last mile distribution
- Fleet of 5 trucks, 10 vans and 50 motorcycles
- Partnership with Mastercard in a $15mn program to support MSMEs with access to markets, working capital, and expanding business opportunities through digital payments.

Z-Mall

Vertical: E-commerce Category: B2C Marketplace

Services & Story

- App and Web based marketplace for food, groceries and cosmetics
  Provides a competitive delivery service with live GPS tracking

Activity Indicators:

- 30 vendors on their app (plus ~70 off-platform)
  Reports 60k total users
  180k completed deliveries
  and a fleet of 60 motorbikes

Overview

Service Provider: ETTA Solutions

Launched: 2019

Service: Online market-place and delivery

Addis Mercato

Vertical: E-commerce Category: B2C Marketplace

Services & Story

- Web based marketplace of third party merchandise with limited warehouse.
- Facilitates payment through Amole, local bank transfer or international processors.
- Same Day delivery available. Orders over Birr 3,500 are free. 50% of deliveries outsourced.
- Revenue Sources: Delivery Fee and Commission from Merchants
- Challenges: Lack of national addressing system, Payment Processing

Unique Offerings

- Accepts payment from Kenya, Rwanda, Tanzania, Ghana via MTN, mPesa, Vodacom, Airtel
- Same Day Delivery: Addis, Debrezeit, Adama
- Next Day Delivery: Hawassa, Bahir Dar, Dire Dawa, Mekelle, Gonder, Jimma, Jigjiga, Dessie, Kombolcha, Axum , Assosa, and Shere

Overview

Service Provider: Addis Mercato

Launched: 2019 by Abiy Selassie

Service: E-Commerce Marketplace and Delivery

Activity Indicators:

- 85,000 items delivered in the first year from 33 Merchants
- 207% YOY growth
- Over Easter holiday 2020, processed 500,000 ETB in transaction sover holiday period.

Future Plans

- Raising funds to fuel growth

Africa 118 (Info Moby & Task Moby)

Vertical: E-commerce Category: E-Classifieds

taskmoby infomoby

Services & Story

- InfoMoby: Works with Google to verify SMEs on Google Maps and build an online presence.
- TaskMoby: on-demand gig workers, such as cleaners, electricians, plumbers, painters, finishers, nannies and other domestic workers.
  - o All 1500 gig workers are covered by a guarantor (form of insurance)
  - o Service costs 50% of market price

Overview

Service Provider: Africa118

Launched: 2012

Service: Gig jobs, Information Services

Activity Indicators:

- 150 staff internationally, 40 of which are in Ethiopia.
- 6000 jobs completed in Ethiopia
- 600 female and 900 male service providers on taskmoby
- 40k businesses trained in digital skills
- 10k businesses received verified presence on Google Map
- 1000+ Digital Marketing clients.

Future Plans

- $350K USD GSMA Innovation Fund grant in 2021.
- Africa118 is looking to raise its Series A in 2021.

EthioJobs

Vertical: E-commerce Category: E-Classifieds

ethioJobs Be Discovered

Services & Story

- Business & Operating Model:
- Revenue Sources: Charges Birr 3,500 per post for 1 month; Job Placement service
- Challenges: Internet shut-downs; Web hosting in Ethiopia not up to standard

Unique Offerings

- Separate employment platform 'Dereja' just for recent graduates, also provides training to up to 20k graduates per year.

Overview

Service Provider: Info Mind Solutions

Launched: 2004 by Yusuf Reja

Service: Job Listings

Activity Indicators:

- 2,000 Companies using the platform
- Database of 500,000 CVs
- 4,000 website visits per day
- Average 800 jobs posted every month
- Only Ethiopian company on Ethiopia's top 20 most visited websites

Future Plans

- Working with MasterCard and JCC on Employability Skills Training.

Mekina.net

Vertical: E-commerce Category: E-Classifieds

Services & Story

- Provides on online marketplace for car buyers and sellers to connect.
- Revenue Sources: Charges 400 per post; Hosts Ads on the website.
- Challenges: Payment processing; Limitations on FDI

Activity Indicators:

- 1,000 posts per month
- Ranked #2 Internet Business in Ethiopia by Economist Magazine

Future Plans

- Looking for investment
- Interest to involve in import and other adjacent services

Overview

Service Provider: Mekina.net

Launched: 2010 by Araya Lakew

Service: Car Marketplace

Ride

Vertical: Transport & Logistics Category: Ride Hailing

Services & Story

- Connects drivers with their own cars to passengers using a mobile app and/or short code
- Revenue Source: 12-17% Service fee on each ride
- Challenges: Internet shutdowns; Regulations on car registrations

Activity Indicators:

- 500,000+ app downloads;
- Estimated 30,000 to 40,000 trips per day

Overview

Service Provider: Hybrid Designs PLC

Launched: 2014

Service: Ride Hailing

Feres

Vertical: Transport & Logistics Category: Ride Hailing

Services & Story

- Connects drivers with their own cars to passengers using a mobile app or short code.
- Very popular among drivers because of their low commission rate
- Revenue Source: 10% commission

Unique Offerings:

- Popular among drivers because of the 0% commission fee during promotional period and the subsequent competitive commission rate
- Offers 5% Feres bonus points to customers that can be converted into cash, airtime or donations.
- Accepts mobile payments using E-Birr

Overview

Service Provider: Feres Technologies

Launched: 2020

Service: Ride Hailing

Activity Indicators:

- 100,000+ app downloads
- Has been among the fastest growing ride hailing apps both in number of drivers and customers

Future Plans:

- Expanding into food delivery and e-commerce 'Feresegna' in 2021 and plans to provide delivery service to other cities within Ethiopia

ZayRide

Vertical: Transport & Logistics Category: Ride Hailing

Services & Story

- Connects drivers with their own cars to passengers using a mobile app and call center.
- Revenue Source: 10% Commission; Software Development (BPO); Bank partnership for car financing
- Major Challenges: Access to capital

Overview

Service Provider: Zaytech IT Solutions

Launched: 2016 by Habtamu Tadesse

Service: Ride Hailing, delivery

Activity Indicators:

- 100,000+ app downloads
- 10,200 drivers (60% full time)
- Owns a fleet of 150 cars

Future Plans:

- Considering expansion to some African countries, utilizing their technology platform.

Deliver Addis

Vertical: Transport & Logistics Category: Delivery

Services & Story

- Business Model: Links restaurants with consumers through a mobile app & web platform; processes orders; delivers and collects payments;completes weekly settlement with merchants.
- Revenue Sources: Delivery Fee; Commission from Merchants
- Challenges: Internet shutdowns; Payment; Food Supply Chain

Funding:

- Funded in part by Renew Strategies in 2017

Overview

Service Provider: Road Runner Technology Solutions

Launched: 2015 by Feleg Tsegaye

Service: Food Delivery

Activity Indicators:

- $200,000 gross monthly order value
- >50 motorbikes in their fleet
- 150+ Restaurants available for ordering

Future Plans:

- Visa & Mastercard accepted soon

Hope Entertainment

Vertical: Sector Tech Category: Digital Media

Services & Story

- Produces and distributes music videos via YouTube
- #1 YouTube channel in Ethiopia

Activity Indicators:

- 1.4 Billion Total views and
- 1.6 million subscribers
- 20-30million monthly views

Overview

Service Provider: Hope Entertainment PLC

Launched: 2010

Service: Music Video Streaming

DireTube

Vertical: Sector Tech Category: Digital Media

Services & Story

- Video streaming service through their website (www.diretube.com) and YouTube channel

Activity Indicators:

- 142million views on YouTube
- 477k subscribers on YouTube

Overview

Service Provider: Hobinet Media PLC

Launched: 2008

Service: Video Entertainment

Sodere

Vertical: Sector Tech Category: Digital Media

Services & Story

- Video content provided through their website, satellite, YouTube and other streaming services like Roku, Apple TV, Samsung TV, fireTV and others.
- Provides subscription service for $12 per month or $120 per year.

Unique Offerings:

- Sodere Store (e-commerce) operates in Ethiopia, U.S., Canada, Germany and the UK.
- Forwards items from Amazon or other e-commerce sites to Ethiopia from the U.S.
- They support international credit cards, Amole, HelloCash, MBirr or bank deposit.

Activity Indicators:

- Around 3mln YouTube views on monthly basis
- 414k YouTube Subscribers

Overview

Service Provider: Sodere

Launched: 2011

Service: Video Streaming

Awtar

Vertical: Sector Tech Category: Digital Media

Services & Story

- Music Streaming and downloading app that shares profits with artists.
- Helps to alleviate music piracy, supports musicians and provides access to listeners.
- Songs and albums can be purchased with airtime from Ethio Telecom

Activity Indicators:

- 90k+ app downloads

Future Plans:

- Will introduce music-streaming service in the near-term.

Overview

Service Provider: Awtar Multimedia PLC

Launched: 2011 by Ethiopian artists Elias Melka, Haile Roots, Jonny Ragga and Dawit Nigussie

Service: Music Streaming & Download

Tikvah

Vertical: Sector Tech Category: Digital Media

Services & Story

- The leading digital channel dedicated aggregating local news on Telegram and recently expanding to Website.
- Has branched to additional channels such as Tikvah-University, Tikva Sports
- Very popular among university students and young age groups
- Also, curates crowd-sourced news
- Recently started selling ads

Activity Indicators:

- 1.1 million subscribers
- Up to 300K views per post in 24 hours
- Monetizing platform via paid ads which are increasingly being placed by local companies

Overview

Service Provider: Tikvah-Ethiopia

Launched: 2012

Service: Local News Content Curation

HuluSport

Vertical: Sector Tech Category: Sports Betting

Services & Story

- One of the most popular online sports betting platforms hosting bets on local and international football matches

Activity Indicators:

- 24k average daily unique website visitors
- It has over 100K registered users on its platform and largest network of outlets
- 7k Daily bets with a minimum value of 50birr each

Overview

Service Provider: Hulegeb Online Solution PLC

Launched: 2017

Service: Sports Betting

Orbit Health

Vertical: Sector Tech Category: Health-Tech

Services & Story

- Health Management Systems that manage health facilities and patient records.
- Custom build software, then implement and provide maintenance with an annual fee.
- Orbit operates an Innovation Hub and business accelerator in partnership with MasterCard.
- They also run Orbit Academy, providing digital health literacy training and soft skills training.

Funding:

- Bootstrap and Closed Seed Fund (2020) (institutional angel investors and individuals)
- Partnership with MasterCard on Innovation Hub

Overview

Service Provider: eHealth IT Services PLC

Launched: 2016

Service: Health Systems

Activity Indicators:

- Provides software for 4 government hospitals, 4 health centers and 5 private facilities
- Digitized over 600k patients' records
- Incubated 6 digital startups in first cohort

Future Plans:

- Expanding into many more public and private health facilities
- Launching a B2C platform to directly impact patients
- Launching a Health Wallet, health FinTec solutions
- Launching second cohort of 15 digital startups
- Raising Series A funding, to impact 1.5 Million patients by end of 2021

Farmer Hotline

Vertical: Sector Tech Category: Agri-Tech

Services & Story

- '8028' short code sends voice messages to farmers who may not be literate. Messages guide farmers on best practice, or advise them during events of drought, pest or disease.

