

African Market Trends in Technology Services

11 COUNTRY PROFILES
(2nd Edition)



International
Trade
Centre

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ABOUT THE PAPER

This report analyses the tech sectors of 11 African countries and examines factors such as information and communication technology infrastructure, the regulatory environment and the potential impact of the African Continental Free Trade Area.

Key findings include that financial services, healthcare and agriculture offer the most opportunities for tech firms, while large, English-speaking populations and favourable time zones provide export opportunities.

This publication shares insights that will guide companies interested in offering information technology and business process outsourcing services in Africa. The report is also valuable for tech hubs, investors and government organizations looking to navigate the sector across Africa.

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FOREWORD

Information and communication technologies (ICT) have played – and still play – a crucial role in the fast-paced transformation of the African continent. The sector, with the information technology (IT) and business process management (BPM) companies it comprises, accounts for 6%–10% of service exports in most African economies.

Continued growth of the sector is important, and ICT players are certainly motivated and driven to grow. This becomes clear when dealing with African tech players – for instance, when I visited a business process outsourcing (BPO) firm in Accra named e-Services. Eagerness to expand beyond national borders is also there. Companies such as e-Services have huge potential to serve numerous foreign markets and position themselves as IT and BPO experts.

This report shows that many African countries have made rapid advances in mobile phone and mobile internet penetration. However, tech infrastructure in Africa is mostly underdeveloped and the base of IT and BPM suppliers remains narrow, especially in the smaller markets. Moreover, the notion of the digital divide is growing in importance as the gap between developing and developed countries continues to widen. COVID-19 contributed to this gap, slowing the progress that was made in the years before the pandemic.

Tech consultancy Gartner predicted that global IT spending would reach a record \$4.6 trillion in 2023 versus \$3.6 trillion in 2020, led by projected growth of 30% in infrastructure-as-a-service spending. The decentralization and outsourcing of IT services are set to accelerate. This could be a big break for many African economies. The opportunity COVID-19 brought is greater trust in and ‘normalization’ of remote work, which benefits near- and offshoring of IT services even more.

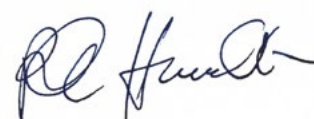
While the digital transformation was accelerating, awareness of climate change issues was, and still is, on the rise. Digital technologies will continue to play an even bigger role in fighting climate change, which brings another opportunity in this sector for African tech companies.

The second edition of this publication reviews the IT/BPM service offerings and conditions in 11 African countries, with three new additions: Ethiopia, Ghana and Senegal. It also examines enabling factors such as government incentives and the regulatory environment. The countries were selected for an overview of tech markets in sub-Saharan Africa because they are representative and they cover all aspects of factors such as maturity and regional diversity. The report finds that trade and retail, financial services, healthcare, telecoms and agriculture offer tech markets the greatest opportunities.

This edition also includes a new chapter on the potential impact of the African Continental Free Trade Area (AfCFTA) on the tech sector. The AfCFTA Secretariat in Accra provided an expert review of the chapter.

The report shows why investing in the tech sector makes economic sense. It consolidates analysis to support business owners eager to make the next export move. The report aims to bring value to small African firms, start-up founders and managers, and governments seeking to stimulate trade in technology services.

This publication has been made possible through a joint effort by the International Trade Centre and Avasant, a global management consultancy. We hope it inspires investment in an ecosystem that allows the African tech sector to grow and prosper.



Pamela Coke-Hamilton

Executive Director
International Trade Centre

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Milou van Bruggen, with support from Kyle de Klerk (both ITC), coordinated the report, which was developed in cooperation with Avasant, a global management consulting firm. Pradeep Mukherjee, senior partner; Srinivas Krishna, partner, UK & EMEA; Pooja Chopra, research leader; and Ranjit Samal, consultant, researched and wrote the report.

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Each of the 11 country profiles includes tables and figures with information on the following:

- Gross domestic product composition
- Key facts about the country
- Highlights on domestic economics and key sectors
- Business development incentives
 - Information and communication technology service export growth
 - Attractive highlights of the technology sector
 - Key cities and technology centres
 - Services offered by leading information technology service providers
 - Talent and employability
 - Telecommunications landscape
 - Broadband landscape
 - Power supply landscape
 - Business registration procedure
 - Regulatory and compliance policies for foreign investors
 - Key trade associations in the technology sector
 - Major industries with high potential to generate demand for IT/BPM services
 - Market access opportunities and potential service areas

The country profiles of Kenya, Nigeria, Ghana, Senegal, United Republic of Tanzania and Zambia also include:

- The contribution of information and communication technology sector to gross domestic product

The country profile of Côte d'Ivoire also includes:

- Networked Readiness Index ranking
- ICT environment subindex ranking

The profile of Nigeria also includes:

- Percentage of start-ups across key financial technology segments in Nigeria
- Telecom market share by technology

The profile of South Africa also includes:

- Telecom sector revenue trends

ACRONYMS

Unless otherwise specified, all references to dollars (\$) are to United States dollars, and all references to tons are to metric tons. Percentages in figures and tables may not add up to 100% due to rounding.

AfCFTA	African Continental Free Trade Area
BPM	business process management
BPO	business process outsourcing
CAGR	compound annual growth rate
fintech	financial technology
FDI	foreign direct investment
GDP	gross domestic product
GNI	gross national income
GSMA	Global System for Mobile Communications Association
HCI	Human Capital Index
ICT	Information and communication technologies
IPRs	intellectual property rights
IT	information technology
ITU	International Telecommunication Union
ITC	International Trade Centre
km	kilometre
kWh	kilowatt-hour
MW	megawatt
NGO	non-governmental organization
OEC	Observatory of Economic Complexity
PAPSS	Pan-African Payment and Settlement System
POPIA	Protection of Personal Information Act
SMEs	small and medium-sized enterprises
UEMOA	West African Economic and Monetary Union
UNCTAD	United Nations Conference on Trade and Development
UNESCO	United Nations Educational, Scientific and Cultural Organization
USAID	United States Agency for International Development
VAT	value-added tax
WEF	World Economic Forum
YoY	year-on-year

Executive summary

The IT and BPM¹ industries have been crucial in boosting the economic growth of developing countries. The ICT service exports of most African economies ranged from 4%–10% of total service exports in 2021, indicating that ICT plays a major role in these nations. Kenya, Côte d'Ivoire and Senegal depend even more on tech: ICT exports accounted for an average of 15% of their total service exports in 2021.

ICT creates many job opportunities for technical graduates, which is vital as education becomes more accessible across the continent and unemployment rates climb.

This study, the second edition of its kind, examines the IT/BPM sectors of 11 African countries: Côte d'Ivoire, Democratic Republic of the Congo, Ethiopia, Ghana, Kenya, Nigeria, Senegal, South Africa, Uganda, the United Republic of Tanzania and Zambia. These countries were selected to ensure a representative overview of sub-Saharan Africa's IT and business process outsourcing markets. Maturity levels and regional diversity were considered during the selection process.

Faced with a growing need to create jobs for youth and reduce reliance on traditional industries such as agriculture, mining and commodity exports, governments are devising mechanisms to promote the technical and digital sectors. At the same time, they are developing ICT infrastructure, skills and service capacity, and providing incentives and concessions for foreign direct investment. The COVID-19 crisis has accelerated the digitization process across the continent.

Smaller countries have further to go on tech infrastructure

While most African countries have rapidly advanced mobile phone and mobile internet penetration, overall ICT infrastructure is not fully developed. The leading economies – Kenya, Nigeria and South Africa – are piloting 5G connectivity and have developed next-generation mobile and digital networks. However, smaller economies still rely on legacy network technologies such as 3G.

Many countries are laying underwater fibre-optic cables and setting up national fibre-optic cable networks. The large African economies have created initiatives such as a national broadband policy to promote ICT infrastructure development. Governments are investing heavily through innovative public–private partnerships (for instance,

with Huawei in South Africa and China International Telecommunication Construction Corporation in Democratic Republic of the Congo) to help the sector advance.

Governments focus on education and training

The annual population growth rate in the countries studied in this report is 2%–3% – well above the global rate of 1%. Youth (15-to-24-year-old age group) lies in the range of 20%–30% of the population in all 11 countries. Given the magnitude of the African population, this translates into a rapidly growing labour pool that will require employment opportunities.

Policymakers are aware of this challenge and are targeting two areas:

- Improving access to secondary and tertiary education
- Training and upskilling graduates

Governments are also adopting measures that encourage the ICT sector and service providers to help develop talent and capacity. For example, companies in Côte d'Ivoire that pay foreigners working in the country must contribute to a vocational training development fund used for apprenticeships and upskilling employees. South Africa has adopted a public–private partnership approach through the Monyetla Work Readiness Programme, which gives participating employers about \$1,150 for each unemployed learner they train.

Competitiveness depends partly on infrastructure

The degree of competition in national IT/BPM sectors tends to mirror the availability of ICT infrastructure in an African country. In other words, tech companies are more competitive when they operate in a place with an advanced IT infrastructure.

The African information technology services market is still evolving. Today, it offers application development and maintenance, infrastructure management and other software solutions. Market activity and sector capabilities are more mature in countries that have developed capacities around

contact centres, omnichannel help desks and customer support services, back-office operations and finance, and accounting process-related services.

The IT/BPM sectors in countries including Cote d'Ivoire, Democratic Republic of the Congo, Senegal, United Republic of Tanzania and Zambia are less mature, focusing largely on voice and non-voice BPM services as well as transactional services such as transcribing, administrative support, e-mail handling and telemarketing. Many freelancers and one-person businesses operate in the BPM sector in these countries.

What sectors offer market access opportunities?

The fastest-growing sectors in the 11 countries are trade and retail, financial services and healthcare. Agriculture has also expanded rapidly and presents opportunities for emerging IT/BPM markets. Table 1 summarizes growing market sectors and corresponding market access opportunities.

Table 1 Opportunities for service providers to enter new markets

Growing market segments	Market access opportunities (service offerings)
Trade and retail	<ul style="list-style-type: none"> ▪ Supply chain solutions ▪ Sales and after-sales support ▪ Help desks and customer care ▪ Inventory management, order fulfilment and logistics management
Banking, financial and insurance services	<ul style="list-style-type: none"> ▪ Banking contact centre services ▪ Finance and accounting services <ul style="list-style-type: none"> – general accounting – accounts receivable/accounts payable – invoice processing and help desk ▪ Software development and maintenance services: <ul style="list-style-type: none"> – customer relationship management and enterprise resource planning systems for bank branches – IT security ▪ Back-office operations
Healthcare	<ul style="list-style-type: none"> ▪ Health and hospital information management services ▪ Telemedicine ▪ Insurance registration and claims systems ▪ Mobile health solutions
Real estate	<ul style="list-style-type: none"> ▪ Real estate accounting ▪ Real estate analytics
Agriculture	<ul style="list-style-type: none"> ▪ Supply chain management applications support ▪ Market information system development and maintenance ▪ Contact centre and helpline offerings for government agriculture departments
General	<ul style="list-style-type: none"> ▪ Omnichannel contact centre services ▪ Traditional customer interaction services across relationship management, customer acquisition and retention ▪ Telesales

Source: Avasant Research

Who should read this report?

The information in this report should prove valuable to a range of stakeholders, namely:

- African, as well as intercontinental, IT/BPM service providers and technology companies seeking to expand in any of the 11 countries covered in the report.
- Tech hubs and start-ups interested in understanding the demographics, ICT infrastructure and digital readiness in these 11 countries.
- Investment promotion agencies and government organizations working to improve the competitiveness of the IT/BPM sector in the 11 countries.

CHAPTER 1

A story of growth

GOVERNMENTS BUILD UP INFRASTRUCTURE 2

THE TECHNOLOGY INDUSTRY IS VERY COMPETITIVE 4

THREE INDUSTRIES DRIVE DEMAND FOR TECHNOLOGY SERVICES 4

A STORY OF GROWTH

Africa was the fastest-growing mobile economy in the world in 2021,² with more than 100 mobile subscriptions per 100 inhabitants in several countries.

- 53% of all mobile money accounts in the world are in sub-Saharan Africa. Thus, mobile-based financial services have a much higher penetration than formal banking.³
- At least 350 million Africans (25% of the total African population in 2021) were connected to the internet by 2021. The total subscriber base is expected to reach 613 million by 2025.
- 5G connections are estimated to reach 40 million by 2025.⁴

Governments build up infrastructure

These figures reflect the efforts of African governments to build ICT infrastructure and the preference of African consumers for mobile technology.

Several underwater network cables connect the continent with the world and African economies with each other. Three networks of undersea cables connect the east coast, the west coast and the Mediterranean region of Africa. These networks have expanded internet access for all African countries, helping to reduce broadband internet costs by as much as 90%.

Zambia introduced its National Long-Term Vision 2030, which targets the ICT sector. South Africa enacted a new cybersecurity law, the New Cybercrime Act, in December 2021. Similarly, several other countries in sub-Saharan Africa have updated their national telecommunication policies and

framed new laws governing cybersecurity, data protection and special economic zones to underpin the growth of the ICT sector.

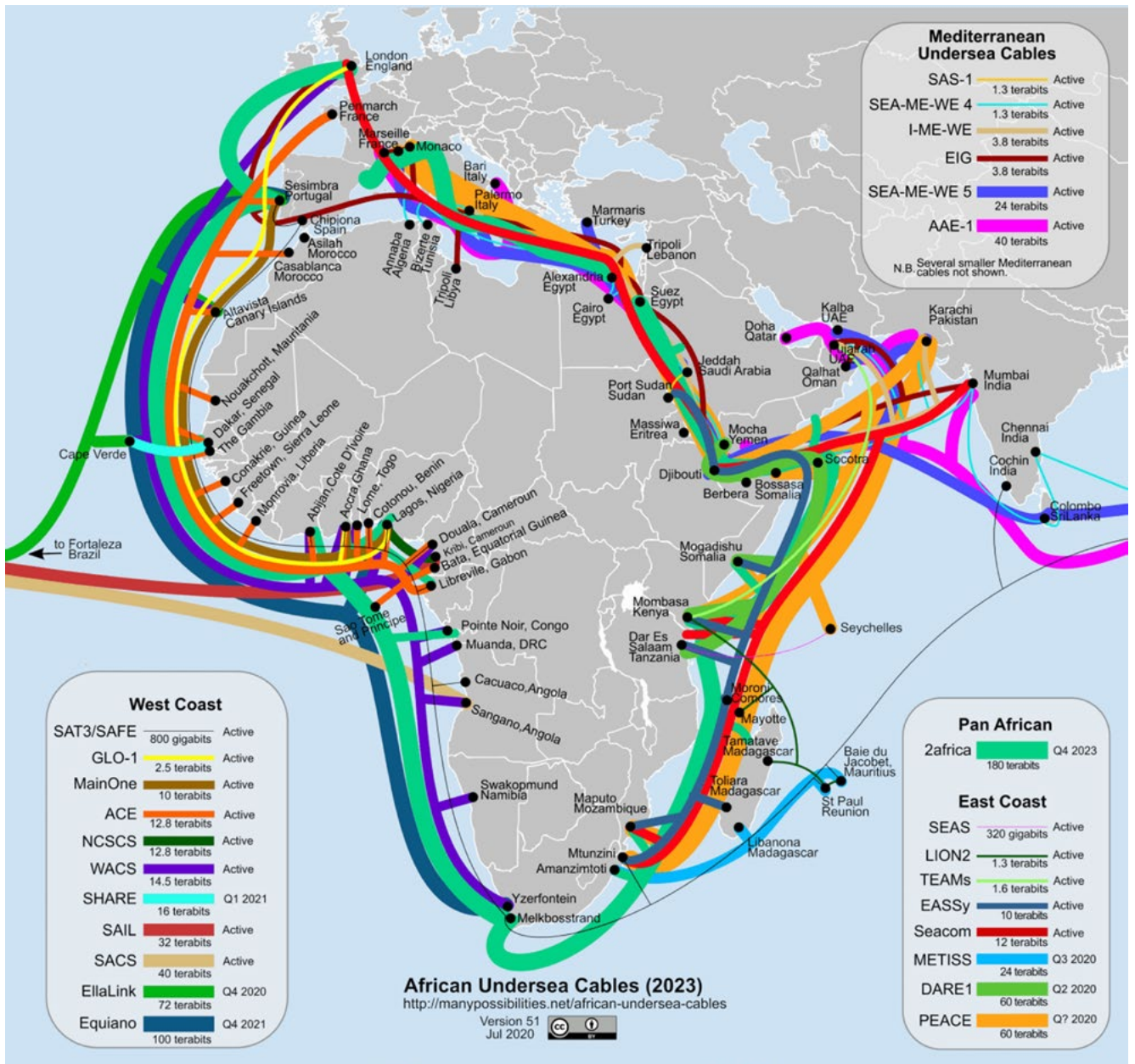
Countries including Egypt, Ghana, Kenya, Mauritius, Nigeria and South Africa have built technology parks to support ICT export-related businesses. For instance, the Government of Uganda is building an ICT tech park on a 17-acre parcel of land near Entebbe airport. The tech park will be built through a public-private partnership.

Number of technology and innovation hubs have expanded across Africa in recent years. In 2019, 640 tech centres were spread across the continent, more than double from 314 hubs in 2016. Most operational tech hubs (90) were in Nigeria, followed by Egypt and South Africa, with 78 and 56 hubs, respectively.⁵

Africa was home to more than 1,000 technology and innovation hubs as of 2021. Nigeria had 164 functioning hubs, of which 149 were local and 15 were foreign, making it the largest technology ecosystem in Africa.⁶ These hubs play a pivotal role in shaping the next generation of information and communication technology (ICT) businesses by acting as incubators, accelerators and workspaces.

Improvements in internet speed and access and growing domestic demand have fuelled the development of data centres, some of which are funded by multinational companies such as Microsoft and Interxion. However, most cloud-based and colocation-based data centres are concentrated in South Africa because countries in other African regions lag behind in terms of internet access, power supply and other essentials.

Figure 1 A map of Africa's undersea cables (2023)



Source: Submarine cable networks press

The technology industry is very competitive

The African IT and BPM industry is highly competitive. Many countries (Ghana, Kenya and South Africa, for instance) are investing to build capacity and attract investment from multinationals.

Other factors positioning the African region well include a favourable time zone with respect to the East Coast of United States, the United Kingdom and mainland Europe, and a young and educated population that speaks English or French.

Almost every African country is home to dozens of small and medium-sized enterprises (SMEs) that are involved in information technology. Some of the top IT/BPM vendors – including Accenture, DXC, Fujitsu, IBM, Infosys, iSon, TCS and Tech Mahindra – serve local clients in Africa.

Many of these vendors also outsource the non-core business functions of their global clients to sub-Saharan Africa. South Africa has a thriving outsourcing industry, while Ghana, Kenya and Nigeria are catching up with a fast-growing ecosystem of tech parks, innovation hubs and a robust support infrastructure.

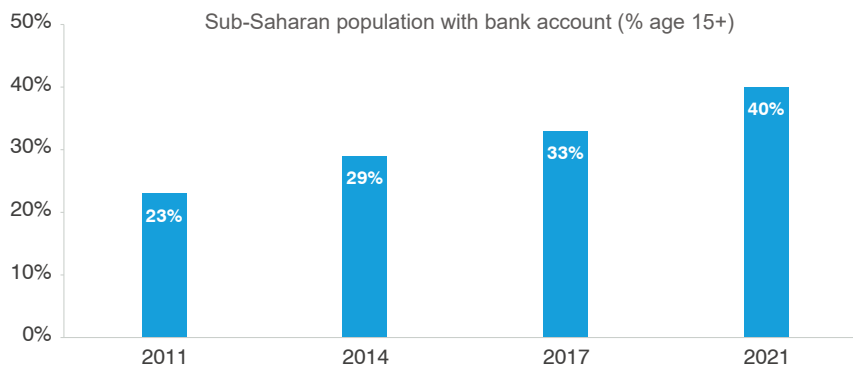
Three industries drive demand for technology services

Three industries are largely responsible for demand in the African IT/BPM industry: banking and finance, telecommunications and healthcare. The fast-growing banking and finance sector needs data management, data storage, security and customer service – which creates sustainable and growing demand for IT/BPM services.

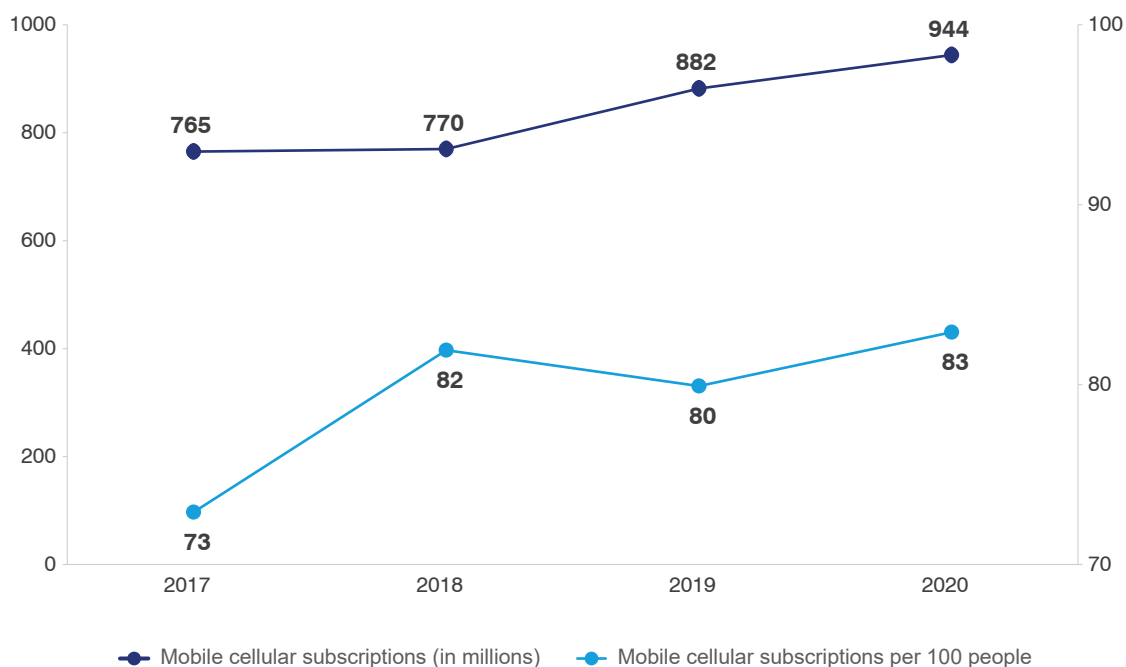
Similarly, the African telecommunications sector is expanding rapidly and is highly competitive, requiring cost-effective technology and business process solutions. The healthcare sector is also growing steadily, and it needs information systems, data centres and customer support to help sustain this growth.

The African banking ecosystem has expanded quickly in the last decade. The number of adults who use or have access to any traditional financial services – known as banked adults – climbed to almost 300 million in 2017 from 170 million in 2012. The figure is projected to exceed 450 million in 2022. In 2021, 606 million mobile money accounts were registered in sub-Saharan Africa, or around one account for per adult, and transactions amounted to \$698 billion.⁷

Figure 2 Growing number of Africans are opening bank accounts



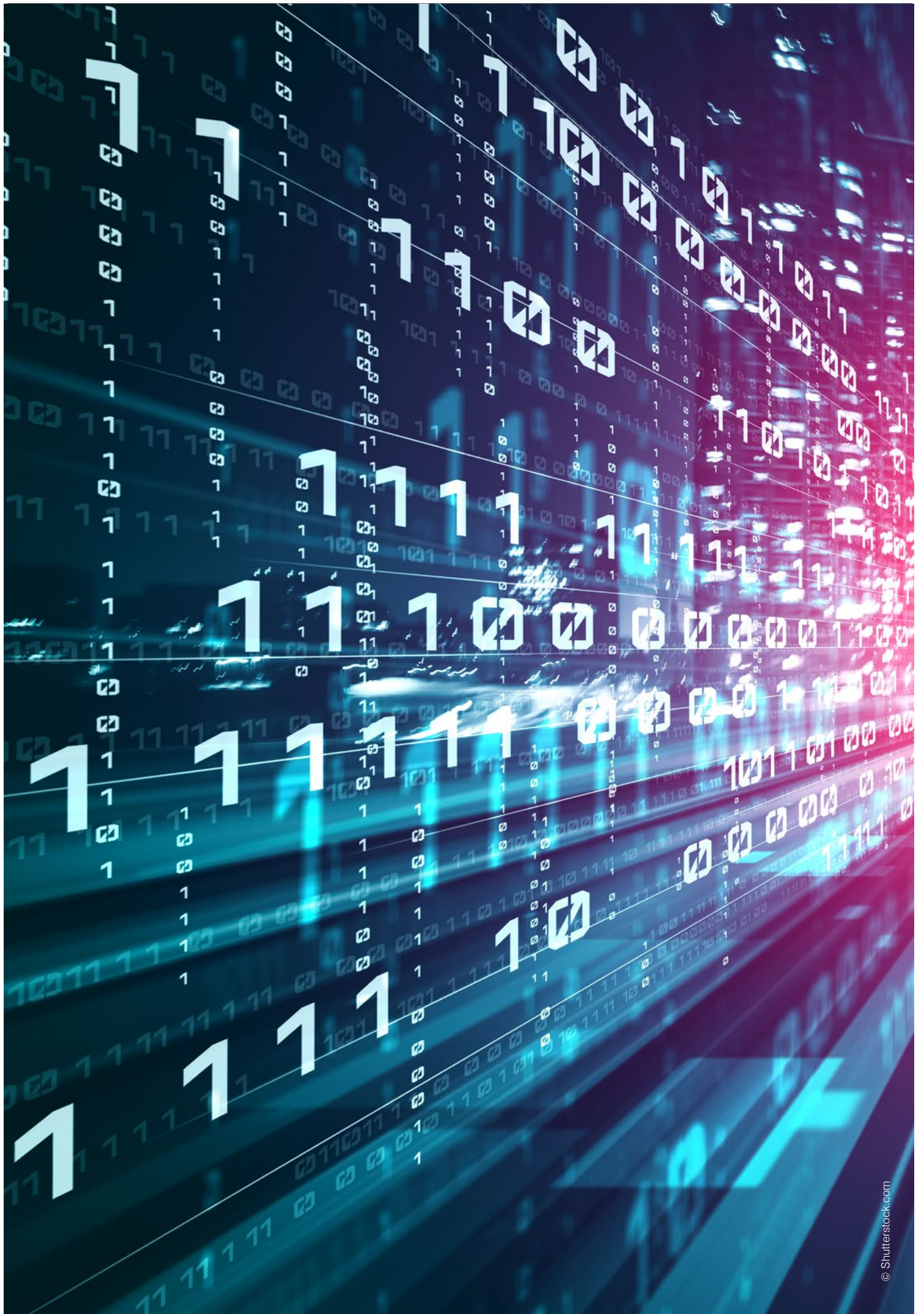
Source: World Bank Findex

Figure 3 Mobile phone subscriptions surge

Source: World Bank ([Mobile cellular subscriptions](#), [Mobile subscriptions per 100 people](#))

This can be partly attributed to the emergence of financial technology (fintech) companies. African fintech start-ups have received more investment than those in other sectors every year since 2016.⁸ The number of tech start-ups in Africa rose to about 5,200 in 2021. Just under half of these are fintech companies, whose goal is to replace and improve conventional financial services. Ghana and Nigeria are expected to see the fastest growth per annum (15% and 12%, respectively) by 2025.⁹ This industry is driving demand for IT/BPM services across the continent, as it has done elsewhere.

The telecommunications sector has also flourished across sub-Saharan Africa. The mobile cellular subscriber base of 765 million subscriptions in 2017 grew 23% to reach about 950 million in 2020. The sector is highly competitive, with multinational players such as Airtel, MTN, Safaricom, Tigo and Vodafone offering mobile services. The rapid growth of the customer base has fuelled demand for IT/BPM services offered by major providers such as iSon, Tech Mahindra and Wipro.



CHAPTER 2

Role of the African Continental Free Trade Area in the tech sector

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ROLE OF THE AFRICAN CONTINENTAL FREE TRADE AREA IN THE TECH SECTOR

The digital sector plays a pivotal role in driving economic prosperity. In its initial stages, the African Continental Free Trade Area (AfCFTA) primarily focuses on facilitating the movement of goods, services and associated financial transactions. This is achieved through the Pan-African Payment and Settlement System (PAPSS), which enables instantaneous local currency transactions within Africa, eliminating the need for conversion into hard currencies.

Furthermore, by harmonizing policies and simplifying data movement, AfCFTA has the potential to accelerate income growth as technology becomes a driving force. AfCFTA offers technology-oriented companies the opportunity to expand their operations across the continent. This expansion will affect various sectors, including digital infrastructure, logistics and energy. For instance, the capacity of hyper-scale data centres in Africa can benefit from the ability to strategically locate these centres in the most cost-effective jurisdictions with the best energy availability.