Activity Indicators:

- 2m alerts over four years
- 150k farmers use TERRA, >3k farmers receive weather info
- 5.5 million Registered users
- From 2014-2019, boosted farmer production by 4.6 million quintals per ATA information

Overview

Service Provider: Agricultural Transformation Agency

Launched: 2014

Service: Information Services for Farmers

VAS Services

Vertical: Sector Tech Category: Agri-Tech

Services & Story

- Most of the services are short codes that can be subscribed to by mobile phone users, which in turn provide information on various sectors such as health, sports, agriculture, employment, music, personal development, news and various other topics.

Activity Indicators:

- Gross merchandize value estimated at Birr 648million in 2020
- Birr 389million estimated net revenue for VAS operators

Overview

Service Provider: Multiple (150+)

Service: VAS Short codes providing entertainment, news and other information and services via SMS.

IceAddis

Vertical: Ecosystem Services Category: Incubator

Services & Story

- The first innovation hub and incubator in Ethiopia, IceAddis has been active in building the startup ecosystem through providing CoWorking space, incubation and acceleration, organizing events and facilitating investments.

Activity Indicators:

- 160+ entrepreneurs supported
- 45 startups incubated
- 31 startups accelerated
  75+ products launched
- Hosted 300+ events, bootcamps and hackathons
- 10,000 community members
  25 startups incubated 3 ventures invested in

Overview

Service Provider: IceAddis

Launched: 2011

Service: Innovation Hub & Incubator

Gebeya

Vertical: Ecosystem Services Category: Tech Talent/ Skills

Services & Story

- G-Talent: Provides remote or on-site tech talent for short term rates
- G-Staffing: Long term hires
- G-Made: Tech talent for a specific project
- G-Training: Technical skills training

Activity Indicators:

- 600 Tech Talent trainees graduated
- >66% of graduates were placed in startups around the world
- $2mn funding in 2020 through seed investors
- $500k grant from IFC for female software developers scholarship fund
- Acquired Coders4Africa on July 24, 2018

Overview

Service Provider: Gebeya Inc.

Launched: 2016

Service: Tech Talent/ Skills, BPO, Training

Perago

Vertical: Ecosystem Services Category: Software

Services & Story

- Major success is the provision and maintenance of e-government portals business.gov.et and eservices.gov.et. These portals and their underlying systems provide several services:
  - o Information for public on government services and platform for citizen feedback
  - o e-service platform for all government agencies
  - o ID Renewal and application for Diplomats
  - o Payment integration
  - o Business Process Management tools for government agencies
  - o Government procurement platform (bid management, procurement lifecycle)
  - o Public sector performance management platform
- Software is licensed by the ET Government via Ministry of Innovation & Technology (MINT)

Activity Indicators:

- 10 active government agencies on the platform
- 7 active pilots for government procurement platform
- 90k active users
- Ministry of Foreign Affairs services are completely virtual

Overview

Service Provider: Perago Information Systems

Launched: 2013

Service: Software (e-government)

Viditure

Vertical: Ecosystem Services Category: e-Government

Services & Story

- Uses their patented Video-Signature (Viditure) technology to provide e-government services to Ethiopian Diaspora through two main products.
- E-POA: Digital power of attorney service that processes power of attorney forms through a mobile app and then digitally facilitates the process with government agencies.
- EE-ID-Renewal: Provides origin ID and Passport renewal for diaspora through a mobile app.

Funding:

- Funded by equity investors

Overview

Service Provider: Viditure

Launched: 2015 by Kebron Dejene

Service: E-Government services for Diaspora

Activity Indicators:

- EE-ID-Renewal: Integrates operations of the Ethiopian Embassy, Ministry of Foreign Affairs, INVEA (vital documents agency) and Ministry of Finance to offer a simplified and digitally enabled ID service for Ethiopians in the diaspora.
- E-POA: Enables Ethiopians abroad to provide a power of attorney for a wide range of documents. Customer base growing substantially since launch of service given ease of use and time savings involved.

Future Plans:

- Expand to other diaspora-centered services including other African markets.

SECTION 4: Cross-country standing and perspective

Key points

- **Seen in a cross-country perspective, Ethiopia stands out for its very low uptake of digitally-enabled services across key segments—including in finance, retail, transport, and government services.**
- **In addition, Ethiopia shows a relatively smaller set of 'digital disruptors' that are addressing major bottlenecks and frictions within the local economy—in contrast to several other African countries where digital disruptors have done just that by, for example, significantly improving food production value chains or helping relieve SME credit problems.**
- **The cross-country experience points to innovative digital-based solutions that are well suited to address some significant consumer/citizen 'pain points' and business bottlenecks. In the Ethiopian context, these would include addressing: difficulties in easily effecting payments (P2P, P2B, P2G, G2P); limited credit availability for SMEs and for personal loans; inefficient food distribution value chains involving multiple and costly layers (rural to retail); poor information bases for buyers and sellers of various goods/services (jobs, homes, personal goods), limited and low quality options for a range of *localized* personal services (education, health, entertainment), and bureaucratic and time-consuming dealings with respect to government services (utility payments, permits, certifications, etc).**

Reflecting its low digital connectivity figures, Ethiopia is very far behind in the uptake seen for a range of digitally-enabled services across key economic sub-sectors, including finance, retail, transport, personal services and government services. Cross country indicators show, in particular, very low levels of local relevance of currently offered digitally enabled services and thus (if looking at the glass half full) points to huge opportunities to build such offerings over the coming years (Figure 4.1).

Table 4.1: Digital Economy Indicators and Services Uptake Across Countries

	3G access per 100 persons	4G access per 100 persons	Telecom Towers	Telecom Towers per SIM	Network performance*	Consumer Readiness index*	Contents and Services Local Relevance*
Ethiopia	12.0%	0.1%	7,300	5,424	24.2	32.4	18.5
Kenya	42.6%	18.2%	8,070	6,760	41.2	59.6	45.4
Nigeria	33.5%	12.7%	32,069	5,367	32.7	50.8	36.8
Sudan	19.6%	0.8%	…	…	…	…	…
South Africa	…	…	33,837	2,862	51.5	73.1	61.1

Source: World Bank Digital Foundations Project document, Telegeography.com, mobileconnectivityindex.com, Tellimer Research.
*Note: *Higher score on index indicates better performance*

A review of some of the most exemplary digital disruptors seen in African and emerging market economies shows that they offer solutions that ease typical consumer problems and doing business challenges seen in their particular country setting. A wide range of digital solutions provided to help solve such well-known consumer 'pain points' and business challenges is summarized in Figure 4.2. Most of these have relevance in the Ethiopian context, which points to a range of opportunities that can be addressed in the local market with the right modifications and tailoring to local conditions.

- **In the fintech space,** while Ethiopia's offerings to date have focused mainly on personal payments (and only really air-time purchases and safety net payments), fintech companies in other countries have built up substantial businesses in merchant payment processing, consumer lending, remittances, SME loans, insurance, and investments. M-Pesa offers not just payments but also—in collaboration with banks—

services such as savings and credit (M-Shwari). Giant fintechs in Nigeria (Opay, Paga, Flutterwave, and Paystack) and in Egypt (Fawry) are addressing various segments of the payment system and providing tailored solutions to what were previously major transaction bottlenecks for millions of (mass-market) consumers and merchants. Consumer and SME-focused lending is readily available via offerings such as: MTN's KwikAdvance (South Africa); Branch, Tala, Lendable, Pezesha, FarmDrive, Farmcrowdy (Kenya); Lidya, Carbon, RenMoney, and Migo (Nigeria). Fully digital banks (Telda in Egypt, Tyme in South Africa, and Alat, V Bank, Kuda) are further notable ventures to have fully digitized their customer operations.

- **In e-commerce,** while Ethiopia's e-classifieds businesses have done comparatively well, its marketplace platforms and B2C businesses are still largely sub-scale with no more than a handful of players and daily transactions that—so far—generally do not exceed 50 users for these companies. By contrast, well-established firms such as Jumia have established very high usage numbers in several African countries by successfully solving the marketplace, logistics, and payment challenges involved in e-commerce and in the process building up an African user base of 6.8mn customers, 8mn orders, and $260mn in gross merchandize value (as well as a $1.1bn market valuation following a NYSE listing in 2019).

- **Transport and delivery:** In the transportation sector, while the personal ride-hailing business has taken off in Ethiopia, transportation services for cargo and inter-city transport remain virtually absent.. By contrast, companies such as Sendy in Kenya have built strong business cases in cargo/logistics services, covering in this case over 5,000 businesses and 50,000 registered customers. In other country contexts, exemplary firms such as Ninja Van in India have addressed major gaps in domestic logistics/distribution systems through app based services, in this case processing over 1 million deliveries each day.

- **Sector tech:** Digital and technology solution providers to Ethiopia's main economic sub-sectors remain rare, especially in agriculture, construction, industry and wholesale/retail—which collectively account for about three-quarters of Ethiopia's GDP. For the agricultural and wholesale/retail sector, for example one chronic problem is the very inefficient and costly value-chain involving multiple layers between producer (farmer) and final consumer (retail outlet). Exemplary enterprises in this area, such as Twigga in Kenya, have made some headways in tackling these issues via a B2B food-supply platform that supplies vegetables and fresh fruits sourced from farmers to SME vendors/kiosks directly—allowing for a more efficient/transparent transactions and lower prices/better quality for consumers.

- **Ecosystem services:** While key ecosystem providers are expanding notably in Ethiopia—including for example in software companies and incubators—other aspects of the digital ecosystem are still far from what is seen in peers such as Kenya. Funding providers, for example, remain very limited, especially in the form of small-value, seed, and venture capital funds. Kenya, Nigeria, and South African each have dozens of funders in this area, compared to a handful of active and dedicated entities in the Ethiopian context; all three countries have also been able to attract global VC/PE funders in the last few years, including the likes of Sequoia, TPG, Tencent, and Softbank. In other areas, all-encompanssing digital apps that integrate payments, e-commerce, transport, entertainment and many other consumer services are also one area where one sees much activity in many markets but still absent in Ethiopia. In the local context, some applications with large user bases (say in ride-hailing, payments, and/or delivery) or companies with multiple offerings in their portfolio (e-commerce, payments, logistics) may potentially over time move into 'adjacent' services and possibly achieve 'Super App' status in the local context.

A tabulation of some of the notable and 'exemplary' digital firms that merit attention and potential replication—with local adaptations— in the Ethiopia context are summarized below in Table 4.2.