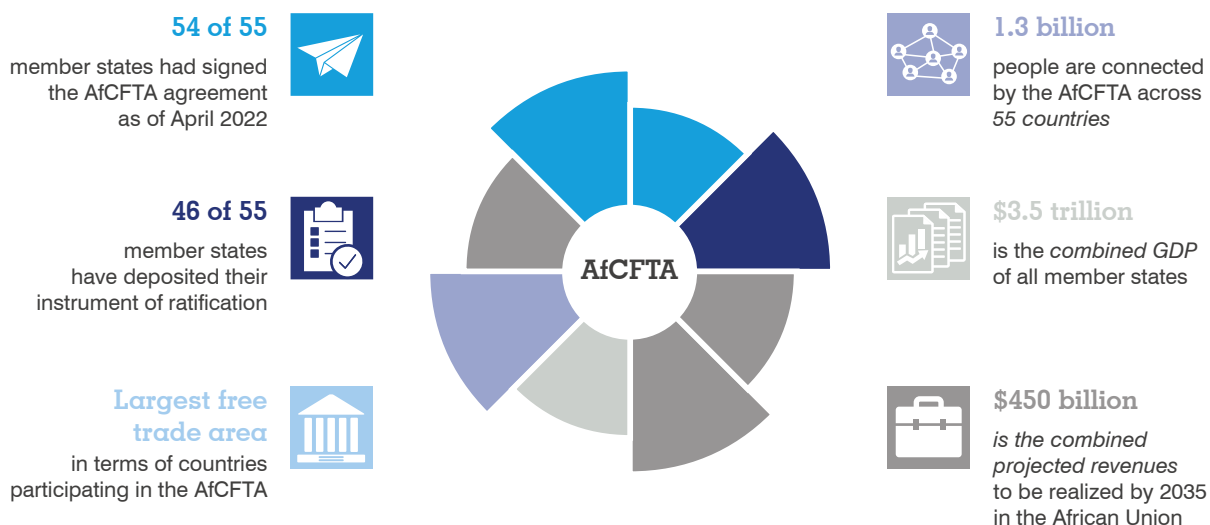
This, in turn, enables the efficient provision of cloud storage services across the continent.¹⁰ In 2020, the African Union Assembly incorporated the Protocol on Digital Trade into

the AfCFTA agreement as a critical component. The primary objective of this protocol is to institute regulations that govern and streamline e-commerce and digital platform trade in Africa. In May 2021, the Council of Ministers of Trade and State Parties formed the Committee on Digital Trade, consisting of representatives from all participating AfCFTA states. This committee supervises and provides direction for negotiations on the Protocol on Digital Trade.¹¹

Overview and key objectives of the agreement

The AfCFTA is a free trade arrangement signed by 54 member states of the African Union. It is a flagship project under Agenda 2063, a structural transformation strategy for the African Union. As a strategic framework, Agenda 2063 is Africa’s blueprint and master plan to achieve its inclusive and sustainable development objective. In its 10-year implementation plan, Agenda 2063 highlights critical actions to be taken to achieve both quantitative and qualitative transformational outcomes for Africa.¹²

Figure 4 AfCFTA agreement snapshot



Source: Avasant Research

AfCFTA is a result of the current 10-year implementation plan (2013–2023).¹³ The agreement establishing the AfCFTA entered into force on 20 May 2019 and its trading terms came into force on 1 January 2021. The AfCFTA Secretariat is based in Accra, Ghana, and Wamkele Mene is the first secretary-general, overseeing the implementation of the agreement.¹⁴

The full implementation of the AfCFTA can transform regional markets and economies and enhance service, manufacturing and natural resource productivity.

Potential benefits of the AfCFTA¹⁵

The AfCFTA is expected to boost intra-African trade by about 33% and cut the continent's trade deficit by 51%.¹⁶ Companies who export to Africa are subject to tariffs that are greater than those on other continents, with an average duty of 6.1%. The AfCFTA will eventually reduce trade tariffs, facilitating intra-African trade and allowing African enterprises to take advantage of the expanding African market.

The AfCFTA is expected to increase the size of Africa's economy to \$29 trillion by 2050.¹⁷ The digital sector is a great driver of intra-African trade. Services such as digital trading platforms and cross-border digital payment services are vital to make the AfCFTA a practical success.

Table 2 AfCFTA has potential to bring many benefits

The expected outcomes of AfCFTA
<ul style="list-style-type: none"> ■ Increase the earnings of nearly 68 million people who make less than \$5.50 a day and lift 30 million Africans out of extreme poverty ■ Increase Africa's GDP by \$450 billion by 2035 while raising global GDP by \$76 billion ■ Increase African exports by \$560 billion ■ Increase wages for both skilled (9.9%) and unskilled (10.5%) workers ■ Stronger trade facilitation would account for \$292 billion of the \$450 billion in economic gains expected from the AfCFTA

Source: World Bank

Role of digital solutions in AfCFTA implementation

Digitization and the use of technology are essential to implement the AfCFTA effectively. However, the continent lags behind other regions in adopting and using digital technologies. For example, just 40% of Africans use the internet.¹⁸ That compares with internet penetration of 64% in the Asia-Pacific region, 83% in the Americas and 89% in Europe.¹⁹

The relatively low internet penetration in Africa is primarily due to the high cost of internet, limited reach in rural areas, connectivity disruptions and a lack of digital skills and literacy. These challenges in the nature and extent of infrastructure on the continent are, to some degree, being addressed through extensive training and digital connectivity initiatives.

However, the good news is that the uptake of internet and digital tools is rising rapidly, which supports the realization of AfCFTA goals. Full implementation of the agreement can transform regional markets and economies and enhance service, manufacturing and natural resource productivity.

There are several cases of how digital technologies act as a mechanism to implement AfCFTA successfully, such as through the AfCFTA Hub and the Pan-African Payment and Settlement System (PAPSS). Adoption, knowledge and use of these platforms can help IT and business process outsourcing (BPO) companies become better able to trade digitally on the African continent.

AfCFTA Hub²⁰



In July 2022, the AfCFTA Secretariat launched a digital trading platform called the AfCFTA Hub as part of efforts to integrate national, regional and private digital applications so African SMEs can expand their markets. Start-ups in Africa qualify for a free AfCFTA number because of the hub, which will help them export goods across Africa through better logistics, an improved network of retail locations and an optimized fintech ecosystem.

The platform aims to develop into a single, trusted directory of the services needed to navigate the AfCFTA, thereby making it potentially one of the most inclusive free trade areas in the world.

Digital platforms²¹



Mobile technology and digital platforms facilitate trade by encouraging digital, financial and social inclusion. These platforms enable small firms to access new markets and provide goods and services that were previously limited due to location restrictions and marketing expenses. They also have other effects, such as strengthening the supply chain.

Many SMEs in developing economies struggle due to a lack of affordable financing options. A joint fintech agenda from the World Bank and the International Monetary Fund urges countries to develop innovative technologies to improve the delivery of financial services. Platform technology can make a major difference here. Increasing digital inclusion can help SMEs take advantage of the AfCFTA's trade incentives.²²

Digital payments



A key focus of the AfCFTA is developing a centralized payment and settlement infrastructure, PAPSS, to support trade and logistics. Africa Export-Import Bank, in partnership with the AfCFTA Secretariat, is leading these efforts. PAPSS allows payment facilitators, such as banks or fintech companies, to make secure and instant payments on behalf of their customers.²³

PAPSS addresses the fragmented payment and settlement systems that have long hampered intra-African trade. Payments used to be made in dollars, but PAPSS facilitates direct exchange between African currencies without using the dollar as an intermediary currency.

More than 80% of African cross-border payment transactions originating from African banks had to be forwarded through foreign banks for clearing and settlement before PAPSS. This resulted in numerous issues, including payment delays, operational inefficiencies and worries about compliance with regional payment systems. PAPSS has been successfully tested in six West African Monetary Zone nations.²⁴

Blockchain and cryptocurrencies²⁵



As the AfCFTA gears up for full implementation, blockchain could help unleash its potential economic gains. Blockchain platforms linking logistics service providers and customers could dramatically lower logistics costs and the cost of doing business. It improves the traceability of finances and enhances supply chain transparency.

Likewise, in the absence of a universally accepted continental currency, cryptocurrencies could serve as a viable means of exchange, provided that a robust regulatory framework is established. International transfers through banks can be expensive and time-consuming. Carrying cash on an airplane and delivering it to the receiver is often simpler than making a bank transfer. Cryptocurrencies offer another option for global currency transactions, enabling companies to benefit from the changing business environment.

Digital technologies are a catalyst to improve connectivity, data accessibility and innovation that can play a critical role in the growth of Africa's digital economy. They allow African firms to compete on a regional and global scale. Africa's rich potential will be harnessed when African governments, corporate partners and organizations participate more in digital transformation by fostering start-up innovation, supporting skills development and applying digital technologies to various other verticals.²⁶

The AfCFTA is expected to create the foundation for a robust digital economy across the continent. This will help African IT companies develop and offer more sophisticated ICT services to regional and global clients by virtue of factors such as higher availability of skilled labour and access to larger markets.

Potential impact of AfCFTA on tech services

By forming a single market for goods and services across all AfCFTA countries, the agreement lets tech companies access a broader customer base and expand their operations more quickly and efficiently. It reduces tariffs and non-tariff barriers, which increases flows of technology services and makes it easier for technology companies to trade more easily with other AfCFTA countries. The AfCFTA creates opportunities for tech businesses to partner with peers in other African countries to develop new products and services, which will enable them to tap into new markets, diversify and innovate their offerings.

The agreement will also give tech firms easier access to a larger pool of talent and resources, as they can operate in multiple countries, remotely and physically, navigating a reduced number of different regulatory frameworks.

Private-sector entities that develop market platforms can help boost the visibility of businesses and products across Africa. Platforms such as Kadodo Africa²⁷ enable firms to trade in different countries without physically setting up shops in these countries while e-commerce platforms including Hobei and Jumia will have the impetus to expand their reach in Africa.

AfCFTA's opportunity to offshore services

Removing trade barriers and creating a single market should boost demand for tech goods and services across Africa. This will create more opportunities for technology companies to expand their customer base and grow on the continent, making it easier for them to sell their services beyond Africa. This will be achieved by virtue of single, unified market for goods and services within the African continent, reduced trade barriers, enhanced cooperation among member nations and technology driven service delivery.

African IT and BPO companies offer services such as network application integration, management, payroll, accounting, call centres, document management, supply chain management, logistics and human resource management. Several African nations have already acquired activities that are a part of IT/BPO offshore services value chains – for instance, Ghana, Kenya, Senegal and South Africa, where larger local companies now offer some of these services. These nations have similar characteristics: skilled workers, relatively high internet penetration and broadband, stable political systems and a business-friendly environment.²⁸

Youth drive the technology road ahead

Although 10 million to 12 million African youth enter the workforce each year, only 3.1 million jobs are created.²⁹ Inclusive digital technology and value chains will be vital to integrate African countries into one major market and scale up the movement of goods and people, and an opportunity to mobilize African youth into self-employment. While most countries have ageing populations, Africa has the youngest population in the world, with 70% of sub-Saharan Africa under the age of 30.³⁰ Africa's youth bulge is predicted to grow exponentially in the coming years.

African youth maintain a consistent presence in digital innovation. Their ability to support digital migration and adoption was recently illustrated in the development of the Stop Corona contact tracing app, developed by four young Mauritians, and other homegrown African innovations to tackle COVID-19.

Youth participation can be improved by formulating policies based on a youth-centred approach, including measures on implementing digital entrepreneurship programming, engaging youth in decision-making and assessing and adapting youth-focused digital policies. Digital skills and entrepreneurship training programmes, access to public and private financial tools, and education on emerging technological solutions will facilitate the growth of youth-led small businesses.

Africa's Digital Transformation Strategy

The African Union adopted the Digital Transformation Strategy for Africa (2020–2030) in February 2020. The strategy seeks to create an 'integrated and inclusive' digital society by 2030 by advancing the advantages of digitalization to promote economic growth, end poverty and see progress.³¹ The strategy builds on initiatives and frameworks from the AfCFTA, along with other initiatives such as the Programme for Infrastructure Development in Africa and the Policy and Regulatory Initiative for Digital Africa to support the development of a digital single market for Africa (detailed below).³²

*Regulations for technology services trade*³³

The AfCFTA's objectives, provisions and protocols contain technology and innovation policy statements recognizing the technology–trade nexus. Several protocols and regulations govern the AfCFTA initiatives. It is essential to recognize the relevance and applicability of these regulations to optimize the benefits of free trade.

The regulations enable African countries to collectively establish common positions on e-commerce, harmonize digital economy regulations and leverage the benefits of e-commerce and digital trade. Understanding the practical policy implications behind existing and upcoming trade-related provisions will support inclusive development.

- **Protocol on digital trade:** Digital trade is an essential component of free trade. The African Union Assembly opted to incorporate digital trade in the AfCFTA in February 2020. The AfCFTA agreement includes a protocol that addresses digital trade issues. This protocol seeks to encourage the creation of African-owned e-commerce platforms at the national, regional and continental levels.
- **Protocol on services:** This protocol, which aims to promote technology and innovation, says countries will cooperate to promote technological advancement in services to accelerate social and economic development. Modernizing services such as financing, business registration and health in this digital age rely on new technologies. Countries investing in emerging technologies can boost their service trade while generating new services and activities.
- **Protocol on intellectual property rights:** IPRs are not explicitly framed in the AfCFTA agreement as technology and innovation policy, but have crucial implications for technological development and research to reach the objectives of the agreement. IPRs affect technology transfer in complex ways. While IPRs can provide incentives for technological innovation, this may constrain countries' exchange of scientific and technical knowledge, depending on the state of their technological development.
- **Protocol on trade in goods, investment and competition policy:** This protocol is a key part of the AfCFTA agreement and covers three main areas:
 - **Trade in goods:**³⁴ The protocol aims to eliminate taxes on goods traded between African countries. It sets guidelines to ensure non-tariff barriers on trade – such as import quotas and technical trade barriers – do not hamper business among African nations. The protocol also includes provisions on rules of origin, which specify the criteria that must be met for a product to be considered as originating from an AfCFTA member state.
 - **Investment protocol:**³⁵ This protocol lays out standards to safeguard investments made by AfCFTA member states. The guidelines include detailed dispute resolution procedures and investor protection against expropriation and unfair treatment.
 - **Competition policy protocol:**³⁶ This protocol seeks to promote fair competition and prevent anti-competitive practices. It provides a framework structure for collaboration and consultation on competition policy among AfCFTA member states and includes provisions for information exchange and technical assistance.
- **Annex on trade facilitation in the AfCFTA agreement.**³⁷ The annex aims to:
 - Simplify and streamline international trade procedures and logistics to accelerate import, export and transit processes.
 - Accelerate movement, clearance and release of goods, including goods in transit across borders within member states.

Policy dynamics: Regional digital policies

Besides the AfCFTA, several strategies touching on the digital sector have been implemented on the African subcontinent. Some have been outlined below:

- **Digital Transformation Strategy for Africa (2020–2030)**³⁸ – The primary goal of this programme is to use digital innovations and technologies to enhance African integration, foster inclusive economic growth, encourage job creation and close the digital gap. Key specific objectives include:
 - Build a secured digital single market in Africa by 2030 in line with the AfCFTA.
 - Create an enabling environment to guarantee investment and financing by setting up a digital sovereignty fund to close the digital infrastructure gap in the African subcontinent.
 - Implement the laws, rules and regulations necessary to promote and expedite digital transformation for national, regional and continental growth.
 - Encourage open standards and drive interoperability to preserve privacy and a cross-border trust framework.
 - By 2025, equip 300 million people with fundamental knowledge and skills in security and privacy in the digital world through a massive online e-skills development initiative.
 - Support the flagship Pan-African ‘E’ programme of Agenda 2063 by implementing policies and strategies that culminate in e-applications and services.

The construction of a safe digital single market in Africa by 2030 is one of the specific goals of the Digital Transformation Strategy. It is anticipated that people and firms will be able to access and participate in online activities without issues per the AfCFTA agreement.³⁹

- **Policy and Regulatory Initiative for Digital Africa**⁴⁰ – This is a joint initiative of the African Union, the European Union and the International Telecommunication Union (ITU). By addressing different aspects of broadband demand and supply in Africa and improving the capacities of African Union member states in internet governance, this joint initiative aims to enable digital-driven development in Africa.

- **Programme for Infrastructure Development in Africa**⁴¹ – This programme replaces the NEPAD Medium to Long Term Strategic Framework and aims to create a strategic framework for the development of continental and regional infrastructure in the areas of energy, transportation, ICT and transboundary water resources. The African Union Commission, the NEPAD Secretariat and the African Development Bank are in charge of the initiative.
- **Initiatives by Digital Africa**⁴² – Launched in 2018, this initiative targets inclusive growth in Africa. Digital Africa is now a \$131 million initiative.
 - Digital Africa established 12 projects with precise key performance metrics and organized them into each focus area.
 - On the European level, Digital Africa has been collaborating with GIZ⁴³ through its Make-IT programme to introduce Talent 4. This start-up supports training in the tech and digital professions on the continent to address the skill needs of African start-ups, improving the employability of young people and meeting the skills needed by the local ecosystems.
 - A group of 14 partners, including Digital Africa, make up the African European Digital Innovation Hubs Bridge. Beyond Europe, Digital Africa has started a programme called Africa Next that brings together a network of investors from across the globe. Digital Africa is launching diverse projects with African, European and American partners through this programme and others.