Table 4.2: Exemplary Companies with Potential Applicability and Relevance for the Ethiopian Digital Economy

Segment	Company	Notes
DIGITAL FINANCIAL SERVICES	M-PESA (Kenya)	■ P2P payments, as well as airtime purchases, remittance receipt, salary payments, and savings/loan products ■ B2P payments include bulk salary disbursements used by many companies. ■ P2B and P2G uses: For merchant purchases, utility/bill payments, government payments ■ Micro-products: Savings via M-Shwari; Micro-insurance via M-Kesho; and micro-credit via KCB Bank ■ Inter-operability between banks for easy movements of funds from bank accounts to mobile wallet ■ Network includes nearly 200,000 Agents, 300,000 merchants, 50K businesses, and $6bn monthly transactions
	MTN (S. Africa)	■ KwikAdvance salary advance via mobile phone
	Fawry (Egypt)	■ Fawry is an Egyptian Electronic Payment Network that offers cash-based payments (mainly for bills) at a large agent network of more than 166K. Also allows for payments via its own app (myFawry), online, using ATMs, and at retail points. It also enables businesses such as small grocery stores, pharmacies, stationaries, and post offices with point-of-sale machines to easily accept payments from customers. ■ It is serving around 30 million customers at 225,000 service locations in 300 cities. It beame the first Egyptian company to reach a market cap of $1 billion in 2020
	Paga (Nigeria)	■ Paga is a Nigerian mobile payment platform that allows its users to transfer money electronically and make payments through their mobile devices. It has over 17 million registered customers and aims to become the "Paypal for ■ Recently expressed plans to expand into Ethiopia and acquired Apposit a local technology company in 2020.
	Opay (Nigeria)	■ Founded in 2018 by Opera, a well-known internet search engine and browser platform, OPay is an Africa-focused mobile payments startup based in Nigeria. It is currently reported to be to raising $400M in Series C funding which would see its valuation above a $1.5B. ■ OPay has reported to be processing around $1.4 billion in payments in October 2020 alone in Nigeria, and that figure jumped to $2 billion by the end of Q4, 2020. Agent network of 300,000 and 2mn mobile wallets as of end-2020.
	InterSwitch	■ Interswitch is a digital payment platform in 2002 in Nigeria. The company offers a number of finance products including its payment cards and Quickteller payment app. It is also present in Uganda, Gambia, and Kenya, and also sells its products in 23 other African countries. ■ It reached unicorn status in 2019 after Visa acquired a minority equity stake in the firm.
	Flutterwave	■ Flutterwave is Fintech company that helps businesses build customizable payment applications through its APIs. it is present in 20 African countries and having an infrastructure reach in over 33 countries on the continent. ■ In 2020, it has closed a $170 million Series C round, funding with a market valuation over over $1 billion.
	Paystack	■ Estbalished in 2015, PayStack is is an online payment gateway that allows merchants to accept credit and debit card payments online from users or customers. ■ It has been acquired by Stripe for more than $ 200 Million in 2020
E-COMMERCE & E-CLASSIFIEDS	Jumia	■ Jumia is an e-commerce platform operating in 14 countries (as of 2019) and provide an online marketplace, logistics, and payment facilities. ■ It has also expanded in to Jumia Travel, Hotel booking, food delivery and payment system. ■ Jumia was listed on the New York Stock Exchange market in 2019 with a market valuation of $1.1bn (first start-up from Africa to list on a major stock exchange). At its peak the company was valued at an African startup record of ■ In 2020, the company has recorded 6.8 million active customers, 8.1 million orders with a gross merchadise value of €231.1 million and €41.7 million in gross revenue.
	Takealot	■ South Africa's largest e-commerce company, with over 2,500 merchants using its platform and 1.8mn shoppers. ■ Its Johannesburg distribution centre houses almost 4 million products at any time and dispatches on average 10,000 parcels every hour.
	Tokopedia [Indonesia]	■ As of December 2020, Tokopedia reported 350mn product listings and 42 digital products. It has over 100mn monthly active users and over 9.7mn merchants on the platform, 86.5% of whom are the first-time
	Lazada [Singapore]	■ An ecommerce company head quartered in Singapore and operating in 6 countries across South East Asia. Acquired by Alibaba since 2016 for a value of $ 1 Billion and which has since made additional investments upto $ 3
TRANSPORT & LOGISTICS	Sendy (Kenya)	■ Sendy is an e-logistics company in Kenya that enables individuals and small businesses to connect with Drivers and request on-demand or scheduled package delivery services anytime, any day, 24/7. ■ Raised over $26.5mn and has recently expanded to Uganda/Tanzania with additional plans to enter West Africa. ■ Works with over 5,000 business and 50,000 registered individual customers . Provides deliveries for e-commerce, enterprise, and freight delivery for a client list that includes Unilever, DHL, Maersk, Safaricom and Jumia. ■ The company uses an asset-free model, with an app that coordinates contract drivers who own their own vehicles, while confirming deliveries, creating performance metrics and managing payment.
	Safe Boda [Uganda]	■ Safe Boda is a ride hailing application that links the user to nearby motorcycle-taxi operators in Uganda.
	Ninja Van [India]	■ Ninja Van is a tech-enabled express logistics company providing delivery solutions for businesses across Southeast ■ Launched 2014, it operates in Singapore, Malaysia, Indonesia, Philippines, Thailand, and Vietnam. It has 30,000 employees, of whom 20,000 are full-time drivers. ■ Currently provides services for over 600,000 companies, processesing over 1 million deliveries each day.
SECTOR-TECH	Twigga (Kenya)	■ Twigga is an agri-tech company that runs a mobile-based B2B food supply platform which supplies fresh fruits and vegetables sourced from farmers in rural Kenya to SME vendors, outlets and kiosks in the country's capital. ■ Twigga bridges the gap in food and market security through an organised platform for an efficient, fair, transparent and formal marketplace. It has 4,000+ Suppliers , 35,000+ Vendors on its marketplace.
	Aerobotics (S. Africa)	■ Agri-tech business spanning 18 countries that utilizes drones and AI technology tools to boost agricultural productivity and disease prevention. They report to have over 100 drone pilots and an additional 80-person team.
	Vezeeta (Egypt)	■ Africa's largest investment case for 2020 ($40mn), Vezeeta operates a leading healthcare booking platform and is a medical practice management software providor in 6 countries (3 in Africa). ■ They host 15,000 doctors on their platform and 9000 professors and consultants, covering more than 40 specialties.
ECOSYSTEM SERVICES	Y Combinator	Although US-based, this accelerator has worked with several dozen African start-ups including Flutterwave and Paystack. Avion, a company which provides drone-based delivery of medical supplies, became first Ethiopian firm to join Y Combinator network, with $150K of funding.
	Co-Creation Hub	Nigerian hub that provides networking and mentoring that has provided support to many prominent start-ups
	Partech	A venture capital provider active in making digital and tech investments across the continent.
	SuperApps	Super Apps combining a variety of digital service offerings including payments, e-commerce, transport, entertainment and much more are dominating the digital ecosystem in various countries. These include: Alibaba, Wechat, and Meituan in China; Gojek in Indonesia; Grab in South East Asia; Sea in Singapore; Mercado in Latin America; and Tinkoff

Sources: Cepheus Research compilation based on information from companies, press reports, and market sources including Tellimer Research and Renaissance Capital.

SECTION 5: Funding environment

Key points

- **Funding for Ethiopia' digital companies has been very limited to date, though even in this challenging environment we find close to 20 companies having received some form of equity or investor funding. From a cross-country perspective, funding into Ethiopia's 'tech' or 'digital' space is miniscule—which is to be expected in some respects given the status (until recently) of telecom infrastructure, the sector's still nascent phase, and the limited venture capital and private equity focused on the market.**
- **The vast majority of cases funded so far have been in the fin-tech and e-commerce segments. Among the 30 notable cases highlighted in the last section, we find that only a small share have relied on equity and/or grant funding, with most having instead relied on own funds.**
- **For the period ahead, the funding environment should improve substantially over the coming years. Dedicated government-led and donor funds will soon provide as much as $150mn of funding (spread over several years), while some regional/African venture capital firms are also likely to deploy funds towards the Ethiopian digital ecosystem as enabling conditions improve and the sector opens up. Considering all these sources, as much as a quarter billion dollars in funding could be available over the next three years, though this assumes on-going liberalization in the FDI and FX regime.**

Reflecting the still nascent nature of Ethiopia's digital ecosystem, third-party investor funding to companies in this space has been trivial to date—no more than $30-$40mn by our estimates. Most start-ups in the sector have thus relied on own financial resources (including friends and family) and internally generated resources, limiting substantially their ability to scale up to any significant degree. A summary of companies that received funding so far, based on company information and/or press reports, is tabulated in Figure 5.1. By sector, most funding flows so far have been directed to the fintech and transport/logistics sub-segments.

Table 5.1: Digital Economy Companies Receiving Funding in Ethiopia--A Snapshot of Notable Cases

	Company Name	Investor	Notes
1	Across Express	Addis Ababa Angels Network	Transport and Logistics
2	Africa Jobs Network (EthioJobs)	Zoscales Partners	E-commerce
3	Apposit	Paga Nigeria	Acquisition by Paga Nigeria of top local software firm
4	ArifPay	31 investors through Equity shares	Fintech, $3.5 mn
5	Avion	Y Combinator	First Ethiopian firm to get Y Combinator funding; Company provides drone-based delivery of medical supplies, $150k raised
6	BelCash (HelloCash)	Arabica Investments	Fintech
7	ConDigital	The Baobab Network	Construction, $25k
8	Deliver Addis	Renew Strategies	Transport
9	Eshi Express	Addis Ababa Angels Network	Transport and Logistics
10	Gebeya Inc	Partech, Orange Digital Ventures, Consonance	EduTech and training company, $2mn
11	Hulugram	Hulegeb Online Solution PLC and others	Ecommerce
12	Langbot	Injini EdTech Incubator	EduTech
13	MOSS ICT (M-Birr)	European investment Bank	Fintech; $9.8mn equity
14	SunPay	Sunshine Investment Group and other investors	Fintech, $2.5mn (Birr 100mn)
15	ZayRide	Crowdfunding (equity partners)	Transport, Equity funding sourced from ~30 local investors

Sources: Cepheus Research compilation based on information from companies, press reports, and market sources. List is not exhaustive. Data and information on funding sources and amounts also provided by Shega (shega.co).

One notable feature of the funding provided in the Ethiopian context has been in the form of initial seed grants and/or incubation support provided by development donors. This form of funding has not been counted in our tabulation of investment funding in Figure 5.1 but has helped provide initial support to many small figures

at their very initial stages. A compilation of such support reveals close to a dozen organizations providing an estimated $10mn in financial support—often grants—over the past few years (Figure 5.2).

Table 5.2: Donor Funding in the Digital Economy Space

	Donor/Institution	Type of Support Provided & Recipients
1	Mastercard	Supporting a range of digital (and other) businesses including to SME's that are affected by Covid-19 and supporting the shift to e-commerce and digital transformation partnering with several local entities.
2	African Development Bank	Support to EthSwitch
3	British Council	Provides support to incubators such as Ice addis and Xhub
4	Indigo Trust	Supports Innovation Hubs and startups through their Joint Hub Fund
5	UNDP	Supports entrepreneurship initiatives through grant assistance programs
6	Visa	Supporting startups through Visa Everywhere initiative. Cooperation agreement with MINT "to explore partnerships in training capacity building, and digitization opportunities"
7	Li-Way program	Grant support for PayWay Ethiopia as part of a jobs creation program
8	NORAD	Provided a grant to the company 'Africa 118' to provide SME's comprehensive package of digital tools and expertise, including website development. Program targets 3,000 SMEs across 6 countries in Africa including
9	GSMA	Has provided a Grant to Africa 118 to help Ethiopian SMEs build a strong digital presence.
10	Epic Games	has provided a grant to Guzo Technologies to fund the Ethiopian XploreR (Ethiopia XR) project.
11	African Development Bank	Has provided a grant to Ethio Switch for an amount of $ 2.3mn for the modernization of its payments infrastructure
12	European Union	Has allocated a 5 million Euro Grant fund to support to entrepreneurship and micro-small and medium sized enterprises (MSMES) creation (business incubators in the agri-sector and hybrid agri-tech sector) in Ethiopia.
13	German Government	Providing support to the planned digitalization and e-commerce initiatives of the Ethiopian Postal Service

Sources: Cepheus Research compilation based on press releases of donor institutions, press reports , and market sources.