Intending to attract investment, enhance trade, provide better jobs, reduce poverty and increase shared prosperity in Africa, the AfCFTA aims at the integration of financial, labour, and digital markets. AfCFTA priorities to facilitate a competitive business environment include critical elements of a single digital market for Africa, such as sound digital infrastructure, easy availability of digital skills, accessible financial services and an ecosystem of supportive businesses.

How nations embrace and invest in technologies such as broadband connectivity, e-commerce, integrated payment systems and integrated digital identity systems, with big data and artificial intelligence as enablers, will be key to the success of the AfCFTA.

Phase 1: Salient features

- Phase 1 primarily includes trade in goods and services, dispute settlement and customs and trade facilitation among member states.
- It aims to promote innovation and efficiency while lowering costs in the AfCFTA market and lays out the guidelines to liberalize goods and service trade in Africa to increase services' competitiveness.
- The trade in goods protocol also intends to promote domestic and foreign investment while driving initiatives for industrial growth.
- The dispute settlement mechanism was established to focus on amicable, transparent and swift resolution of disputes between state parties.
- Phase 1 has a pivotal role in developing and promoting intra-Africa trade through the effective implementation of the agreed tariff offers, rules of origin and proper management of the borders.

Source: [World Bank](#)

Phase 2: Salient features

- Phase 2 encompasses IPRs, investment, competition policy, digital trade and women and youth in trade.
- Promoting and protecting IPRs is crucial to achieve the AfCFTA objectives. The Council of Ministers of Trade and State Parties set up a committee in May 2021 to facilitate talks on the protocol on IPRs.
- The State Parties and the Council of Ministers also set up a committee on investment to establish a transparent and sound continental legal framework on investment, considering the interests of state parties and investors.
- The AfCFTA Competition Protocol negotiations are in progress. Competition policy encourages companies to offer consumers goods and services on the most favourable terms while promoting efficiency and innovation. It also reduces prices within the AfCFTA market.
- With digital trade becoming a vital component of free trade, the growth of intra-African commerce depends on it to a great extent. In May 2021, the Council of Ministers set up the Committee on Digital Trade to coordinate and facilitate negotiations of the Protocol on Digital Trade under the AfCFTA.
- To address the specific constraints and barriers women face when trading on the continent, in line with the directives of African leaders, the AfCFTA Secretariat is undertaking preparatory work towards the negotiations and development of the AfCFTA Protocol on Women and Youth in Trade.

Source: [World Bank](#)

CHAPTER 3

Comprehensive country analyses

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COMPREHENSIVE COUNTRY ANALYSES

This second edition of the report examines IT/BPM sectors in Côte d'Ivoire, Democratic Republic of Congo, Ethiopia, Ghana, Kenya, Nigeria, Senegal, South Africa, Uganda, United Republic of Tanzania and Zambia. It considers enabling factors such as ICT infrastructure, government incentives and policies, as well as regulatory and compliance-related information.

The country analyses in this chapter aim to provide market information that IT and BPM exporters need. They are designed to broaden our understanding of the relevant conditions in the selected countries so providers keen to expand can make better-informed decisions.

Table 3 Country analysis in 12 areas

Subsection	Description
Macroeconomic and country data	Details and statistics on a country's economy, key sectors, demographics and significant socioeconomic highlights
ICT landscape	Growth trends and other highlights on the sector
IT/BPM sector overview	Snapshot of the sector with details on parameters such as market size, service offerings, important IT and BPM associations and agencies, and location attractiveness factors
Key cities and IT/BPM centres	Key IT/BPM centres and ICT hubs/tech parks/start-up hubs
The state of competition – understanding the IT/BPM service provider landscape	Major players and their service offerings
Service capacity and capability	Details on talent and skill availability, quality and employability of talent, scalability and training of talent
ICT infrastructure	Details on enabling ICT infrastructure – telecoms, broadband and power
Government incentives and policies	Investment incentives and business registration procedures
Regulatory and compliance	Details on labour laws, visa and immigration policies, current cybersecurity and data privacy-related regulations
Key IT and BPM associations/agencies	Contact information of important agencies and associations
Growing market segments	Demand trends and details about growing market segments
Market access opportunities	Potential opportunities in the growing market segments

Source: Avasant

Below are indicators used in the country profiles.

Table 4 Definition of terms

Indicator	Source	Definition
Economy		
Gross domestic product	World Bank	The aggregate gross value contributed by all local producers, plus any applicable product taxes, less unforeseen subsidies.
Real GDP growth rate	World Bank	GDP annual percentage growth rate based on constant local currency pricing.
IT/BPM sector competitiveness		
ICT service exports	World Bank	These include computer and communication services (telecommunications and postal and courier services) and information services (computer data and news-related service transactions).
ICT infrastructure		
<i>ICT infrastructure – telecom</i>		
Fixed telephone subscriptions (per 100 people)	World Bank	These are the sum of active numbers of analogue fixed telephone lines, voice-over-internet-protocol subscriptions, fixed wireless local loop subscriptions, ISDN voice-channel equivalents and fixed public payphones.
Mobile cellular subscriptions (per 100 people)	World Bank	These are subscriptions to a public mobile telephone service that provides access to the public switched telephone network using cellular technology. The indicator includes (and is split into) the number of post-paid subscriptions and the number of active prepaid accounts (those that were used during the last three months). The indicator applies to all mobile cellular subscriptions that offer voice communications.
<i>ICT infrastructure – broadband</i>		
Fixed broadband subscriptions (per 100 people)	World Bank	These are fixed subscriptions to high-speed access to the public internet (a transmission control protocol/internet protocol connection), at downstream speeds of 256 kilobits per second or more. This includes cable modem, DSL, fibre-to-the-home/building, other fixed (wired) broadband subscriptions, satellite broadband and terrestrial fixed wireless broadband.
Active mobile broadband subscriptions (per 100 people)	ITU database	These are the sum of standard mobile broadband and dedicated mobile broadband subscriptions to the internet. They cover actual subscribers, not potential subscribers, even though the latter may have broadband-enabled handsets.
People using the internet (% of population)	World Bank	Anyone who has used the internet (from any location) in the last three months. The internet can be accessed by computer, mobile phone, personal digital assistant, games machine, digital TV, etc.

International internet bandwidth per user (kilobits per second)	ITU database	This is the total used capacity of international internet bandwidth. It is measured as the sum of used capacity of all internet exchanges (locations where internet traffic is exchanged) offering international bandwidth.
Broadband Commission for Sustainable Development's definition of affordable internet	Broadband Commission for Sustainable Development	Entry-level broadband services should be affordable in low- and middle-income countries at less than 2% of monthly gross national income (GNI) per capita.
<i>ICT infrastructure – energy and power</i>		
Electric power consumption (kilowatt hour [kWh] per capita)	World Bank	Measures the production of power plants and combined heat and power plants minus transmission, distribution and transformation losses and own use by heat and power plants.
Quality of electricity supply	World Economic Forum (WEF), International Energy Agency, Energy Data Centre	Electric power transmission and distribution losses as a percentage of domestic supply (2016 estimate). These are losses in transmission between supply sources and points of distribution and in the distribution to consumers, including pilferage.
Service capacity and capability		
<i>Talent and skill availability</i>		
Youth unemployment	World Bank	This is the share of the labour force aged 15–24 without work, but available for and seeking employment.
Tertiary gross enrolment ratio	World Bank	The gross enrolment ratio is the ratio of total enrolment, regardless of age, to the population of the age group that officially corresponds to the level of education shown. Tertiary education, whether or not for an advanced research qualification, normally requires the successful completion of education at the secondary level.
Secondary gross enrolment ratio	World Bank	Secondary education completes the provision of basic education that began at the primary level and aims to lay the foundations for lifelong learning and human development, by offering more subject- or skill-oriented instruction using more specialized teachers.
<i>Quality and employability of talent</i>		
Quality of vocational training	WEF	Response to the survey question 'In your country, how do you assess the quality of vocational training?' (1 = extremely poor/among the worst in the world; 7 = excellent/among the best in the world). Based on 2020–2021 weighted average or most recent period available.
Skill set of graduates	WEF	Average score of two Executive Opinion Survey questions: 'In your country, to what extent do graduating students from secondary education possess the skills needed by businesses?' and 'In your country, to what extent do graduating students from university possess the skills needed by businesses?' In each case, the answer ranges from 1 (not at all) to 7 (to a great extent). Based on 2020–2021 weighted average or most recent period available.

Ease of finding skilled employees	WEF	Response to the survey question 'In your country, to what extent can companies find people with the skills required to fill their vacancies?' (1 = not at all; 7 = to a great extent). Based on 2020–2021 weighted average or most recent period available.
Digital skills in active population	WEF	Response to the survey question 'In your country, to what extent does the active population possess sufficient digital skills (e.g., computer skills, basic coding, digital reading)?' (1 = not at all; 7 = to a great extent). Based on 2020–2021 weighted average or most recent period available.
Youth literacy	World Bank	The percentage of people aged 15–24 who can both read and write with understanding a short, simple statement about their everyday life.
Adult literacy	World Bank	The percentage of people aged 15 and above who can both read and write with understanding a short, simple statement about their everyday life.

Source: Avasant Research

Côte d'Ivoire

Nascent technology sector, but can serve as a gateway to francophone West Africa and sub-Saharan Africa



CÔTE D'IVOIRE

Macroeconomic and country data



Capitals: **Yamoussoukro** (political) and **Abidjan** (economic)

GDP 2021 (constant 2015 \$): \$65.34 billion

GDP per capita 2021 (constant 2015 \$): \$2,414

Real GDP growth rate: 6% (2021)

Inflation rate: 4.2%

Population: 27 million

- 0–12 years: 37%
- 13–24 years: 25%
- 25–54 years: 31%
- 55+ years: 7%
- Population growth rate: 2.6%

Unemployment rate: 3.5%

Adult literacy rate (15 years and above): 90%

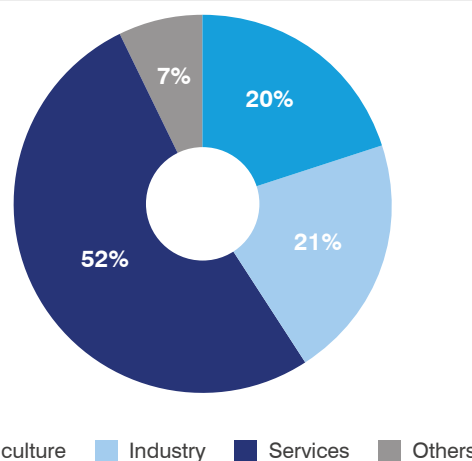
Urbanization: 52.18%

Major trade association:

- *Centre de Promotion des Investissements en Côte d'Ivoire*

Sources: World Bank (GDP, GDP composition, population, urbanization, literacy, unemployment, inflation), African Development Bank, Avasant Research

GDP composition



Key facts

Currency : West African CFA (*Communauté Financière Africaine*) franc (XOF)

Exchange rate (per \$): XOF 592.50 (July 2023)

Foreign direct investment inflows: \$1.38 billion

Official language: French

Major religions: Islam, Christianity

Major exports: Cocoa, cashew nuts, palm oil, coffee, oil

Country highlights

Côte d'Ivoire is a lower-middle income economy on the West African coast. It is the world's top producer and exporter of cocoa beans and a significant producer and exporter of coffee, palm oil and cashew nuts.

The economy has grown steadily since a new political regime emerged in 2011. In 2021, GDP recovered by 6%, after a dip of 2% in 2020 due to COVID-19. The recovery is driven by extractive and manufacturing industries, agricultural exports, buildings and public works, transport and commerce. Inflation rose to 4.2% in 2021 from 2.4% in 2020, driven by growing food prices as a result of insufficient local production.

Fast-growing mobile phone service penetration and continual economic growth means that Côte d'Ivoire could be the key to unlocking the French-speaking sub-Saharan African market.

Government incentives and policies

Push to become top digital and technology hub in West Africa

Côte d'Ivoire is making progress to increase growth and attract investments. The Government, seeking to position the country as West Africa's preferred digital and technology hub, is improving the business environment with its Focus on Doing Business programme. This has increased digitization and simplified procedures.

The ICT enabling environment has improved considerably in the last five years. The World Economic Forum ranks the ICT sector in each country by measuring the Network Readiness Index. Côte d'Ivoire was ranked 108 out of 130 countries on Network Readiness Index 2021.⁴⁴ The country has performed very well on some of the subindexes and parameters:

Table 5 Moving up in the rankings⁴⁵

Subindex/parameter	2013 rank (out of 144 countries)	2021 rank (out of 143 countries)
Importance of ICT to government vision	94	76
Government success in ICT promotion	91	85

Source: World Economic Forum

Table 6 Business development incentives

Incentives to support business development
<ul style="list-style-type: none"> ■ Tax exemption in the first year for ICT companies. ■ Reduced the administrative burden related to the tax audit of SMEs. ■ Specific incentives in the form of a tax credit available to companies recruiting new employees. ■ Based on certain prerequisites around investment amount, implementation period and the nature of activities, there are additional incentives:⁴⁶ <ul style="list-style-type: none"> – 35% corporate income tax deduction on profit earned in the region of Abidjan. – 40% corporate income tax deduction on profit earned in all other regions.

Source: Deloitte

The Village of ICT & Biotechnology of Côte d'Ivoire, in the city of Grand-Bassam, is home to the Mahatma Gandhi IT and Biotechnology Park. The park established the regime of free zones for biotechnology and ICT that offer the following benefits:⁴⁷

Table 7 Economic zone

Free economic zone benefits
<ul style="list-style-type: none"> ■ 0% customs duty ■ 0% corporate tax for the first five years ■ 1% from the sixth year with possibility of tax rebate ■ 0% value-added tax (VAT) ■ Freedom to transfer funds from salaries and dividends distributed ■ Long-term visa and work permit for foreigners and their families ■ No limit on foreign and local investments

Source: Deloitte

Côte d'Ivoire has also signed tax treaties with Belgium, Canada, France, Germany, Italy, Morocco, Norway, Portugal, Switzerland, Tunisia and the United Kingdom to avoid double taxation.⁴⁸ Companies without the benefit of a special tax regime are subject to an ordinary one, which includes:

Table 8 Tax regime

Ordinary tax regime
<ul style="list-style-type: none"> ■ No tax credits are granted ■ Direct taxes (these include corporate income tax and are 20% for individual entrepreneurs and 25% for companies, payroll tax, business licence and real estate tax) ■ Indirect taxes (these include VAT with a tax rate of 18% and the special equipment tax of 0.1% over the turnover, subject to VAT) ■ Withholding taxes are levied on non-resident entities, subject to 20% on their Côte d'Ivoire source income when they don't have a permanent establishment ■ Minimum tax is a minimum of 0.5% on total turnover, with a minimum of XOF 3 million (\$5,064) to a maximum of XOF 35 million (\$59,072) ■ No local income tax.