The very small scale of investor funding to digital companies in Ethiopia's case stands out sharply when seen in a cross-country context. The leading African economies showing high investment flows into the digital space including as much as $150-200 million per year for countries such as Nigeria, Kenya, and South Africa—while even smaller economies such as Ghana, Uganda, and Rwanda show annual funding levels of $10mn to $50mn in recent years (Figure 5.4). Funding flows seen in recent years into some specific high-profile and exceptional company cases eclipses even these figures and shows the scope of international investor interest that is possible for businesses with large user bases and growth potential (Figure 5.3 and 5.4).

Table 5.3: Funding Across Selected African Countries in the Digital Economy Space, 2020

Ranked from highest to lowest

	Country	Funding received in 2020, USD mns	Main Sub-sectors
1	Kenya	$ 191.4	Fintech, e-commerce, health-tech, agri-tech, logistics, energy
2	Nigeria	$ 150.4	Fintech, health-tech, e-commerce, logistics, energy
3	Egypt	$ 141.4	E-commerce, fintech, health-tech, logistics, edu-tech
4	South Africa	$ 142.5	Fintech, health-tech, e-commerce, edu-tech,
5	Ghana	$ 19.9	Health-tech
6	Morocco	$ 10.3	Property, A.I., fintech, ed-tech
7	Senegal	$ 9.4	Energy
8	Mali	$ 4.5	Energy, Transport
9	Tunisia	$ 4.0	Transport, IT, edu-tech, e-commerce
10	Rwanda	$ 4.0	E-commerce
11	Ivory Coast	$ 3.9	Media, e-commerce
12	Zambia	$ 3.9	Agri-tech, fintech
13	Tanzania	$ 3.3	Agri-tech, e-commerce
14	**Ethiopia**	**$ 2.3**	**IT, training**
15	Uganda	$ 1.4	Fintech, health-tech, energy

Sources: (1) Disrupt Africa's African Tech Startups Funding Report 2020, (2) BriterBridges Tech Funding Report 2020

Table 5.4: Selected African and EM Digital Economy Companies Receiving Large Equity Investments in 2020

	Company	Amount, USD mn	Remarks--company services and other notes
Fintech			
1	Flutterwave	$ 35.0	Nigerian electronic payments company
2	Kuda	$ 19.0	Nigerian digital bank
3	Bitfxt	$ 15.0	Nigerian cryptocurrency excahnge platfrom
4	Planet42	$ 12.0	South African consumer financing startup
5	Aella Credit	$ 10.0	Nigerian lending platform
E-commerce			
1	Skynamo	$ 33.0	South African B2B 'field sales' management app
2	Sokowatch	$ 14.0	Kenyan B2B e-commerce platform for consumer goods
3	TradeDepot	$ 10.0	Nigerian Factory-to-Retail e-commerce platform for consumer goods
4	Copia	$ 5.0	Kenyan e-commerce platform and last-mile rural delivery service
5	Brimore	$ 3.5	Egyptian e-commerce platform that links manufacturers with resellers
Transport & Delivery			
1	Sendy	$ 30.0	Kenyan on-deman courier and freight service
2	Halan	$ 15.0	Egyptian ride-hailing and delivery startup
3	Elmenus	$ 8.0	Egyptian food delivery service
4	WhereIsMyTransport	$ 7.5	South African mobility data and solutions company for emerging markets
5	NopeaRide	$ 1.2	Kenyan ride-hailing company with an all-electric fleet
Sector Tech			
1	Vezeeta	$ 40.0	Egyptian health-tech company
2	Twigga Foods	$ 29.4	Kenyan agri-tech supply-chain startup that links farmers and vendors
3	mPharma	$ 17.0	Ghanian health-tech company that digitalizes pharmacy services
4	Aerobotics	$ 16.5	South African agri-tech business
5	54gene	$ 15.0	Nigerian health-tech company
Enabling Systems / Other			
1	Komaza	$ 28.0	Kenyan conservation company
2	SunCulture	$ 14.0	Kenyan energy company specializing in solar powered systems for farmers
3	Angaza	$ 13.5	Energy company in Kenya specializing in PAYG solar powered appliances
4	Solarise	$ 10.0	Solar energy company with operations in Kenya
5	Oolu	$ 8.5	Solar energy company with Kenyan operations

Sources: (1) Disrupt Africa's African Tech Startups Funding Report 2020, (2) BriterBridges Tech Funding Report 2020

Looking ahead, Ethiopia's funding landscape for digital disruptors is set to improve markedly in the coming years—and begin to offer a much wider and deeper pool of funds sources. Four distinct groups of funders likely to become main financing providers in the space include: (1) government-led investment and entrepreneurship funds; (2) international donor funds; (3) foreign venture capital and private equity funds; and (4) local investor groups.

Table 5.5: Funding Outlook for Ethiopia's Digital Economy

Publicly-led investment funds

	Name	*Amount*	*Remarks*
1	Khalifa Fund	$100mn	Grant assistance "to boost the capacity of micro, small and medium enterprises, with a particular emphasis given to enterprises in the innovation and technology sectors"
2	Entrepreneurship Fund	~$50mn	Spearheaded by JCC and MINT, a start-up focused fund expected to be run by a management company that screens/selects/funds promising start-up companies
3	World Bank: Co-investment Grants to Digital Start-Ups	$10	Co-investment grants to access risk capital and training/other support to established digital businesses
4	World Bank: Digital Adoption and Inclusion Grants to Digital Businesses	$25	Objective is "to incentivize digital businesses to provide digital economy training and digital devices to suppliers to participate in the digital economy"
5	World Bank: SME e-commerce platform	$6	Objective is to "establish a web-based e-commerce platform that will broaden access to markets for beneficiary SMEs."
6	EU Team Europe Initiative on Ethiopia's Digital Economy	…	Part of an AU-EU Digital 4 Development Hub initiative that will provide technical support, capacity building, and knowledge-sharing to digital economy initiatives

Foreign VC and PE firms

	Name	*Remarks*
1	Venture Capital and Private Equity firms	54 Capital, Ascent Capital, Cepheus Capital, Fairfax Africa Fund, Novastar, Renew Strategies, Roha Group, and other East African and Regional VC/PE funds
2	Direct foreign/strategic investors	Strategic investors already in the industry seeking entry to Ethiopian market

Local funding pools

	Name	*Remarks*
1	Local investor groups	Addis Angels Network, Kazana Group, Kudu Ventures, Start-Up Factory. These generally consist groups of individuals co-investing funds in venture/start-up cases
2	Local corporate groups	Some large corporate groups have started investments with own funds such as Sunshine Group setting up 'Sunpay' payment service provider
3	Local family or group-based investors	Some family based groups are entering direct investments as majority or minority equity owners in new start-ups

Source: MINT, World Bank "Ethiopia Digital Foundations Project" document and "Small & Medium Enterprises Finance Project--Additional Finance".

SECTION 6: Policy Issues and Regulatory Outlook

Key points

- **A range of restrictive policy and regulatory factors have held back growth in the past by imposing high start-up costs, limiting the type of entrants, and restricting the scope of service offerings.**
- **In the last couple years, a number of major policy initiatives and regulatory reforms have significantly eased operating conditions and improved the environment for digital businesses in multiple areas.**
- **While the policy/regulatory framework is the best it has been in years, there remain still significant challenges in the implementation of key regulations while outstanding regulations in a few areas are not yet 'digitally friendly'. Broader macro challenges relating to fx access/convertibility also pose obstacles for some FDI investors and merit attention and action to fully realize Ethiopia's potential.**

Restrictive policies and regulations have long held back the growth of digital businesses in Ethiopia, even separate from the connectivity and cost-related challenges that affected telecom operations in the past. These regulations include those that applied across all private sector business as well as those that specifically targeted segments where digitally-enabled services emerged or might have emerged. A summary of these set of restrictive regulations is summarized below:

Table 6.1: Restrictive Policies and Regulations Affecting Ethiopia's Digital Economy Until Recent Reforms

Topic	Remarks and Notes
General Business Environment challenges	■ Ease of Doing Business Difficulties: Ethiopia ranks 159 out of 190 countries and World Bank's 2020 EODB Report
	■ Long and complex process to open and close a business
	■ Difficulties in accessing credit for small businesses and start-up firms (especially without collateral)
	■ Outdated Commercial Code from 1960
Telecom Sector	■ Lack of competition in the telecom sector due to a state monopoly
	■ Poor network infrastructure to build digital economy
	■ Poor customer service and lack of customer protection
	■ Poor availability, affordability and quality of broadband connectivity
Banking and Finance	■ Restrictive regulations on mobile money that favors bank-led model at the expense of private fintech and telecom operators
	■ Absence of National ID for KYC requirements
	■ Rigid KYC requirements that prevented self-registration for small value transactions
	■ Agents only able to deal exclusively with one service provider which limited utilization of a distribution network
E-commerce	■ Absence of regulatory framework to formally recognize E-commerce operators
	■ Low level of understanding of the e-commerce sector among stakeholders
	■ Absence of customer protection and data privacy for online services
	■ Requirement by revenue authority and central bank to issue physical receipts (thus negating benefits of digital transactions)
	■ Restrictions on foreign investment in e-commerce business
	■ Lack of regulation and standardization of e-taxi service
	■ Lack of coordination among various government institutions that created operational challenges
Innovation	■ Absence of a comprehensive vision for the digital economy
	■ Absence of clear definition and recognition for startups and innovations
	■ Limited funding sources to support startups and entrepreneurship
	■ Lack of incentives for investment into startups

Source: Cepheus Research compilation

Recent policy reforms spearheaded at the highest levels of government have encouraged and initiated a number of transformational changes. These new regulations and directives are summarized in Table 6.2 below.

Table 6.2: Recent Policy Reforms and Their Implications for Ethiopia's Digital Economy