Source: Deloitte

Investment code⁴⁹

Enforced in October 2018, the Investment code aims to drive investments in Côte D'Ivoire promoting sustainable development. The investment code regime involves the creation of three zones (A, B and C), defined by the government, and comprises of two specific tax incentives: Declaration Regime and Investment Approval Regime. The code also creates two priority economic sectors:

- Category 1 – Agriculture and agroprocessing activities, hotels, health and private investments in high and specialized education.
- Category 2 – All other economic sectors and hotel projects that fall short of threshold in category 1.

Minimum investments

- **Investment Declaration Regime** – Has no minimum investment threshold.
- **Investment Approval Regime** – Has a minimum investment threshold defined as below:

- XOF 200 million for large companies that have more than XOF 1 billion in turnover
- XOF 50 million for SMEs
- For shopping centre – XOF 10 billion in Zone A; XOF 5 billion in Zones B and C
- For category 1 hotels – XOF 5 billion in Zone A; XOF 2 billion in Zones B and C
- For category 2 hotels – XOF 5 billion in Zone A; less than XOF 2 billion in Zones B and C
- For major structuring investments – XOF 100 billion in Zone A; XOF 50 billion in Zone B and XOF 15 billion in Zone C

The Centre for the Promotion of Investments approves benefits under the investment code once an investor files an application. Investors are also eligible for following benefits:

- Custom duty exemptions (except community levies and statistics fee).
- VAT suspensions (temporary) on equipment, goods and service activities eligible for VAT.

Information and communications technology landscape

Economy depends heavily on ICT

The ICT sector represented about 10% of GDP in 2021.⁵⁰ The sector is a primary driver and enabler of economic growth in Côte d'Ivoire. The tech environment has improved markedly in the last few years, driven by structural and sectoral government reforms. New laws have been passed to address vital areas such as convergence, universal service, consumer protection and ICT licensing.

Infrastructure investments are also increasing. For example, the country is deploying a national 7,000-kilometre (km) fibre backbone to provide data and telephony services to rural areas. Investments have also been made to develop free trade zones and ICT parks such as the Village of ICT & Biotechnology of Côte d'Ivoire to boost investment and make the sector more attractive.

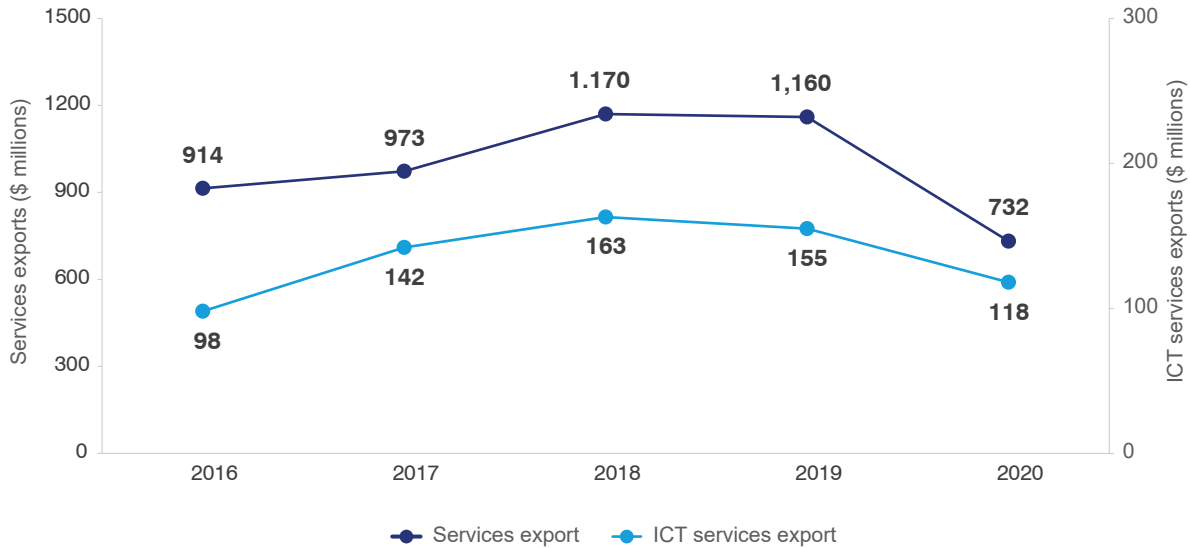
In December 2021, the country announced the initiation of a national digital development strategy under which the Government has established seven pillars to promote growth of ICT sector: digital financial services, digital infrastructure, digital services, digital skills, business environment in the digital economy sector, digital trust,

innovation and cybersecurity. As part of its objective, the Government is building a datacentre and a national fibre optic network that it aims to complete by 2025.⁵¹

This strategy is in line with Côte d'Ivoire's ambition to reach upper-middle income status by 2030. The country is the largest economy in the West African Economic and Monetary Union (also known by its French acronym UEMOA).⁵² The National Digital Development Strategy will accelerate the improvement of ICT infrastructure at a national level, creating several opportunities for ICT providers, including BPO, to expand in Côte d'Ivoire, by virtue of its high-speed internet, young and educated workforce and a robust ICT infrastructure.

According to the World Bank, Côte d'Ivoire exported \$118 million in ICT services (a key measure for IT/BPM services) in 2020, accounting for about 16% of service exports. Annual ICT service exports grew more than 21% in 2016–2021, indicating the increasing importance of these services to the economy.⁵³

Figure 5 Service exports have been rising since 2016



Source: World Bank (Services Exports; ICT Services Exports)

Why is the Ivorian technology sector appealing?

Attractiveness factors

Vibrant start-up ecosystem
Country’s start-up eco-system is ranked 5th regionally and 11th globally.⁵⁴ Abidjan is the epicentre of tech innovation in the country.

Favourable time zone
Local time identical to the United Kingdom / a 1–2-hour difference with most European countries

Among the fastest growing economies
in Africa

Well-developed infrastructure
for technology businesses

Strong government ICT focus
through policy promotion

Main highlights
Annual ICT revenue: ~ \$800 million ⁵⁵
ICT workforce: The entire sector employs an estimated 200,000 people both directly and indirectly ⁵⁶
Entry-level IT salary (monthly): ~ \$259–\$1,270 ⁵⁷
Main IT/BPM service offerings: Contact centre services, IT infrastructure hosting, IT hardware and software reselling, back-office operations
Major market served: European Union
Key IT/BPM associations and agencies: <ul style="list-style-type: none"> ▪ <i>Groupement des Opérateurs du Secteur des Technologies de l’Information et de la Communication de Côte d’Ivoire</i> ▪ <i>Société Nationale de Développement Informatique</i> ▪ <i>Agence Nationale du Service Universel des Télécommunications</i>



Key cities and technology centres

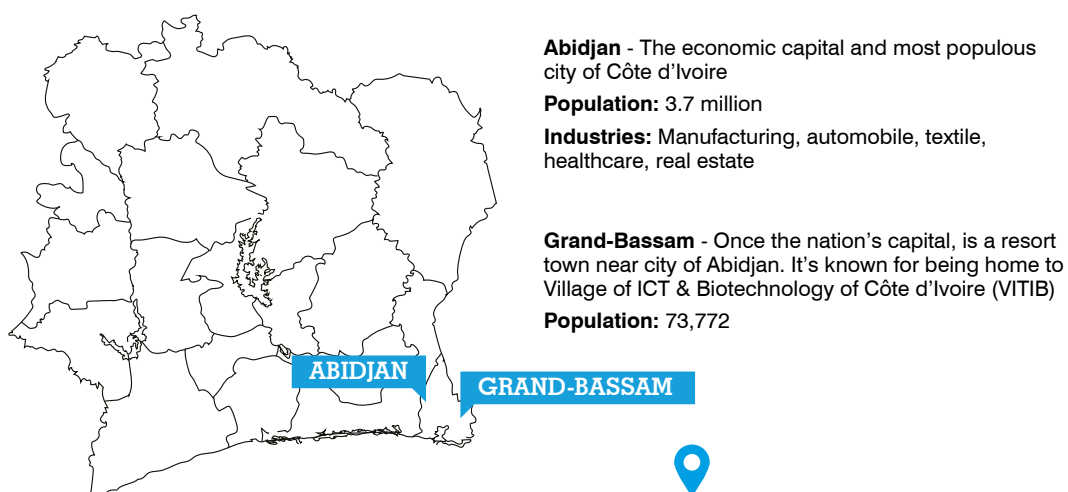
Most tech hubs are based in Abidjan and Grand-Bassam

Abidjan, the economic capital of Côte d'Ivoire, is the only city with a population of more than 1 million (3.7 million). Only two other cities, Abobo and Bouaké, have more than 500,000 people (900,000 and 567,481, respectively). The fifth-biggest city is San-Pedro, with a population of almost

196,000.⁵⁸ The country grows about 2.5% a year, according to World Bank.⁵⁹

The figure below shows the two cities in Côte d'Ivoire most suitable for IT/BPM companies.

Figure 6 Southeast was home to most tech companies in 2022



Around 30 technology hubs are based in Côte d'Ivoire.⁶⁰

Table 9 Seven hubs are in Abidjan

City	ICT hubs/tech parks/start-up hubs
Abidjan	<ul style="list-style-type: none"> ▪ Incub'Ivoir ▪ Orange Fab Côte d'Ivoire ▪ MTN Y'ello Start-up ▪ Seedspace Abidjan ▪ BabyLab ▪ CO.LAB Abidjan ▪ Jokkolabs ▪ Ovillage
Grand-Bassam	<ul style="list-style-type: none"> ▪ Village of ICT & Biotechnology of Côte d'Ivoire ▪ Mahatma Gandhi IT and Biotechnology Park: a dedicated free trade zone for IT and biotechnology.

Source: Avasant Research

The state of competition: Understanding the landscape

Service provider landscape is small and nascent

The telecom sector largely drives ICT in Côte d'Ivoire. The IT/BPM service provider landscape is nascent, with a handful of prominent players supported by numerous small and bespoke technology companies. Orange, MTN and MOOV are three major mobile phone operators managing a total of 39 million accounts in the country.⁶¹ In addition, Orange, MTN and VIPNET are fixed internet subscription service providers.

Some highlights of the service provider landscape are described below.

- **Key locations:** Most providers are based in Abidjan. With the opening of Village of ICT & Biotechnology of Côte d'Ivoire and its ICT park, Grand-Bassam is poised to become a favourable destination for service providers.

- **Providers have limited service capabilities.** Most providers resell IT hardware and software, though some offer IT security services. Providers are also delivering contact centre and customer experience-related services. Service providers tend to be small, with fewer than 100 employees.
- **Larger, international firms offer more complex services.** Only a few international firms deliver IT/BPM services from the country. They specialize in contact centre and back-office support services.

The following table describes the main services offered by some of the leading service providers in Côte d'Ivoire. International companies are highlighted in blue.

Table 10 Providers offer a range of services

Service provider	Headcount	Example of services offered
	Location	
Premier Centre de Contact International Côte d'Ivoire 	Abidjan Dubai (headquarters)	Contact centre and customer experience services, telemarketing, software and IT products, IT hardware reselling
Tops BPO 	Pasig, Philippines (headquarters)	Contact centre, back-office services, recruitment process outsourcing services
Afrisofts 	Abidjan	Web design and hosting, networking and IT security, staff management solutions
Ivoprest 	Abidjan	IT security, systems audit, IT training
Alink Telecom 	Abidjan	Network and telephony services, system integration
Pordes 	Abidjan	Solution and system integration, outsourcing, IT software and hardware reselling
Premium Technologie 	Abidjan	IT software and hardware reselling
Inter Continental Business Machines 	Abidjan	IT software and hardware reselling

Source: Avasant Research

Service capacity and capability

Government prioritizes development of local talent

Côte d'Ivoire scored 0.35 in the World Bank 2018 Human Capital Index (HCI). The World Bank and the Census and Economic Information Centre say Côte d'Ivoire has a high labour-force participation rate of 57%. In the 2020 update of the HCI, the country scored 0.38 on a scale of 0–1. This scoring is based on data collected up to March 2020 across three pillars: survival (survival rate of children over 5 years of age), school (quantity and quality of education) and health (adult survival rates and rate of healthy growth among children).⁶²

About 23% of the country’s population is economically inactive and almost half of these people are between ages 14 and 34. Much of the inactive population is youth transitioning from school to full-time employment.⁶³ The Government has introduced initiatives to address this gap:

- Companies paying remuneration to foreign employees working in the Côte d'Ivoire must contribute to the Fund for the Development of Vocational Training (*Fonds de Développement de la Formation professionnelle*) for apprenticeships and employee training.
- The Government has made school compulsory for children aged 6–16, without distinction of sex. This has greatly improved access to education, with an estimated primary school enrolment rate of 90%.⁶⁴

- The net enrolment in secondary vocational training courses in 2020 was 116,600.⁶⁵
- The government spent 15% of its total expenditure on education in 2021.⁶⁶
- The Government has incentivized and encouraged the private sector and international ICT players to invest and build capabilities in the country. In 2018, Chinese technology company Huawei inaugurated the Huawei ICT Academy, which aims to train, upskill and certify the potential ICT talent in Côte d'Ivoire in digital skills.

For any emerging economy, availability of human capital is the most critical prerequisite for the success of the IT/BPM sector. The Ivorian Government is increasingly focused on developing the local talent pool and has adopted measures to boost training that involve public and private participation. The history and growth of mature IT/BPM destinations such as India and the Philippines show that the sector can help tackle the challenges of youth unemployment and inactivity in Côte d'Ivoire and drive economic growth.

The next table looks at the availability and quality of talent in the Ivorian IT/BPM sector and outlines its scalability prospects and opportunities.

Table 11 Service capacity and capability in Côte d'Ivoire

Talent and skill availability	
No. of universities: 26 ⁶⁷ Youth unemployment: 4.1% ⁶⁸	<p>Although Côte d'Ivoire has 26 universities, higher education is not limited to the university system. Many Ivorian students enrol in private and public institutes of higher education. The country also has Grandes Écoles, which are prestigious, highly selective postgraduate schools (patterned after their French models in Paris) that train the best talent and produce the best engineers and civil servants in the country.</p> <p>The latest data from the United Nations Educational, Scientific and Cultural Organization (UNESCO) show that 74,984 students were enrolled at post-secondary diploma level in 2017. In 2018, 101,758 students were studying for a bachelor’s degree and 33,982 were studying for a master’s degree.⁶⁹</p> <p>The number of technical and vocational training programmes rose to 535 in 2019–2020 from 433 in 2011–2012. A total of 63,291 students were studying in these institutions as of 2019–2020. Most students (62%) in these programmes were being trained in tertiary services such as tourism, logistics and fashion, followed by 38% in secondary industries such as baking, plumbing and carpentry, and less than 1% in fishing and farming.⁷⁰</p>
Unemployment rate among vocational and technical training graduates: 23% ⁷¹	
Tertiary gross enrolment ratio (2020): 9.9% ⁷²	
Secondary gross enrolment ratio (2021): 60.62%	

Quality and employability of talent	
Quality of vocational training: Ranks 66th of 141 countries	The education system is expanding. However, Côte d'Ivoire lags behind other countries when it comes to adult and youth literacy. In 2019, youth literacy was 83.6% and adult literacy was 89.9%. This is a big improvement over 2012, when youth literacy was at 58% and adult literacy was at 52%. ⁷³
Skill set of graduates: Ranks 90th of 141 countries	The quality and availability of technical and vocational training, particularly in information technology, scored 4.2 on the WEF Global Competitiveness Index 2019. The scoring – on a scale of 1 to 7, with 1 representing not well at all, and 7, extremely well – assesses how well the education system meets the needs of a competitive economy. The growing number of vocational education and technical training enrolments corroborates the country's score. ⁷⁴ On the ease of finding skilled employees, Côte d'Ivoire performed reasonably well, scoring 4.6 (out of a possible 7). Among sub-Saharan Africa nations (34 in total), though, Côte d'Ivoire among the bottom three in this category, with a rank of 127, followed only by Mozambique (132) and Angola (141). ⁷⁵
Ease of finding skilled employees: Ranks 40th of 141 countries	
Digital skills in active population: Ranks 95th of 141 countries	
Literacy ⁷⁶ <ul style="list-style-type: none"> ■ Youth literacy: 83.6% ■ Adult literacy: 89.9% 	
Scalability	
<p>Côte d'Ivoire faces the paradox of large-scale graduate unemployment coupled with challenges for ICT businesses to fill open positions with the right talent. Two main reasons for this are:</p> <ul style="list-style-type: none"> ■ Lack of private-sector involvement in vocational and technical training programmes. ■ Absence of monitoring and evaluation mechanisms for training programmes. <p>Young people living in rural areas are poorly educated and face poor employment compared to urban youth. Challenges include inactivity, informality, underemployment and poor wages. However, urban youth go through longer school-to-work transitions than rural youth, as most jobs are in the agricultural sector. Further, the issue of skills mismatch demonstrates a gap in the education system, lagging behind in imparting skills needed in the labour market. The Government must tackle youth informal employment that stems mainly from a below-average education system.</p> <p>Efforts have been made to strengthen the local ICT talent pool. The Government is collaborating with the Global Partnership for Education – an international organization dedicated to giving children in developing countries access to quality education – on the Education Sector Plan 2016–25. The plan aims to address existing and future challenges faced by the technical and vocational training sector.</p> <p>The Government, in partnership with the African Development Bank, announced the creation of the Ivorian Innovation Fund in 2016. The \$262 million project focuses on infrastructure and financial support for start-ups in the technology sector. The fund leverages business partnerships and facilitates training opportunities among the member countries of the UEMOA.⁷⁷</p> <p>In April 2022, Côte d'Ivoire signed a memorandum of understanding with Switzerland, to strengthen their cooperation in science, technology and innovation space. The agreement facilitates the transfer of funds from Switzerland's Strategic Support Programme for Scientific Research to the new National Fund for Science, Technology, and Innovation of Côte d'Ivoire. The funds will be used to support research and development in the science and technology space. Switzerland has the most intensive scientific relations with Côte d'Ivoire among the West African countries.⁷⁸</p>	

Source: Avasant Research

ICT infrastructure

Government seeks to boost connectivity and access

Telecommunications dominates and drives the Ivorian ICT sector, resulting in increased mobile phone penetration and subscriptions. The Government of Côte d'Ivoire is aggressively pursuing initiatives designed to improve connectivity and access to tech services.

Along with building the fibre-optic cable network backbone, the Government is working on e-government initiatives to provide digitalized citizen services primarily related to healthcare and education. The aim is to include rural

areas, which have been unserved compared with urban settlements.

The Government hopes to attract private-sector investment in tandem with public investment under the 2021–2025 National Development Plan, prioritizing initiatives with the greatest social impact. This would enhance infrastructure to position the country as an attractive destination for ICT investment and digital activity.

Table 12 Greater phone penetration lifts financial inclusion

Telecom	
■ Fixed telephone subscriptions (per 100 people) ⁷⁹	– 1.1
■ Mobile cellular subscriptions (per 100 people) ⁸⁰	– 152
<p>The Ivorian telecommunications sector is well developed. With an average of two SIM cards per person, the country has one of the highest penetration rates in West Africa. Three main operators – Orange, MTN and MOOV (Etisalat Group) – dominate the mobile telecom market. More than 90% of the population is covered by 2G and 3G network, while 4G covers 60% of the population (mainly in Abidjan). Two operators, Côte d'Ivoire Telecom (bought by Orange) and Arobase Telecom (MTN Group), comprise the fixed telephony market.⁸¹</p> <p>Data from the World Bank's Global Financial Development Database show that growing mobile phone penetration in Côte d'Ivoire has boosted financial inclusion. Overall account ownership increased by 10% to 51% in 2021 from 41% in 2017.</p> <p>In the last few years, mobile phone usage trends suggest a shift from voice and text services to data-intensive mobile internet services such as messaging, payments and social media. The trends are depicted in the graphic below.</p>	
<p>Mobile service adoption trends in Côte d'Ivoire⁸²</p>	
2020	
2015	
2010	
<p>Mobile Service Adoption %</p> <p> ■ Voice and Text Only ■ Mobile Internet ■ Not Subscribed </p>	
<p>The healthcare and agriculture sectors will benefit the most from increased mobile phone adoption. Along with mobile payments, the Government is focusing on platforms that facilitate telemedicine and mobile health and provide easy access to information in the farming sector with the latest agritech solutions.</p>	

Broadband/bandwidth

- Fixed broadband subscriptions (per 100 people)⁸³ – **0.99**
- Active mobile broadband subscriptions (per 100 people)⁸⁴ – **66.19**
- Individuals using the internet (% of population)⁸⁵ – **36%**
- International internet bandwidth per internet user (kilobits per second) – **5.16**
- % of households with internet access⁸⁶ – **16.9%**

The country expanded and developed the national backbone network in 2017 by laying an additional 7,000 km of fibre-optic cables. West Africa cable owned by Maroc Telecom's, a Morocco-based telecom company, will link Côte d'Ivoire, Togo, Benin, Gabon and Mauritania from Casablanca.⁸⁷ This will reduce domestic data and internet prices.

Côte d'Ivoire ranked 173rd out of 233 countries on mobile data affordability in 2021 (based on the worldwide mobile data pricing by Cable.co.uk), with 1 gigabyte of data costing \$3.06 on average on a 30-day plan.⁸⁸

Power⁸⁹

- Electric power consumption (kWh per capita)⁹⁰ – **274.7**
- **Generation capacity**
 - Installed capacity – **2,105 megawatts (MW)**
- **Connections**
 - Current access rate – **63%**
- Quality of electricity supply – **Ranks 112th of 141 countries**

As part of National Development Plan, Côte d'Ivoire aims to become an energy hub in sub-Saharan Africa and to provide quality, cheap and abundant energy domestically and regionally.

The Government is focusing on the social programme it launched in early 2019 to accelerate National Development Plan projects with the strongest social impact. This plan has been extended into a second phase; The National Development Plan 2021–2025. These projects include rural electrification for poorer households.

Cost of electricity⁹¹

	Cost (\$) household, kWh	Cost (\$) business, kWh
Côte d'Ivoire	0.107	0.181
World average	0.15	0.13

Source: Avasant Research

Table 13 Setting up a business in Côte d'Ivoire

Business registration procedure		
<p>The investment promotion centre, <i>Centre de Promotion des Investissements en Côte d'Ivoire</i>, is a one-stop shop for business registration. The centre provides investment information and assistance for starting a business in Côte d'Ivoire.</p> <p>This 'single window' business registration centre has all regulatory agencies under one roof, facilitating business registration. Entrepreneurs can also register with the commercial registrar (<i>Registre du Commerce et du Crédit Immobilier</i>), the tax authority (<i>Direction Générale d'Impôts</i>) and social security institute (<i>Caisse Nationale de Prévoyance Sociale</i>).</p> <p>Côte d'Ivoire performs significantly better than the sub-Saharan Africa average in terms of business setup procedures and time.</p>		
Setting up a company	Côte d'Ivoire	Sub-Saharan Africa
Procedures (number)	4	7.5
Time (days)	6	21.3
<p>Source: Lloyd Banks Trade</p> <p>In certain cases, a business can be registered in as little as 24 hours. The general procedure for setting up a limited liability company is:</p> <ul style="list-style-type: none"> ▪ Initial notary draft of the company statutes together with a proof of financial availability (paid-in capital). ▪ Bank account and deposit of the paid-in capital – the founders choose a bank that will receive the full paid-in capital. ▪ Registration (one-stop shop) and the legal notice publication facilitate the process related to: <ul style="list-style-type: none"> – commercial registrar – registration to the tax authority – registration to the social security institute ▪ After registering on the investment promotion centre website, founders can create their company seal. <p>According to the 2020 Doing Business report, Côte d'Ivoire made starting a business easier by creating a one-stop shop. It reduced notary fees and replaced the requirement for a copy of founders' criminal records with a sworn declaration at the time of company registration.</p> <p>Improvements noted by the 2020 Doing Business report:</p> <ul style="list-style-type: none"> ▪ Paying taxes: Côte d'Ivoire implemented an electronic filing and payment system and made paying taxes easier. An online case management system was created to process VAT cash refunds. 		

Source: Avasant Research

What is the focus of tech policy in Côte d'Ivoire?

The Network Readiness Index includes an ICT environment subindex, which reflects both the political and regulatory environment and the business and innovation environment.

Higher rankings in this subindex show that Côte d'Ivoire has made substantial progress in improving its regulatory and business environment.

Table 14 Marked improvement in the regulatory environment⁹²

Subindex/parameter	2013 rank (out of 144 countries)	2021 rank (out of 143 countries)
Political and regulatory environment	128	84
Business and innovation environment	127	99

Source: Avasant Research

Five public institutions and agencies oversee the ICT sector in Côte d'Ivoire:

- **Autorité de Régulation des Télécommunications de Côte d'Ivoire**, created from the merger of the Telecommunications Council of Côte d'Ivoire and the Telecommunications Agency of Côte d'Ivoire. It is the national regulatory authority and its core objective is to develop the digital economy and expand the reach of ICT in the country. The authority established the Computer Emergency Response Team of Côte d'Ivoire in 2009.
 - **Société Nationale de Développement Informatique**, a government entity providing support and assistance to organizations, communities and private companies on all ICT-related matters. The society oversees IT and related projects for the Government.
 - **Ministère de l'Economie Numérique et de la Poste**, the ministry in charge of the ICT and digital economy.
 - **Agence Ivoirienne de Gestion des Fréquences radioélectriques**, the agency in charge of ICT radio frequency management.
 - **Agence Nationale du Service Universel des Télécommunications**, created to ensure that telecommunication services are available to all individuals and businesses. Its establishment spearheaded government efforts to strengthen the ICT sector, including through various legal measures to accelerate digitalization in the private and public sectors.
- The agency seeks to catalyse public digitalization efforts and regulate the sector. It was instrumental in the expansion of the fibre-optic network, which has opened the market for e-solutions in different sectors including banking, health and educational services.
- **Centre for the Promotion of Investments in Côte d'Ivoire** – This is the Ivoirian Government's premier investment promotion agency. In 2019, the government added a Ministry of Investment Promotion and Private Sector Development. It has been charged with developing industrial zones, including economic and free zones, as well as investment promotion activities.
 - **Chambre de Commerce et d'Industrie de Côte d'Ivoire** – A business support institution, the chamber is an interface between government authorities and the private sector.
 - **Groupe des Entrepreneurs de Côte d'Ivoire** – This association of large enterprises has a staff of 40 employees who offer legal and fiscal services, international cooperation, export promotion, collective bargaining agreements and human resource management.

Table 15 Regulatory and compliance policies for IT/BPM⁹³

Labour laws⁹⁴	<ul style="list-style-type: none"> ■ 2015 labour code ■ Decrees implementing the labour code⁹⁵ ■ All prerequisite decrees that are consistent with the 2015 labour code ■ The inter-professional collective bargaining agreement of 19 July 1977 ■ Any subsequent sectoral collective bargaining agreement ■ Internal company rules ■ Employment contract
Visa and immigration policies	<ul style="list-style-type: none"> ■ Expatriates working in Côte d'Ivoire must hold a residence permit ■ Residence permits are valid for one year and renewable for additional one-year periods ■ An employee may be seconded to Côte d'Ivoire, provided he/she complies with immigration laws and the formalities required in terms of <i>l'Agence d'Etudes et de Promotion de l'Emploi de Côte d'Ivoire</i> ■ A seconded employee must be employed by a local entity to work in Côte d'Ivoire. <p>Type of visa:</p> <ul style="list-style-type: none"> ■ Short-term visa – One to three months ■ Long-stay visa – Up to 6 months and 1 year ■ Work contract visa – For a work contract with limited duration, this visa is issued for maximum period of 24 months, while long-term visas are issued for open-ended contracts.
Cybersecurity and data privacy regulations⁹⁶	<p>In 2013, the National Assembly adopted new laws to govern electronic transactions and e-commerce activities. These laws:</p> <ul style="list-style-type: none"> ■ validated the use of digital signatures, a necessary step to establish a digitalized public administration; ■ strengthened the protection of personal data, setting out the legal privacy guidelines for online users in the country. <p>The Department of Computer and Technologic artefacts (<i>Direction de l'Informatique et des Traces technologiques</i>, a special unit for computer-related evidence, was created in 2009 in the Forensics Division of the Ministry of Interior. It investigates cybercrime, provides technical support to all investigations and carries out IT security projects.</p> <p>The country also has cybercrime laws that contain provisions on:</p> <ul style="list-style-type: none"> ■ substantive criminal law (including those related to illegal access, illegal interception, data and system interference, computer-related fraud and forgery, and child online protection). ■ collection of electronic evidence. <p>Côte d'Ivoire has adopted Law 2013-450 on the Protection of Personal Data. The Telecommunication Regulatory Authority of Côte d'Ivoire is the primary ICT regulator in the country.</p>

Source: Avasant Research

Trade associations offer a helping hand to tech firms

Table 16 Four key associations and agencies work in the sector

Agency	Contact
<i>Centre de Promotion des Investissements en Côte d'Ivoire</i>	E-mail: infos.cepici@cepici.ci Website: www.cepici.gouv.ci/en/
<i>Groupement des Opérateurs du Secteur des Technologies de l'Information et de la Communication de Côte d'Ivoire</i>	E-mail: secretariat@gotic.ci Website: https://gotic.ci/
<i>Fondation Jeunesse Numérique</i>	E-mail: infos@fjn.ci Website: https://fjn.ci/
<i>Société Nationale de Développement Informatique</i>	E-mail: infos@sndi.ci Website: www.sndi.ci/

Source: Avasant Research

Growing market segments

Healthcare, agriculture and financial services are fast-growth areas

After examining the size of Ivorian economic sectors, as well as growth trends, three important market segments were identified.

Table 17 Three fast-growing sectors show outsourcing potential

Healthcare	
Size of industry: ~ \$2.3 billion	<ul style="list-style-type: none"> Annual spending on healthcare exceeded \$2.3 billion in 2021. Steady economic growth and universal healthcare would sustain demand.⁹⁷
Contribution to GDP: 5%	<ul style="list-style-type: none"> Côte d'Ivoire is the leading market for the private pharmaceutical sector in sub-Saharan Africa, importing more than 90% of pharma requirements from the United States, Germany, Switzerland and China.⁹⁸ The African population is growing 2.5% a year and is expected reach 2.5 billion by 2050. Demand for medical equipment and pharmaceuticals will increase greatly.⁹⁹ There is an influx of investment from both local and foreign players. The 2016–2020 National Health Development Plan envisions developing an efficient and accessible health system. This is catalysing growth in the sector.
Agriculture	
<ul style="list-style-type: none"> The national e-agriculture strategy, validated in 2012, aims to develop information services that provide access to market information for businesses and individuals.¹⁰⁰ The Government outlined its strategy to diversify and make the agricultural sector more productive in its National Development Plan for 2021–2025.¹⁰¹ The agricultural labour force is shrinking as workers move towards the cities and farmer's age. These are favourable factors for adopting technology in agriculture. 	