Topic	Remarks and Notes
Ease of Doing Business initiative	■ Improving the ease of doing business has been singled out as one of the priority areas for economic reform in Ethiopia as part of the wide-ranging economic reforms introduced in 2018. There is an initiative led by the Prime Minister's Office that aims to raise the Ease of Doing Business ranking of the country to below the 100 mark.
New Commercial Code	■ The 1960 Commercial Code has been replaced in 2021 with the adoption of Proclamation No. 1243/202. The new Commercial Code is expected to simplify company formations, the ease of doing business, company restructuring, ownership options (including holding companies), bankruptcy management, and executive/board management relationship. Notable
	■ Company set-up eased with reduced processes
	■ One-person company is now recognized
	■ Non-shareholders are permitted to serve as company Directors
	■ Protection of minority investors is now anchored through improved corporate transparency and disclosure, shareholders rights and board responsibility
	■ Registration exemption for small businesses and persons engaged in agriculture and forestry
	■ Recognition of group companies: This section provides for the concept of parent, subsidiary, wholly owned subsidiary, and reciprocal holding of shares.
	■ Website requirements: Every share company is now required to have a website.
	■ Virtual meetings can now be considered official meetings
	■ Introduction of various insolvency procedures other than bankruptcy, and simplified bankruptcy proceeding for SMEs.
New Investment Law and Regulation	■ The new Investment law refreshes the investment framework of Ethiopia with a focus on expanding the scope of investable opportunities for the private sector, including for foreign investment.
	■ Expanded objectives that include: (a) improving the global competitiveness of Ethiopia's economy; (b) increasing export performance; (c) generating more and better employment opportunities; (d) accelerating the inward transfer and diffusion of knowledge, skill, and technology; (e) maximizing linkages between foreign and domestic investments; (f) leveraging foreign capital to promote the competitiveness of domestic investors.
	■ There has been a major shift in terms of sectors open to foreign investment. Whereas the previous system used a 'positive-listing' approach, specifying areas permitted for foreign investment, the updated regulation uses a 'negative-listing' approach whereby all areas not explicitly excluded are deemed open to foreign investors.
	■ New Investment Law allows foreign investment into e-commerce, which opens this space to specialized foreign operators
National Digital Transformation Strategy	■ National Digital Transformation Strategy ('Digital Ethiopia 2025') sets out a vision to realize Ethiopia development goals through leveraging the digital economy.
	■ The strategy aims to enhance Ethiopia's digital readiness by: (a) strengthening existing infrastructure such as connectivity and power; (b) developing enabling systems such as digital ID, Digital payments and cyber security; (c) facilitating digital interactions between government, private sector and citizens through delivery of E-government services and E-commerce platforms; and (d) strengthening the wider digital ecosystem to enhance access to capital investment, human capital and the regulatory environment.
	■ The strategy has also identified four sector-specific pathways to pursuing digital growth in the modern economy, which are: (a) unleashing the value of agriculture, (b) constructing the next version of the global value chain in manufacturing, (c) building IT-enabled services, and (d) focusing on digital as the driver of tourism competitiveness.
Startup Proclamation	■ Ministry of Innovation and Technology (MINT), in collaboration with the Job Creation Commission (JCC), has prepared a Start-Up Proclamation (the 'Startup Act') with the goal of boosting entrepreneurship and innovation by targeted support for startups and innovative businesses who have different needs than traditional firms.
	■ The Proclamation is expected to remove legal registration hurdles that have inhibited innovation and entrepreneurship through providing a 'startup and innovative business' category label that is better suited to digital and tech businesses.
	■ It will establish an Innovation Fund, giving startups and innovative businesses access to dedicated funding and other
National Entrepreneurship Strategy for Ethiopia	■ Set to be implemented between 2020-2025, it will promote an inclusive and functional entrepreneurship ecosystem.
	■ It plans to drive more employment opportunities by focusing on supporting SME entrepreneurs to create >40 million job opportunities, providing technology, finance, and capacity building in the manufacturing sector and urging the public and private sectors to help realize the potential of youth, women, and agricultural entrepreneurs.
E-Transactions Proclamation and Directive	■ Ethiopia has passed a Proclamation on E-Transactions in 2020 to address the gaps in the regulatory framework on the use of electronic means to conduct e-commerce, e-government services and other related activities.
	■Covers electronic trade, taxation, authentication of documents, e-signatures, consumer protection and data integrity.
	■ Establishes a new Digital Economy Council, tasked to promote and facilitate the sector.
	■ Follow-up Draft Directive defines e-commerce operators and sets out requirements to establish and operate e-commerce
	■ Will regulate informal e-commerce activities that take place on social media platforms such as Facebook and Telegram with an obligation for individuals to get a tax identification number.
	■ Outlines establishment of the Electronic Negarit Gazette and Federal Electronic Registers of Laws, Administrative Manuals and Administrative Decisions, which will be published online.
	■ Draft Directive has been circulated to stakeholders and is expected to be passed into law by the end of 2021.
E-Taxi Directive	■ Issued in 2019 by the Addis Ababa Transport Bureau, the directive will regulate the ride hailing service industry.
	■ Following resistance by ride hailing companies and public backlash, this directive seems yet to be enforced.

Source: Cepheus Research compilation

Looking ahead, while the policy and regulatory environment has—on the whole—already become much more digital friendly, some remaining bottlenecks merti continued close attention and reform consideration. This includes constraints within the digital ecosystem as well as broader macro and business environment concerns.

Table 6.3: Remaining Policy/Regulatory Challenges and Areas for Future Policy Reforms

Topic	Remarks and Notes
General Business Environment	■ Implementation of Ease of Doing Business appear to have stalled after initial momentum, and deserve active implementation in the period ahead. There is also some misalignment between government institutions and lower level administration offices. (e.g., setting up a company without a physical office is no longer required by regulations but still not consistently accepted by the revenue authority).
	■ Absence of capital market limits source of funds for companies and investment options for investors. Recent passage of Capital Markets Proclamation promises to improve conditions in this area but speedy implementation will be key.
	■ Minimum FDI requirement for foreign investors remains unnecessarily high and unconducive for digital/tech sector, proving a barrier for startups and entrepreneurs who may only need seed investments of say $50,000 to $100,000.
	■ For some foreign investors, the fx regime and challenges of fx access/convertibility remain strong deterrents. A long-term solution to the fx regime and exchange rate thus remains a priority if Ethiopia's digital ecosystem is to fully maximize the funding opportunities/expertise on offer from foreign investors.
Telecom sector	■ High cost of computers and hardware (partly reflecting tariffs/taxes) limits widespread access & digital transformation
	■ Network quality, while much improved, still shows periodic connectivity, speed and access challenges
	■ Restrictions on private telecom infrastructure operators (e.g. tower companies) limits efficiency gains possible from such services
Banking and Finance	■ Banking sector remains closed to foreign investments, limiting the sector's openness to new services and funding opportunities
	■ Relatively high capital and other extensive requirements for fintechs to acquire a license.
	■ Continued limitations on national retail payment infrastructure and payment interoperability, which was meant to be resolved by Ethio-Switch.
	■ Regulatory institutions capacity remains limited and often a source for delayed responses to new product applications/approvals
	■ Restrictions on mobile money service offerings by new foreign telecom license operations (though this is expected to be lifted within a year)
	■ Absence of regulatory sandbox for new products and services to be piloted.
Innovation and Entrepreneurship	■ Still limited funding options for startups and idea-stage companies
	■ Restrictions on online payments for international purchases continues to be a challenge for startups and entrepreneurs who need to pay for online services such as digital marketing on social media, hosting services or other software.
	■ Competency certificate requirements are a barrier to startups and a hurdle to certain sub-sectors such as gig jobs platforms.
	■ Continued lack of clarity on who would be the regulator for tech enabled businesses, which intersect technology and specific business categories.
	■ Regulations such as the e-taxi directive overlook technology enabled services and place growth inhibiting barriers.
	■ Delays in the commencement of the Start-up Funds and other government funds focused on the digital sector
	■ Delays in issuance of E-transaction Directive (currently in Draft form but not formally passed).
Policy, Regulation and Contexts	■ Digital literacy and skills continue to show gaps that merit policy interventions to be addressed.
	■ Inclusivity remains an issue with a concentration of digital innovations and solutions in urban markets. Such disparity could exacerbate the existing digital divide and risk excluding the majority of the population from the digital transformation.
	■ Policy efforts to encourage digital technologies to where they may be most productive and/or aligned to national economy are missing. Current use cases dominated by usage for social network and entertainment purposes.
	■ Continued gaps in polices, regulations and resources around customer protection, privacy and cyber security.
	■ Anti-competitive practices such as certain utility payments only being handled via the state bank's payment channels

Source: Cepheus Research compilation

SECTION 7: Market size, growth potential, and valuation prospects

Key points

- **We estimate that the size of business activity transacted through Ethiopia's main digital economy companies was near Birr 350bn in 2020 (equivalent to 10% of GDP and $11bn at then exchange rates). This reflects the gross transaction value of transaction flows conducted through digital channels and is dominated by the financial sector which is far ahead of others on digitization; excluding the financial sector, the gross transaction value drops to just Birr 30bn or around 1 percent of GDP, showing the still small size of Ethiopia's digital economy.**
- **Looking ahead, we expect that the gross transaction value of Ethiopia's digital economy will show a 9-fold increase over the next five years, reaching 39 percent of GDP by 2025. Excluding the financial sector, we think the largest sectors by revenue potential will be in ride-hailing, software services, and e-commerce. Seen in terms of strongest growth prospects from current levels, the e-commerce, digital media, and delivery segments look the most attractive. Given their current size, public sector entities are likely to continue to be dominant, though alongside many existing/emerging private enterprises.**
- **Some of the largest firms in the digital finance, ride-hailing, and digital media space could see Birr 1bn valuations in a few years' time, by our estimates. If seen as a stand-alone company and using current valuation metrics observed in comparable cases, *telebirr* could become Ethiopia's first 'digital disruptor' to reach dollar unicorn status (with a $1bn-plus valuation) well before 2025.**

By our calculations, the current size of business activity transacted through Ethiopia's digital disruptors is near Birr 350bn (or $11bn and equivalent to 10 percent of GDP). This reflects the gross merchandise value (or booking value) of business activity transacted through what we have defined to be 'digitally disruptive' companies. A summary of definitions we have utilized is provided in Figure 7.1, while the breakdown of the size of the digital economy by main segments (fintech, e-commerce, transport, sector-tech, and ecosystem services) is provided in Figure 7.2. By gross merchandise value, we estimate the three largest sectors are currently digital finance, ethio telecom's digital airtime distribution plus airtime credit, and ride-hailing; these are followed by sports betting, digital media, mobile-based info-tainment services, e-classifieds, and software services.

Figure 7.1: Current Market Size of the Main Digital Economy Segments in Ethiopia

Ranked by estimated Net Revenue

	Estimates for FY 2019-20, Birr mns		In percent of total	
	Value (GTV)	Net Revenue	GTV	Net Revenue
1 Digital Airtime distribution	13,200,000,000	1,320,000,000	3.8%	25.6%
2 Airtime credit	12,150,000,000	1,215,000,000	3.5%	23.6%
3 Digital Finance	318,643,200,000	796,608,000	91.1%	15.5%
4 Ride-hailing	3,942,000,000	394,200,000	1.1%	7.7%
5 Sports betting	1,200,000,000	300,000,000	0.3%	5.8%
6 E-classifieds/marketplaces	…	260,460,000	…	5.1%
7 Telecom Value Added Services	648,000,000	259,200,000	0.2%	5.0%
8 Software companies	…	240,000,000	…	4.7%
9 Delivery	…	180,000,000	…	3.5%
10 Digital media	…	153,600,000	…	3.0%
11 Business process outsourcing	96,000,000	19,200,000	0.0%	0.4%
12 E-commerce	84,000,000	8,400,000	0.0%	0.2%
13 Paid digital entertainment	600,000	300,000	0.0%	0.0%
GRAND TOTAL, Birr:	**349,963,800,000**	**5,146,968,000**	**100.0%**	**100.0%**
Total, % GDP:	**10.4%**	**0.2%**	**…**	**…**
Total, USD:	**$ 9,721,216,667**	**$ 142,971,333**	**…**	**…**

Source: Cepheus Research estimates based on volume/value activity indicators compiled from interviews with market participants, data from specific companies, Ethio Telecom statistics, and press reports.

Figure 7.2: Main Assumptions for Baseline Market Size Estimates of the size of the Digital Economy

1	**Ride-hailing**	
	A. Active taxis per day	9,000
	B. Trips per day	10
	C. Average cost per trip	120
2	**Delivery**	
	A. Monthly active users	75,000
	B. Avg no of orders per active user per month	4
3	**Digital Finance***	
	A. Number of active users	9,600,000
	B. Avg transactions per active user per month	2
	C. Avg transaction value	1,383
4	**Digital Airtime Distribution**	
	A. Number of active subscribers	44,000,000
	B. Percent digital airtime buyers	25%
	C. No of buys per active user per month	4
	D. Avg buy amount per use	25
5	**E-commerce**	
	A. No of active users	7,000
	B. No of purchases per active user per month	2
	C. Avg size of purchase	500
6	**E-classifieds / Marketplaces**	
	A. No of paid posts monthly across all platforms	5,000
	B. Avg revenue per paid post	400
7	**Digital Media**	
	A. Page views per month across all platforms	300,000,000
	B. Avg Birr cents per ad	4
8	**Paid Digital Entertainment**	
	A. Number of active users per month	5,000
	B. Revenue per active user per month	10
9	**Sports betting**	
	A. Total bets placed per month	1,000,000
	B. Average bet value	100
10	**VAS with Ethio Telecom**	
	A. VAS users as percent of telecom subscribers	15%
	B. Number of active VAS users	6,750,000
	C. Average uses per month per active user	4
	D. Fee per VAS use	2
11	**Airtime credit**	
	A. Airtime credit users of telecom subscribers	30%
	B. Average uses per month per active user	3
	C. Average credit amount per use	25
12	**Business process outsourcing**	
	A. Active BPO & Skilled IT resource providers	200
	B. Avg revenue per resource per month	40,000
13	**Software services**	
	A. Active Software Service Providers	100
	B. Avg rev per software service provider per month	200,000

Source: Cepheus Research estimates

Seen by revenue earned, sub-sectors with the largest earnings largely parallel those with the largest gross merchandise value. The top 3 sub-sectors (digital finance, ethio telecom's digital airtime distribution and ethio telecom's airtime credit) make up around 60 percent of total revenue, or roughly 3bn out of Birr 5bn in estimated net revenue. Other top revenue earning sectors include ride-hailing, digital media and e-classifieds, with market shares of 10 percent, 8 percent, and 6 percent respectively. Excluding public sector entities, we estimate that less than a dozen firms currently earn more than Birr 100mn (~$2.3mn) as revenue from a mainly digitally run business, with most of these limited to ride-hailing, airtime distributors, software services, and digital media.

Projections of future market size

Looking ahead, we take into account multiple and mutually reinforcing drivers of digital growth and adoption over the coming years. More specifically, Ethiopia should benefit from low initial starting positions (unpenetrated markets in most areas), strong macro drivers (good growth, rising incomes), improving infrastructure (being enhanced with new entrant/investments), and a notably improving funding infrastructure.

Reflecting the above, we forecast that the market size for Ethiopia's main digital economy service providers will show a five-fold increase by 2025, reaching Birr 3 trillion or 39 percent of GDP by gross transaction value (Figure 7.3). Among some of the notable elements in our projections, we find:

Figure 7.3: Projected Market Size of the Main Digital Economy Segments in Ethiopia

Ranked by estimated Net Revenue

		Estimates for FY 2024-25, Birr mns		In percent of total	
		(GTV)	Net Revenue	GTV	Net Revenue
1	Digital Finance	2,845,384,814,409	8,644,662,036	94.9%	36.4%
2	Airtime credit	43,059,427,829	4,305,942,783	1.4%	18.1%
3	Digital Airtime distribution	88,953,827,047	3,242,366,996	3.0%	13.6%
4	Ride-hailing	15,475,439,580	1,392,789,562	0.5%	5.9%
5	Digital media	…	1,134,329,250	…	4.8%
6	E-classifieds/marketplaces	…	1,033,293,215	…	4.3%
7	Software companies	…	1,018,462,366	…	4.3%
8	Delivery	…	1,009,792,141	…	4.2%
9	Telecom Value Added Services	1,957,058,035	980,072,304	0.1%	4.1%
10	Sports betting	3,103,657,289	775,914,322	0.1%	3.3%
11	E-commerce	1,151,179,634	146,922,934	0.0%	0.6%
12	Business process outsourcing	347,513,050	88,704,900	0.0%	0.4%
13	Paid digital entertainment	4,728,228	2,364,114	0.0%	0.0%
	GRAND TOTAL, Birr:	**2,999,437,645,101**	**23,775,616,924**	**100.0%**	**100.0%**
	Total, % GDP:	**38.6%**	**0.3%**	**…**	**…**
	Total, USD:	**$ 54,141,473,738**	**$ 429,162,760**	**…**	**…**

Source: Cepheus Research projections

- By gross transaction value, digital finance eclipses all other sectors, given the size of financial flows that are enabled by digital channels. We estimate the gross transaction value for digital finance will reach close to Birr 3 trillion in value from only around Birr 300bn at present, a 9x increase over five years. We also estimate that the highest share of revenue, at around 36 percent of the total, will be captured by digital finance services (Figure 7.4a) by 2025.

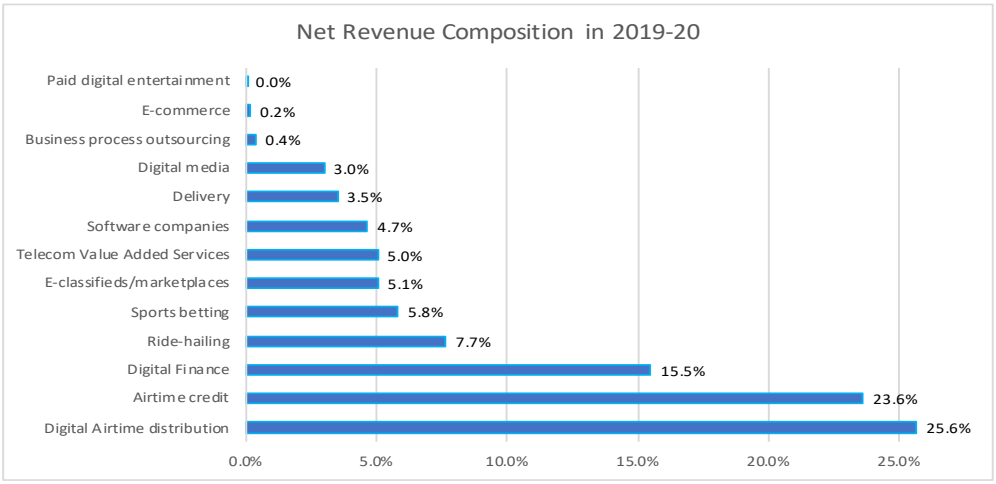
- Given initial starting positions, we expect e-commerce to show the largest growth over the coming years, rising by 17x between 2020 and 2025, largely due to its very small starting base (Figure 7.4b) Based on their size in 2025 vs 2020, the other largest growth areas are expected to be in digital finance (11x increase in the five years), digital media including paid services (8x), delivery services (6x), software/BPO services (4x), and e-classifieds (4x).

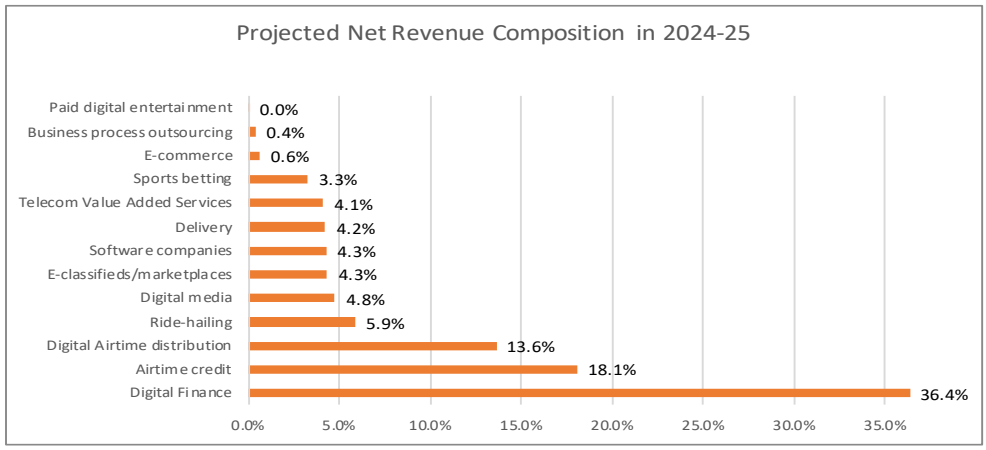
- By revenue earned for the underlying digital businesses, we expect that eight segments will collectively show sector revenue of at least Birr 1bn by 2025, including: (1) digital finance; (2) airtime credit; (3) digital airtime; (4) ride-hailing; (5) digital media; (6) e-classifieds; (7) software services; and (8) delivery services.

- By our estimates, some of the dominant companies in their respective fields, especially in digital finance, ride-hailing, and digital media space, could see Birr 1bn valuations in a few years' time, reflecting revenue levels that will rise to the range of Birr 200-500mn and EBITDA levels in the range of 50-100mn.

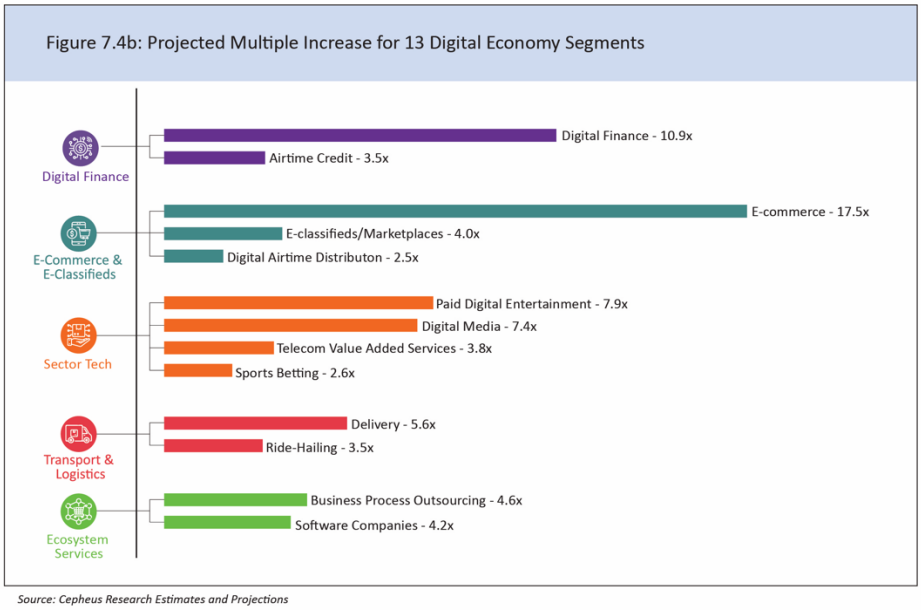
- Using current valuation metrics applicable for comparable cases, *telebirr* could become Ethiopia's first digital company to achieve dollar unicorn status (with a $1bn-plus valuation) well before 2025 (Figures 7.5 and 7.6). This reflects recent targets announced by Ethio Telecom to raise the *telebirr* user base from 21mn in the first year to 34 million by the fifth year, alongside increases in gross transaction values to Birr 69.bn ($1.5bn) and Birr 3,600bn ($54bn) respectively. Assuming 0.6 percent net revenue margins on the gross transaction values and using current valuation multiples for Africa's largest telecom/mobile money operator suggests *telebirr's* USD valuation could surpass $1bn by 2025 (at then exchange rates).