Financial services

- Côte d'Ivoire has a fast-growing middle class and increasing spending power.
- It is a gateway to West Africa and sub-Saharan Africa and preferred destination for banks and financial institutions trying to expand their West African operations.
- Banking inclusion and penetration is only around 20%, which means there is a huge potential for more people to use banking services. Mobile money drives most of this growth.¹⁰²
- Principal growth drivers:
 - Growing mobile subscriptions with 152 mobile subscriptions registered for every 100 people;¹⁰³
 - Surge in e-commerce activity.

Source: Avasant Research

Market access opportunities

Growing mobile phone and internet penetration underpins demand

Businesses in a range of sectors are turning to IT and software systems to boost accessibility and enhance customer experiences. The trends seen in the growing market segments showcase the sectors that are likely

to drive demand for IT/BPM services in Côte d'Ivoire: healthcare, agriculture and financial services.

The following table identifies market access opportunities and potential service areas in these three sectors.

Table 18 Three sectors offer different opportunities

Industry	Service area	Description
Healthcare	<ul style="list-style-type: none"> ■ Digital health solutions ■ Healthcare application services ■ Customer and data management 	<p>Many Ivorians have insufficient access to healthcare. However, penetration of mobile phones is fuelling the growth of health services. The Government is promoting public-private partnerships and private-sector investment in healthcare.</p> <p>The country invested in renovating and building medical facilities to bring access to services and development of technical platforms in line with international health standards. However, the COVID-19 pandemic created challenges for Ivorian healthcare. In 2020, the Government, along with non-governmental organizations (NGOs) and local organizations, launched a healthcare initiative called Harness the Power of Partnerships. Through this initiative, Cote d'Ivoire works on spreading awareness on HIV, reducing stigma and improving healthcare services.</p> <p>The Government is opening more hospitals and clinics, as not all districts have adequate health structures. This creates opportunities in the IT/BPM space. Many private players are expanding and have been securing foreign funding to develop their operations and capabilities.</p> <p>All of this would require IT/BPM services. The main opportunities include:</p> <ul style="list-style-type: none"> ■ Enterprise resource planning and customer relationship management systems – development and maintenance ■ Customer records management ■ Customer support ■ Healthcare application maintenance ■ Telemedicine ■ Electronic medical records system solutions ■ Insurance registration and claims systems ■ Mobile health solutions ■ Hospital management information system solutions ■ Health information system solutions ■ Insurance registration and claims systems

Industry	Service area	Description
Agriculture	<ul style="list-style-type: none"> ■ Agriculture marketplace solutions ■ Information systems and solutions ■ Supply chain solutions 	<p>The national e-agriculture strategy requires suitable access to information services and data centres as part of an ICT package aiming to make real-time market information systems available via mobile phones and tablets. Some of the key opportunities include:</p> <ul style="list-style-type: none"> ■ Supply chain management applications and support ■ Market information system development and maintenance ■ Contact centre and helpline offerings for government agriculture departments <p>Côte d'Ivoire is a pioneer in adopting technology in agriculture. Ecole Supérieure d'Agronomie, an agricultural school in Yamoussoukro, developed an application-based service that gives farmers information about the optimum time to water or harvest. The service is based on real-time meteorological data sourced from NASA satellites.</p> <p>Other apps are being developed, including a virtual marketplace for agricultural produce. In addition, tech innovators in agriculture, known as agripreneurs, are developing applications that spreading awareness on precision agriculture methods and optimal farming practices via smartphone.¹⁰⁴</p>
Financial services	<ul style="list-style-type: none"> Mobile remittances Finance and accounting outsourcing; finance accounting shared service centres Insurance Banking solutions Digital payments Peer-to-peer lending Personal finance 	<ul style="list-style-type: none"> ■ Most Ivorians who access formal financial services today use mobile money to do. Fintech presents new opportunities for telecom providers that offer higher-value digital services. ■ Retail banking is also growing. Subsidiaries of foreign lenders largely dominate the market, with French and Moroccan banks accounting for half of the 10 largest players. This provides opportunities for IT/BPM service providers as banks require services around: <ul style="list-style-type: none"> – Customer data collection and processing – Customer relationship management systems and enterprise resource planning systems for bank branches – IT security – Back-office operations ■ The presence of major international financial institutions such as Société Générale, BNP Paribas and Standard Chartered is ideal for finance and accounting outsourcing and finance and accounting shared service centres. This will also enable providers that lack highly technological service capabilities to tap into the sector for services including: <ul style="list-style-type: none"> – Contact centre services – General accounting – Accounts receivable/accounts payable – Invoice processing and help desk – Procurement
General	Contact centre services	<ul style="list-style-type: none"> ■ Omnichannel contact centre services ■ Traditional customer interaction services offerings across: <ul style="list-style-type: none"> – Relationship management – Customer retention – Customer acquisition

Source: Avasant Research

Democratic Republic of the Congo

The Democratic Republic of the Congo's ICT services sector is nascent. Its large market and location make the country very attractive for IT/BPM providers



DEMOCRATIC REPUBLIC OF THE CONGO

Macroeconomic and country data



Capital: **Kinshasa**

GDP 2021 (Constant 2015 prices): \$48.07 billion

GDP per capita 2021 (Constant 2015 prices): \$501

Real GDP growth rate (2020 vs 2021): 5.7%

Inflation rate (2021): 9.3%

Population (2021): 92.38 million

- 0–14 years: 46.38%
- 15–24 years: 19.42%

Population growth rate (2021): 3.1%

Major business sectors: Mining, agriculture, telecoms, government, infrastructure

Unemployment rate (2021): 23%

Literacy rate (2021): 80%

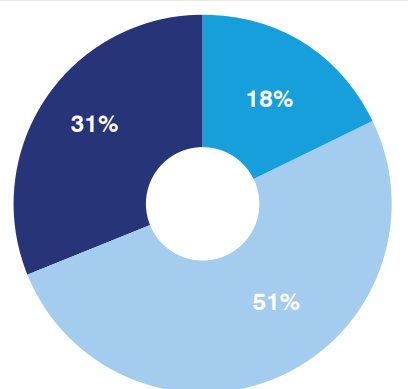
Urbanization (2021): 46%

Major trade and industry associations:

- *Autorité de Régulation de la Poste et des Télécommunications du Congo*
- *Société Congolaise des Postes et Télécommunications*

Sources: World Bank (GDP, GDP composition, population, urbanization, literacy, unemployment, inflation), African Development Bank, Avasant Research

GDP composition



■ Agriculture ■ Industry ■ Services

Key facts

Currency: Congolese franc (CDF)

Exchange rate (per \$): 2,550 (July 2023)

Foreign direct investment inflow: \$1.87 billion

Major languages: French (official), Lingala, Kingwana, Kikongo, Tshiluba

Major religions: Christianity (80%+), Islam (3%)

Major exports: Cobalt, refined copper, copper ore, cobalt oxides and hydroxides, cobalt ore

Country highlights

The Democratic Republic of the Congo is the largest country in Central Africa in terms of size and population, with 92 million people spread across 2,345,409 square kilometres of landmass.

The economy grew 5.7% in 2021, driven by mining output and high global copper and cobalt export prices. Strong raw material exports (11.5%) and private investment (9.8%) fuelled the nation's growth.

The economy relies heavily on its mining and services industry. Domestic demand has driven economic growth over the years. After Algeria, the Democratic Republic of the Congo is the second-largest country in Africa in terms of land area.

The Democratic Republic of the Congo's foreign direct investment (FDI) inflow in 2021 was the highest since 2016. The growth was driven by strong inflows in offshore oil fields and mining.

Government incentives and policies for ICT/BPM

Exemptions and tax breaks aim to bolster the sector

Several incentives and policies govern the establishment and operations of businesses in the Democratic Republic of the Congo. These are outlined below.

Business development incentives

The regulatory information shown below is based on inducements offered to foreign businesses. Incentives are generally reduced tax rates or exemptions, including:

- Exemption from corporate tax
- Exemption from property tax
- Exemption from import duties on equipment and other materials. However, the investor must pay an administrative fee of 2% on importation and 16% VAT. The tax authority reimburses VAT.
- Exemptions from export duties on finished products

Information and communications technology landscape

The technology sector is in the early stages of development

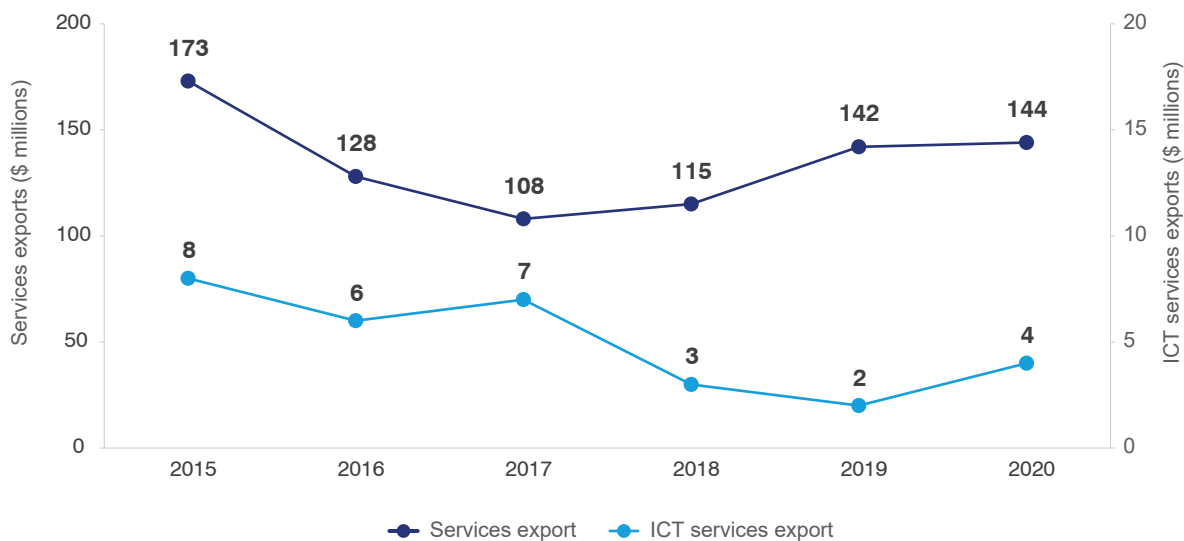
The Democratic Republic of the Congo exported \$4 million in ICT services in 2020, according to the World Bank. This is a 50% decline from the \$8 million reported in 2015.¹⁰⁵

Still, the outlook for the tech sector is promising. The large market size and the country’s location in the centre of Africa make it very attractive to ICT providers.

Many improvements are being made to the ICT infrastructure in the Democratic Republic of the Congo. The Government and China International Telecommunication Construction

Corporation have invested heavily to develop a fibre-optic backbone network. The investment aims to connect the major economic epicentres of Kinshasa, Lubumbashi and Kisangani to the rest of the country and improve mobile network infrastructure. The first two phases of the programme have been completed. As per the World Bank’s *Implementation and Completion Results* report¹⁰⁶ published in March 2022, Democratic Republic of the Congo secured a grant of \$92 million for the fifth phase (AFR RI-Central African Backbone SOP5).

Figure 7 ICT contributes little to service exports¹⁰⁷



Source: World Bank



Why is the technology sector appealing?

Attractiveness factors



Favourable time zone

A difference of 1–3 hours with most European countries.



Young workforce

with almost 65% of the population aged 25 and under¹⁰⁸



Competitive labour costs

with an average monthly wage of \$120



Strong government focus on ICT development

exhibited through investment to improve ICT infrastructure

Main highlights

ICT service exports (2020): ~ \$4 million¹⁰⁹

Average monthly wage (IT/BPM services):
~ (\$120–\$380)¹¹⁰

Main IT/BPM service offerings: Business administration, human resources and payroll, customer service and telemarketing

Key industries served: Mining, telecommunications, agriculture, manufacturing, government, NGOs, energy and financial services

Primary markets served: China, Belgium, South Africa, Angola, Zambia and the United States

Key IT/BPM associations and agencies:

- *Autorité de Régulation de la Poste et des Télécommunications du Congo*
- *Société Congolaise des Postes et Télécommunications*

Key cities and technology centres

The largest city in the Democratic Republic of the Congo is its economic epicentre, Kinshasa. Almost 15 million people live in the capital and its urban area. Other notable cities include Mbuji-Mayi (2.6 million people), Lubumbashi (2.5 million people), Kananga (1.5 million people), Kisangani (1.2 million people) and Bukavu (1.1 million people).¹¹¹

The country, known for its budding ICT ecosystem, is home to an estimated 30+ tech hubs. Most are in Kinshasa,

the most attractive city in terms of IT/BPM skill availability and demand. Various ICT conferences, such as Kinshasa Digital Week and the Kinshasa Start-up Summit, take place in the city.

Mobile operators and internet providers are the major partners to incubators and have been the catalyst for ICT development in the Democratic Republic of the Congo.

Figure 8 Kinshasa is the technology epicentre



Kinshasa - Largest city and the economic and technology epicenter of the DRC

Population: ~15 million

Industries: Telecoms, finance, retail, manufacturing, healthcare

Source: Avasant Research

Table 19 Tech hubs in Democratic Republic of the Congo

City	ICT hubs/tech parks/incubators ¹¹²
Kinshasa	<ul style="list-style-type: none"> ▪ Kinshasa Digital ▪ Silkon Bantu ▪ LLab (Digital Lumumba Lab) ▪ Konnect ▪ Congo iHub ▪ Kobo Hub ▪ Ingenious City ▪ Congolia ▪ Bakeli ▪ Zair’Innov ▪ Start IT Congo ▪ Kinshasa Startup Academy ▪ Kolissa ▪ ProxyTech ▪ Hub RDC ▪ Incubaxe ▪ Media Lab
Lubumbashi	<ul style="list-style-type: none"> ▪ Cinolu
Kivu	<ul style="list-style-type: none"> ▪ Kivu Hub ▪ Kivu Entrepreneurs ▪ EBIC

Source: Avasant Research

The state of competition: Understanding the landscape



The technology sector is in its infancy

Some highlights of the IT/BPM sector include:

- **Most IT/BPM** providers are based in Kinshasa, the capital city and economic epicentre.
- **Competition in the sector** comes from large organizations that provide support services and a handful of SMEs that offer specialized services.
- **The major sectors serviced** are mining, agriculture, telecommunications, financial services and not-for-profit.
- **Providers offer a limited range of services.** Most services focus on helping foreign businesses set up operations, human resources and payroll services, tax, telemarketing and customer service.
- **The Government regulates the sector’s growth.** Outsourcing in the country is seen as a way to bypass labour regulations and eliminate the difficulties of managing a permanent staff base. Workers in the sector are generally on part-time contracts and receive lower salaries than permanent staff – sometimes as little as half of the wages paid to permanent staff.
- **Plan National du Numérique.** The Government adopted a new vision for its digital economy in September 2019. The vision is to make the digital economy a key driver for economic growth in the country. Through that vision, the Government introduced four pillars: infrastructure, application uses, content and governance. These four pillars are further branched into 68 priority actions, such as providing universal electricity access, implementing internet community centres and revising digital skills curricula.
- **The introduction of the 8th National Development Plan will boost ICT development.** Along with agriculture, manufacturing, tourism, economic free zones and the promotion of real estate, the National Development Plan 2022–2026 emphasized the growth of the digital economy as one of its six main pillars. This digitization operationally results in expanding the national optical fibre network to reduce the cost of internet connections.¹¹³
- **World Bank approves \$750 million to support critical governance reforms, transport infrastructure and digital connectivity.** In 2022, as part of its deepened engagement in the Democratic Republic of the Congo, the World Bank Board of Directors approved a \$250 million development policy operation for foundational economic governance reforms and \$500 million to strengthen transport and connectivity in the country. The International Development Association financed both projects.¹¹⁴

The next table lists some of the service providers operating in the Democratic Republic of the Congo, the primary services offered and the industries served. No international BPM provider is based in the country.