Figure 7.4a: Baseline Market Size and Projected Size in 2025 for 13 Digital Economy Segments





Source: Cepheus Research Estimates and Projections



Source: Cepheus Research Estimates and Projections

Table 7.5 Telebirr Projection and Comparisons to Current Mobile Money Platforms in African Countries

	MPESA (2020)	MTN Mobile Money (2020)	AIRTEL Money [2020]	TeleBirr: Year 1 Proj	TeleBirr: Year 5 Proj
Active Users, mn	28.3	46.4	21.7	12.7	20.2
Registered Users, mn	…	…	…	21.2	33.7
Annual Transactions, mns	11,680	6,500	n.a.	710	9,650
Annual Transaction Value, USD mns	$ 204,000	$ 152,000	$ 46,000	$ 1,487	$ 54,118
Annual Transaction Value, Birr mns	…	…	…	69,600	3,510,000
Transaction Value per user per year, USD	$ 7,208	$ 3,276	$ 2,120	$ 117	$ 2,679
Revenue per user per year, USD	$ 27.0	$ 17.7	$ 18.5	$ 0.7	$ 16.1
Revenue to Transaction value, %	0.37%	0.54%	0.87%	*0.60%*	*0.60%*
Total Annual Revenue from active users, USD mn	$ 764	$ 821	$ 401	$ 9	$ 325

Source: Telebirr projections from Ethio Telecom presentation at launch of service. Data for M-PESA, MTN, and AIRTEL mobile money from Tellimer Research "Mobile Money in Africa" June 2, 2021 report. Ethio Telecom revenue-to-transaction ratio (0.6%) taken at average of three other African operators.

Table 7.6: Telebirr--Targeted KPIs, Projected Financials, and Valuation Potential Given Comparable Cases

	Year 1	Year 2	Year 3	Year 4	Year 5
Total subscribers, mns	21.2	23.8	26.7	30.0	33.7
Active subscribers, mns	12.7	14.3	16.0	18.0	20.2
Active-to-total subscribers ratio	60%	60%	60%	60%	60%
Gross transaction value, Birr bns	69.6	185.5	494.3	1,317.1	3,510.0
Net Revenue Margin [Assumed]	0.60%	0.60%	0.60%	0.60%	0.60%
Net Revenue, Birr mns	417.6	1,112.8	2,965.6	7,902.8	21,060.0
Net Revenue, USD mns	$ 7.4	$ 18.3	$ 44.9	$ 110.2	$ 270.6
EBITDA Margin	40%	40%	40%	40%	40%
EBITDA, USD mns	$ 3.0	$ 7.3	$ 17.9	$ 44.1	$ 108.2
Net income margin	25%	25%	25%	25%	25%
Net income, USD mn	$ 1.9	$ 4.6	$ 11.2	$ 27.5	$ 67.6
Implied Valuation: Avg of three methods, USD mn	$ 33.1	$ 81.3	$ 199.6	$ 490.3	$ 1,204.1
Based on Price/Revenue ratio, USD mn	$ 35.7	$ 87.7	$ 215.3	$ 528.8	$ 1,298.8
Based on Price/EBITDA ratio, USD mn	$ 28.3	$ 69.4	$ 170.5	$ 418.6	$ 1,028.2
Based on Price/Earnings ratio, USD mn	$ 35.3	$ 86.8	$ 213.1	$ 523.3	$ 1,285.3
Memo item:	*4-year avg*	*2021*			
Safaricom Price/Revenue ratio	4.8x	5.6x			
Safaricom Price/EBITDA ratio	9.5x	10.8x			
Safaricom Price/Earnings ratio	19.0x	20.1x			

Source: Telebirr targets presented at May 11, 2021 launch, Cepheus Research projections, and Tellimer Research data for Safaricom, MTN, Airtel indicators.

Ethio Telecom's projected revenue-to-transactions ratio of 0.6% is based on the average seen for MPESA, MTN, and AIRTEL mobile money operations.

Note, Ethio Telecom's EBITDA ratio was 58 percent in FY 2019-20, while Safaricom 5-year average EBITDA has been 50 percent.

Safaricom valuation ratios taken as proxy for its mobile money segment, given that MPESA now makes highest share of company revenue. Four-year avg ratio used.

"Year 1" for Telebirr is best seen as corresponding to FY 2021-22 given recent start of Telebirr service. Straight-line increase assumed from Year 1 to Year 5.

SECTION 8: Conclusion – Overview of Outlook & Opportunities.

Overall observations on current digital economy offerings:

The above review of the digital economy landscape reveals the following notable themes and trends, namely:

- **Comparative performance**: The finance, ride-hailing, e-classifieds, and digital media segments have been comparatively more successful at building large user bases and ensuring monetization, while e-commerce services and those focused on agricultural, health, and education related offerings have been slow to gain traction.

- **Public vs Private Sector**: Public sector entities and e-government services turn out to be among some of the economy's most successful digital disruptors, including the large state bank CBE (through its mobile banking service, CBE Birr, and near two-thirds share of transactions being conducted digitally); Ethio Telecom (through its digital sales of airtime as well as innovative airtime credit offering), Ethiopian Airlines (by effecting most of its sales via digital channels), and ET Switch (by serving as the backbone for banks to effect ATM/POS inter-operability services among their clients).

- **Local vs FDI:** The vast majority of leading digital companies remain domestic companies, reflecting the dominant role of public sector entities and the restrictions applied—until recently—on foreign investors in some areas. However, new regulations have opened previously closed sectors to foreign investment—the most notable being the ability of foreign e-commerce companies to now enter the Ethiopian market, which could potentially bring significant improvements to the sector with the capital, technical expertise and operational efficiency of large regional/global players in this space.

- **Distribution of companies across sectors**: By numerical count, the sector tech segment (especially in the digital media and info-tainment services) have tended to attract the largest number of companies, while e-commerce, transport/logistics have tended to attract relatively fewer entrants. This pattern appears to reflect the relative ease/difficulty of start-up costs and the complexity of execution across the various business segments.

- **E-government services**, often with private partners, are expanding rapidly but still remain only a fraction of their potential. Among the early offerings in this area with significant uptake include the e-visa service (how handling tens of thousands of visa applications monthly), certain permit cases (construction permits) and certain Power of Attorney and Passport/ID renewal cases.

- **Business model**: B2C business models tend to attract the most entrants though these typically present more demanding requirements, since it calls for addressing a very large consumer base and satisfactorily meeting the service, payment, and/or delivery standards in each particular case. By contrast, serving a handful or few dozen business or government customers, while riskier in terms of client concentration, could be simpler in other ways due to a more limited range of service cases.

- **Foreign exchange earning potential:** Several sub-sets of the digital economy space are showing the potential to earn material foreign exchange earnings. This is most apparent in three areas. First, in e-commerce, where sales of niche high-value products can be made directly to foreign markets. Second, in mobile wallets and payment gateways, whose ability to accept international remittances as well as debit/credit cards can boost transactions/purchases from dollar buyers. Third, in digital media, where there are multiple potential sources of foreign exchange earnings, including as content providers earn

subscription fees for downloading/streaming services, monetize their large viewerships on global platforms such as Youtube, and/or accept direct ads placed by firms paying in foreign currency. In addition, business process outsource (BPO) and freelance jobs for international clients have the potential to generate foreign exchange—a trend already established by several such sites and service providers. Simplifying the ability of local companies involved in these sectors to open fx accounts and moving towards a more market-determined rate would significantly improve incentives in this area and boost overall recorded fx earnings from this space.

- **Purely digital services vs traditional services enabled by digital channels:** The digital space is showing a mix of both purely digital service providers (such as digital media where consumers are serviced directly on their mobile phones or websites) as well as traditional services that are simply enabled/simplified by digital channels (ride-hailing services, delivery).

- **Migration of traditional media to digital channels**: Recognizing the limited reach of their traditional channels, many established TV, radio, and print media outlets are building up their presence on large global platforms to boost their audience, geographical reach, and monetization potential. This includes established names such as EBC, Fana, EBS, radio stations, and most local print media.

- **Informal and unregulated offerings are sizeable part of the digital service offerings in some segments:** Some areas such as e-commerce show a large number of informal, small-scale operators using digital channels to connect buyers and sellers or to provide their own limited set of product offerings. Hence, using social media platforms such as Telegram, Facebook, and Instagram, it is becoming increasingly common to see individuals offering the sale of items such as cosmetics, clothing, household items, and electronics—typically either selling their own stocks or facilitating sales for small shops and small businesses. Such business cases without legal incorporation will limit future monetization potential and of course the likelihood of scaling up.

- **Geographical Concentration:** Ethiopia's digital economy services still tend to be centred around Addis Ababa, though there are notable exceptions in the case of digital financial services (in the Somali Region and in northern regions for social safety net payments), ride-hailing services (in Mekelle and Jigjiga) and innovation hubs around certain public universities such as Adama and Jimma.

- **Type of technology:** By type of technology offered, most of the sector has provided digital software and platforms for facilitating various off-line and on-line businesses. This has been the norm for digital finance solutions (mainly USSD, SMS, and payment applications); e-commerce businesses (mostly web-based or app-based platforms); and digital media (mainly leveraging large global platforms such as Youtube, Facebook, Telegram, Instagram and others). Some more advanced technology applications—such as AI applications and blockchain—are still limited so far, though there are emerging offerings in these areas as well: for example, the Blockchain service provider Cardano is partnering with the Ministry of Education for student IDs and records-keeping, some coffee companies are utilizing blockchain technologies to facilitate tracing, while a Government AI centre has recently been launched as well.

- **Super-Apps:** All-encompassing 'Super-Apps' that combine a full range of 'life-style' offerings under one unified App have yet to emerge in the Ethiopian context, though a few have sought to establish such platforms and some existing or upcoming firms may succeed in doing so. The Super-App phenomenon has taken off in many Asian countries, with networks like those of around Alibaba, WeChat, Meituan, JD.com, Gojeck, Grab, and others offering a combination of payment, direct messaging, ride-hailing, entertainment, travel booking, shopping, e-government services, and many other consumer services.

Outside Asia, such SuperApps have also emerged or are aiming to get established in India (Paytm), Nigeria (GTB Bank's Habari), Russia (Tinkoff Bank), Kenya (mKey), and Latin America (Mercado Libre). The most likely candidates for such Super Apps would include existing entities with large user bases that subsequently move into adjacent service offerings. No such all-encompassing Apps operating under one umbrella have emerged in the Ethiopian context, but a few companies appear to be aiming (or may be suited) to build the local version of such Super Apps, as they are embarking on multiple service offerings from one platform—including names like Kifiya, Hulugram, Meda, and Adarash.

Outlook for the period ahead

The Ethiopian economy is clearly in a "liftoff phase" of its digital journey. New policies have delivered the most conducive conditions seen so far in the space, infrastructure constraints are becoming much less binding, costs are declining (especially relative to per capita incomes), and entrepreneurial and financial resources are flowing into the establishment of varied new digital businesses. In many specific sectors, firms have not even begun to scratch the surface of the potential opportunities. The scope for growth, business expansion, employment generation, and broader macro gains is thus substantial.[6] At the same time, as emphasized by many in the sector, maximizing all of these gains will not be automatic and both the private and public sectors have a vital role to play in each of their respective domains**.** Most notably, in assessing the near-term outlook, opportunities and risks, the following issues strike us as most worthy of attention and action by all involved—including entrepreneurs, investors, and policymakers:

- **Making still further progress on digital ecosystem enablers, including still remaining constraints in infrastructure, the public ecosystem, digital skills, and digital literacy constraints**:

    1. **Infrastructure**: Network connectivity still requires large on-going expansions to widen coverage to reach near 90-100 percent of the population (per norms in say Kenya) and to widen broad band (4G) for better connectivity speeds. This will require large scale investments in towers, fiber lines, and other telecom infrastructure, which will hopefully be forthcoming following Ethio Telecom's part privatization (which will provide an injection of funds) and with new entrants such as the just-announced Safaricom/Vodafon/Vodacom consortium. Enabling the entry of tower infrastructure companies (as is becoming the global norm in the telecom industry) could allow a wider/faster build-up and is worthy of policy consideration. Consideration for usage of some 'global inclusive internet' initiatives—such as Elon Musk's Starlink satellite based offering to start soon in Nigeria—may also be worthy of consideration.

    2. **Digital ID**: A key public sector ecosystem element, already prioritized under the Digital Ethiopia 2025 strategy, is the widespread adoption and usage of a reliable nation-wide Digital ID system. Most sector players have singled this out as an indispensable requirement for the growth of digital services, especially in the financial sector, while the World Bank's recent Digital Foundations project is also providing extensive attention to this. While Digital IDs are being piloted in a few areas (e.g. for Addis Ababa resident IDs), the pace of progress appears slow and a final end-date for this initiative is unclear.

[6] World Bank simulations in the "Ethiopia Digital Foundations Project" document suggest that an extra 1.4 to 1.8 percent of GDP can be realized by implementation of many of the core "Digital Ethiopia 2025" reforms laid out under the Government's strategy document and the Digital Foundations Project (page 104); this is based on the cross-country experience of the correlations between extra broadband penetration on additional GDP growth.

3. **Digital skills**: The level of preparedness in this area is still limited, according to most industry observers. While there are a large and growing number of graduates in fields like computer science and related fields, ecosystem service providers like software companies and innovation hubs still often find it necessary to provide further training and mentoring for new talent.

4. **Digital literacy**: While digital uptake in urban areas is widespread, the need for basic digital literacy is still widespread in non-urban areas and for users to move beyond basic mobile/entertainment usage to active adoption for their financial transactions, educational needs, trading businesses, and other such activities.

5. **Startup Ecosystem:** A conducive policy environment for startups, as already envisaged under the planned 'Start-Up' Act can also accelerate progress in digitization and specifically support SMEs, and thus warrants early implementation in the period ahead.

- **Expediting pending and on-going regulatory and ease of doing business reforms:** Regulatory conditions remain constraining in few areas and could usefully be eased. In particular, some already announced initiatives remain to be put in place: the "Start Up" proclamation, for example, is still pending (it would, among other things, establish a regulatory sandbox for designated "Start Ups"); various government funding schemes have yet to begin operations; and the E-transactions proclamation still needs to be passed. Also, even for some already passed regulations, widespread acceptance by some line Ministries or government organs may not yet be fully in practice (such as e-receipts). In still some other areas, such as data protection and cyber security, the main proclamations and regulations are still not yet in place. At the same time, broader ease-of-doing business reforms remain as important as ever and a need for some greater momentum (following an initial spurt of changes) and continued implementation has also been raised by many sector participants.

- **Ensuring the public sector's dominance in some large digital sub-segments leaves space for the growth of and collaboration with private firms via joint platforms and initiatives.** Like in many other parts of the Ethiopian economy, public sector entities—Ethio Telecom, EAL, CBE, ECX—are key players in the digital economy space. This need not necessarily be at the expense of private enterprises: Ethiopia's banking, insurance and MFI sectors, for example, have long shown rapid growth and thrived alongside a dominant public sector entity in their respective sectors. At the same time, the entry of a fully public sector entity into the mobile money space is rare and indeed there appears to be no such precedent globally. To ensure policies continue to allow private firms to grow/partner/expand alongside public enterprises, multiple parallel initiatives could be indispensable, including some of the following.

    1. **Ensuring open APIs by ethio telecom**: Allowing private applications and systems to easily integrate with the telecom's systems would enable many private companies, including fintechs, to provide value added services on top of the telecom company's data and mobile wallet offerings. This appears to be the approach taken by ethio telecom, and many in the sector report that ethio telecom has emphasized that it is open to working in partnerships with bank and non-bank entities in this regard.

    2. **Enabling private access to Ethiopian Postal Service's e-commerce initiative and distribution networks**: Per the World Bank's recent SME Enterprises Finance Project document, the Ethiopian Postal Service will be piloting an e-commerce service to capitalize upon its 1,200 branches and nation-wide reach. While the entry of this public enterprise may appear to threaten competitive conditions for private sector players in this space, it can be supportive of

and create synergies for private sector firms to the extent that the EPS platform and wide delivery network are indeed leveraged "for SMEs and large enterprises to sell their products and services online and move them across borders".

3. **Opening the options for utility payments**: Enabling the development of bill aggregators to allow–or alternatively ensuring utility companies (telecom, water, electricity) keep open systems to allow–third-parties to integrate for bill information, notification, payment and settlement.

4. **Establishing a Government e-Marketplace**: Establishment of dedicated Government procurement marketplaces, as done in several countries, targeting supplies by local SMEs and large firms.

5. **Completing still-pending inter-operability initiatives**: Ensure EthSwitch finalizes its on-going work to ensure inter-operability across all digital finance providers, so that customers/businesses in any one bank/MFI/wallet system can transfer or perform payments to those in any other bank/MFI/wallet system.

6. **Fully operationalizing the e-government service portal**. While service offerings in this area are now active, only a handful of the full universe of planned services are currently operational. Addressing the still pending cases would be particularly meaningful in easing citizen/business interactions with public service providers. Accelerating the digitalization of government services will have a huge impact on increasing the relevance and usage of the digital economy in citizens' daily lives.

7. **Expanding PPP collaborations with private software developers and providers**: This can expedite deployment and improve service quality, while allowing sector specialists to focus on their particular strengths. The examples of Perago (which provides software services for the e-Govt portal) and Viditure (which offers digital authentication services for Power of Attorneys, Passport Renewal, and Yellow Card renewal) are model cases that could be expanded across a broader range of public sector services.

- **Narrowing the mismatch between Ethiopia's biggest GDP components and current/evolving digital company offerings**. The current set of digital disruptors are largely operating outside the domain of the three most dominant GDP components; namely, agriculture, construction, and wholesale/retail trade. Instead, most of the businesses have concentrated in certain pockets of the service sector (finance, transport, entertainment, etc) while not directly addressing the Ethiopian economy's main economic pillars such as such as agriculture, industry, construction. Ethiopia's four biggest sectors—by GDP composition—are crop production (23% of GDP), construction (21% of GDP), wholesale/retail trade (14% of GDP), and animal husbandry (9% of GDP). These four sectors make up a combined 65 percent of GDP. And yet, the focus of digital disruptors has been concentrated on transport (5%), finance (3%), public administration (4%) and personal services (1%). Seen from this perspective, there is clearly limited digital disruption for Ethiopia's most dominant economic activities. Among the initiatives that might help in this respect are:
    1. Establishing the 'Digital Agriculture Platform' envisioned in the Digital Ethiopia 2025 document to support data based systems for planting, fertilizing, farming, and harvesting;

2. Supporting digital initiatives in a number of 'flagship' agricultural initiatives currently underway, including efforts to boost yields, improve fertilizer use, and introduce tracing for high-value products (such as speciality coffees).
3. Better publicizing the recent change in regulations that permits foreign investors into the Ethiopian e-commerce space, both as start-up companies or as equity investors.
4. Encouraging uptake of innovative solutions such as off-grid solar power for water pumping and cold storage.

- **Prioritizing credit services alongside fintech's already strong focus on improving payments infrastructure:** Despite the commonly held view that access to a bank account is very limited, Ethiopia has actually made significant strides in broadening the geographic/physical reach of the financial system, considering bank, MFI and savings association networks. Indeed, by bank branch count, and as highlighted in recent World Bank analysis, Ethiopia already has one of the highest densities of bank branches in Africa at 8.5 per 100,000 people vs a Sub-Sahara African average of 5 branches per 100,000.[7] Moreover, with nearly 60 million account holders, the percent of the adult population with access to financial sector accounts is likely near 60-70 percent.[8] In short, access or physical proximity to bank/accounts can be said to no longer be a binding constraint for the vast majority of adult Ethiopians; rather, it is the lack of financial products (particularly credit) that is in short supply. At the same time, cash as a means of payment is now considerably reduced following the recent currency conversion and recent central bank limitations on cash usage, implying the scope for digital payments to substitute cash payments is now much more limited.[9] Thus, the significant value-add of 'fintech' companies, in our view, is and should be more on: (1) broadening consumer finance options and (2) providing tailored SME finance (with quick decisions, short/long term maturities as needed, receivables-related financing, etc).

- **Addressing foreign exchange related constraints that—while also affecting the broader economy—weigh particularly heavily on long-term foreign equity investors.** Funding levels seen in just 2020 for digital companies in Kenya, Nigeria, and South Africa were on the order of $190 mn, $150mn and $142mn respectively (per Partech data) for the three big African 'tech giants'. Even smaller countries such as Senegal and Ghana witnessed funding of $9mn to $20mn for the year. These funding levels demonstrate the scale of external investment resources that can be attracted and deployed domestically to the extent that Ethiopia's foreign exchange regime as well as its fx access/convertibility conditions are made more attractive in line with the market-based norms now seen (almost without exception) in other African countries.

- **Capturing the digital economy's potentially vast foreign exchange earning potential should remain a priority,** which for the most part entails further deepening some existing initiatives in this area. These

[7] See World Bank Project Paper "Ethiopia Small and Medium Enterprises Finance Project" (March 2021) available on the WB website.

[8] NBE data for December 2020 show 52.4 million bank accounts and 21.6 million MFI accounts. Assuming double-counting and non-personal accounts make up 35 percent of the total suggests nearly 50 million unique bank account holders, or 73 percent of the 66mn adult (over-15) population. Even if there is possibly some more double-counting than assumed above, the commonly quoted figure—based on the 2017 Findex survey—that "37% of adults have an account at a financial institution" is quite outdated and does not capture very recent developments such as the currency conversion—and large associated account openings—of late 2020 and early 2021.

[9] Per NBE data, cash-in-circulation as of March 2021 stood at Birr 127bn, which is only around 3.1 percent of GDP and close to the minimum that is likely to be needed for individuals/businesses for basic small-value and day-to-day cash transactions. By contrast, there are countries where cash-in-circulation is between 10-20 percent of GDP. Contrary to the common perception, Ethiopia's cash in circulation (i.e. cash outside banks) is and has never that that high seen relative to GDP; it has also not declined much since its level before the currency converstion (3.2% of GDP at June 2020).

include: (1) e-commerce exports as recently started under the *eWTP* initiative and some similar others for niche product categories; (2) Online-based BPO and freelancer services; (3) Labor portals for specialized skills (e.g. healthcare workers); (4) digital media; and (5) Cloud services and data centers able to target clients paying in foreign exchange.

- **Implementing appropriate policy and regulatory frameworks on privacy, safety, and data security of digital platforms, companies, critical infrastructure is also essential**. Most stakeholders emphasized the potential risks and abuses that can accompany the widespread use of digital technologies, and thus noted the need for appropriate mechanisms to be in place to protect personal information, minimize fraud, and address all associated private and safety concerns.

In conclusion, the outlook for Ethiopia's digital economy reveals both a long list of promising opportunities as well as a lengthy policy reform agenda. Ensuring Ethiopia's digital "liftoff" will thus require parallel and complementary efforts by a range of private and public stakeholders. Encouragingly, and as highlighted in this report, Ethiopia is witnessing multiple initiatives and ventures already underway across all key foundational areas, which suggests that a dynamic, digital economy should be very much in prospect well before 2025.

Appendix 1: Acknowledgements

The report has benefitted from the views, inputs, data, and insights of a wide range of stakeholders in the Ethiopian digital economy space—including entrepreneurs, investors, and policymakers. Their time and contributions are gratefully acknowledged, especially in making possible a publicly available report that sheds light on this rapidly evolving sector for the benefit of all stakeholders involved as well as for the broader public.

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Tesfa Gebreab (MyGuzo)
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