Table 20 Notable service providers based in the country

Service provider	Location	Examples of services offered	Industries served
Congo Call Center (CCC) 	Kinshasa	Services include: <ul style="list-style-type: none"> ▪ customer service ▪ SMS and e-mails ▪ database qualification ▪ mystery shopper ▪ training programs 	Sector-agnostic
MD Services Sarl 	Kinshasa	Outsourcing services include: <ul style="list-style-type: none"> ▪ recruitment ▪ staff training ▪ contracts management ▪ payroll and compensation 	Mining, construction

Source: Avasant Research

Service capacity and capability

The labour force needs better digital skills

The World Bank 2018 HCI, which measures a country's investment in the education and skills of its population, ranks the Democratic Republic of the Congo at 146th of 157 countries.¹¹⁵ In the 2020 update of HCI, the Democratic Republic of the Congo scored 0.37 on a scale of 0–1. The indicator is calculated by comparing the productivity of the upcoming workforce to the standard of full health and education.¹¹⁶

The Government and international organizations are working to improve education and human capital. The United Kingdom's Department for International Development and the United States Agency for International Development (USAID) jointly funded a programme to improve education in the Democratic Republic of the Congo under the latter's 2015–2019 Country Development Cooperation Strategy.¹¹⁷

The table below examines the talent availability and capability for the IT/BPM sector as well as its scalability prospects and opportunities.

Table 21 Capacity and capability in Democratic Republic of Congo

Talent and skill availability	
No. of universities and colleges: 600+	About 65% of the population is 25 years of age and under. The youth literacy rate stands at 86%. Although the country has an abundance of labour in the job market, most of the workforce is employed in the informal sector. ¹¹⁸
Youth unemployment (15–24 years): ~10% ¹¹⁹	
Tertiary, gross enrolment ratio: 6.6% (2016)	
Secondary gross enrolment ratio: ~ 46.2% (2015)	
Labour laws in the Democratic Republic of the Congo require that at least 10% of the staff of companies with at least 100 employees are local. This low local staff percentage means foreign workers frequently fill technical and highly skilled roles.	
Quality and employability of talent ¹²⁰	
Quality of vocational training: Ranks 132nd of 141 countries	The statistics in this section have been sourced from the WEF 2019 Global Competitiveness Index. On a scale of 1 to 7, the scoring assesses how well the education system meets the needs of a competitive economy, with 1 representing not well at all and 7 exceptionally well.
The skill set of graduates: Ranks 132nd of 141 countries	
Ease of finding skilled employees: Ranks 117th of 141 countries	
Digital skills in active population: Ranks 138th of 141 countries	
Literacy	
<ul style="list-style-type: none"> ▪ Youth literacy: 82% (2018)¹²¹ ▪ Adult literacy: 80% (2018)¹²² 	Global Competitiveness Index rankings were paused as of 2020.
English proficiency: Low French proficiency: High	
Scalability	
The Democratic Republic of the Congo has high potential in terms of scalability. The country had an estimated workforce of 32 million people in 2021. The Government has an 'education for all' goal it hopes to achieve by 2030. With support from international organizations, this programme aims to improve education and reduce poverty.	
Continued government investment in education and human capital could help the country become an attractive market for skilled sourcing talent.	

ICT infrastructure

Despite improvements, more upgrades are needed

The Democratic Republic of the Congo ranked 138 of 141 countries on ICT adoption, according to the WEF Global Competitive Index 2019.¹²³ GSMA’s Mobile Connectivity Index analyses country performance according to infrastructure, affordability, consumer readiness and content availability. The country’s index score was 30.49 in 2021, on a scale of 0–100. The country is among the 17th least developed economies on the index and the 13th least developed in sub-Saharan Africa.¹²⁴

Fixed-line infrastructure, like in most low-income African countries, requires improvements. Therefore, most people in the country rely on cellular networks to communicate and access information. Furthermore:

- In 2022, mobile phone connections stood at 47% of the population and about 15% of mobile users had access to mobile broadband.¹²⁵
- 2G is the prevalent mobile network available, covering 75% of the country.¹²⁶
- 3G connectivity is rising, with a penetration rate of 54% in 2021 – up from 41% in 2017.¹²⁷

A lack of internet connectivity hinders the development of ICT in the country. In addition:

- Fewer than 10% of businesses have websites. Most use social media platforms to promote their businesses.

Table 22 Infrastructure improvements offer many opportunities

Telecom ¹²⁸
<ul style="list-style-type: none"> ■ Fixed telephone subscriptions (per 100 people) – 0.001 ■ Mobile cellular subscriptions (per 100 people) – 46 ■ % of the population with access to 3G – 54%
<p>Wireless is the common method to access information. There were 39.63 million mobile connections in January 2021. However, access varies significantly by location. Mobile phone penetration is estimated at 80% in urban areas and 20% in rural areas. Inadequate infrastructure and the costs of mobile services are major challenges affecting the penetration of mobile phones in the Democratic Republic of the Congo.</p>
Broadband/bandwidth ¹²⁹
<ul style="list-style-type: none"> ■ Fixed broadband subscriptions (per 100 people) – 0.001 ■ Active mobile broadband subscriptions (per 100 people) – 16.2 ■ Individuals using the internet (% of the population) – 14% ■ International Internet bandwidth per internet user (kilobits per second) – 0.5
<p>Only about 15% of mobile phone users have access to the internet.</p>
Energy and power ¹³⁰
<ul style="list-style-type: none"> ■ Installed capacity: 2,844 MW ■ Access to electricity (% of the population): 9% ■ Urban (% of urban population): 19% ■ Rural (% of rural population): <5% ■ People without power (2020): 75 million households (81% of the population)¹³¹
<p>Electrification rates are meagre compared to the rest of the world. According to USAID, 9% of the population has access to electricity.¹³² Hydropower generates 99% of the energy produced in the country. Electricity supply has improved little because the national electric grid is not interconnected and the infrastructure has been damaged by weather conditions or conflict.</p> <p>The Democratic Republic of the Congo aims for 65% of its population to be connected to the electricity grid by 2025. The Government is also targeting universal electricity access for its citizens by 2030.¹³³</p>

Source: Avasant Research

Business registrations

The law establishing the investment charter, No. 6-2003 of 18 January 2003, laid down the existing investment framework in the Democratic Republic of the Congo. Decree No. 2004-30, issued on 18 February 2004, established the methods for business registration in the charter application.¹³⁴

Table 23 Registration procedure

Business registration procedure
<p>The business registration procedure shown below has been excerpted from the International Trade Administration.¹³⁵</p> <p>Steps to establishing a business:</p> <ul style="list-style-type: none"> ▪ Complete the application form on the online registration portal – <i>Guichet Unique</i>. ▪ Apply with other required documentation at the <i>Guichet Unique</i> or register online. <hr/> <ul style="list-style-type: none"> ▪ Get a receipt from the <i>Guichet Unique</i> and pay the required fees at a designated bank. ▪ Request a registration certificate from the Trade and Personal Property Credit Register. <p>Required application information:</p> <ul style="list-style-type: none"> ▪ For corporations: a completed application form, four copies of the company charter, a Statement of Subscription (a document outlining the ownership structure of the company's shares), evidence of available capital, the manager's signature and copies of the shareholders' and the managers' identification documents. ▪ Single-person businesses: a duplicate of the applicant's identification documents, criminal history, address proof and signature <p>Other details:</p> <ul style="list-style-type: none"> ▪ Corporations are not subject to any minimum capital requirements. Limited liability firms must provide a minimum of \$20,000 in capital. ▪ Corporations must pay the \$110 <i>Guichet Unique</i> fee to have their company charter certified, register with the Trade and Personal Property Credit Register, publish their charter in the <i>Official Journal</i> and be authorized to operate and acquire a licence. ▪ Sole proprietorships pay \$40 for a national identification number, business registration and authorization to open a business. ▪ It should be noted that some sectors have additional requirements for starting and conducting commercial activities.

Source: Avasant Research

Technology policy focus

Three government bodies are responsible for IT/BPM regulation and compliance:

- Autorité de Régulation de la Poste et des Télécommunications du Congo
- Agence de Régulation des Postes et des Communications Électroniques
- Société Congolaise des Postes et Télécommunications

Table 24 Regulatory environment

Income and taxation	<p>Corporate taxation:¹³⁶ The 30% tax rate applies to incorporated firms and subsidiaries or branches of a foreign company in the Democratic Republic of the Congo.</p> <p>Minimum income tax¹³⁷ – Minimum 1% tax on annual turnover for companies other than micro and small companies. Microenterprises are subject to a yearly lump-sum tax of CDF 50,000 (\$20). Small firms pay:</p> <ul style="list-style-type: none"> ■ 1% of turnover for the supply of goods and 2% for the supply of goods. <p>Withholding taxes:</p> <ul style="list-style-type: none"> ■ Dividends – A company’s dividends are subject to a 15% withholding tax unless a different rate is mandated by an international tax treaty (e.g., France, Italy, Mauritius, Economic and Monetary Community of Central Africa). Dividends paid to a resident shareholder are taxed at the same rate. ■ Interest – Interest paid to residents and non-residents is subject to a 20% withholding tax. An exemption applies to interest paid to mining companies if certain conditions are met. ■ Double taxation agreements are in force with Belgium and South Africa. <p>Other taxes on corporations:¹³⁸</p> <ul style="list-style-type: none"> ■ Social security contributions by an employee are 4% of gross salary (maximum – €21,953) ■ VAT is 18% ■ Unique tax on salaries – The lump sum tax on salaries, apprenticeship tax, national housing fund contribution and national employment office contribution is replaced with a unique tax on salaries at a rate of 7.5% on gross pay. ■ No local taxes
Labour laws ¹³⁹	<ul style="list-style-type: none"> ■ The minimum daily wage is CDF 7,075 (~\$2.95)¹⁴⁰ ■ For companies with more than 100 employees, 10% of employees must be local. ■ The law specifies rest periods and premium pay for overtime for various jobs, ranging from 45–72 hours. ■ The Ministry of Labour employs 200 inspectors. ■ Any employment contract should be in writing and mention certain details. In the absence of a written agreement, the employee may prove the existence and scope of the contract by all legal means, including witnesses. ■ Every employment contract must be either open-ended or for a set period. The contract is assumed to be open-ended without a written agreement until documented proof to the contrary is provided in writing. ■ The Labour Code stipulates that every employment contract can include a probationary period, provided this period is specified in writing. Depending on the employee’s specialization, it does not exceed one to six months.

Work permits and business visas¹⁴¹

The immigration authorities issue the following visas for expatriate workers:

- The *visa d'établissement de travail* is valid for one to two years, depending on the work permit validity.
- A *visa d'établissement de travail spécifique* can be delivered for up to one year and is not renewable.

Obtaining a work permit:

- Any employer willing to hire an expatriate must file a dossier with the regional employment office consisting of the following:
 - The application for an expatriate work card (*carte du travail*)
 - A draft employment contract
 - The resumé of the person under consideration
 - Evidence of the applicant's competence and professional capabilities
 - The job description
 - A list of all other expatriate employees
 - Any training, advanced training and professional adjustment programmes
 - A copy of the letter of application for the expatriate work card

The expatriate must then apply for an expatriate work card with the National Commission of Hiring Foreigners (*Commission Nationale de l'Emploi des Etrangers*). After receiving the work permit, the foreign national may apply for a visa for settlement with employment as specified by his/her place of employment's regulations.

Types of work visas available for foreigners:¹⁴²

- Standard – Employees from outside the country who have contracts with a local business are eligible for this permission form. A typical permit will be good for one to two years, depending on the contract.
- Work-specific – Non-citizen employee may be granted this one-year visa if they intend to enter the nation temporarily to perform specialized employment. This option cannot be renewed.

Source: Avasant Research

Trade associations offer a helping hand to tech firms

The IT/BPM service sector is in its infancy. Most local organizations serve international NGOs and the agriculture, telecoms and mining industries. Several associations and bodies have been established to accelerate and maintain the growth of the ICT sector.

Table 25 Two key organizations work in the sector

Agency	Contact
<i>Autorité de Régulation de la Poste et des Télécommunications du Congo</i>	Website: https://www.arptc.gouv.cd/
<i>Société Congolaise des Postes et Télécommunications</i>	Website: http://www.scpt.cd/web/

Source: Avasant Research

Growing market potential

The technology sector serves many domestic industries

The healthcare, banking, finance and insurance services, telecommunications and manufacturing sectors have high growth potential. IT/BPM companies looking to set up businesses in the country should provide services supporting large firms operating in these sectors.

The primary factors they must consider are each sector's size and year-over-year growth, including expected growth, drivers of change, market trends and IT/BPM trends for the industry. These are outlined in the following table.

Table 26 Several fast-growing sectors have outsourcing potential

Healthcare	
Current health expenditure per capita: \$21 ¹⁴³	<ul style="list-style-type: none"> Healthcare expenditure represented 3.54% of GDP in 2019.¹⁴⁴ In June 2021, The World Bank provided \$50 million in funding, financed by International Development Association, to increase the quality and usage of reproductive, maternity and child services among the poorest households.¹⁴⁵
Current health expenditure as a % of GDP: 3.54% ¹⁴⁶	
Banking, Finance and Insurance Services	
Aggregate holding of banks in the country: \$5.1 billion ¹⁴⁷	<ul style="list-style-type: none"> Traditional financial institutions have been unable to reach low-income customers, especially those living in remote areas, due to the cost structure of retail financial services. About 15% of the population has a bank account. This banking penetration rate is half the sub-Saharan African average.¹⁴⁸ Improvements in mobile phone penetration and broadband connectivity mean banks can offer innovative financial services to customers who might be hard to reach or deemed too expensive to serve. One development bank, SOFIDE (<i>Société Financière de Développement</i>), 120 microfinance institutions and cooperatives, 78 money transfer institutions – most of which are concentrated in Kinshasa and the former Katanga provinces – three electronic money institutions, more than 16 foreign exchange offices and 19 licensed banks make up the country's financial sector.¹⁴⁹
Total financial assets as % of GDP: 24.7% ¹⁵⁰	
Telecommunications	
Telecom market size (2021): ~ \$1.4 billion ¹⁵¹	<ul style="list-style-type: none"> The country's population is expected to reach 200 million by 2050,¹⁵² and 60% of this population will be under 25 years of age. The telecommunications sector is at a nascent stage, but has much growth potential. The sector faces sub-par infrastructure. Road networks require improvements, the power supply is erratic and skilled workers are scarce. More than half of the world's cobalt resources are found in the Katanga region of the Democratic Republic of the Congo, and more than 70% of the world's current cobalt production originates here. By 2030, demand for cobalt is expected to increase fourfold in tandem with the rise in electric vehicles.¹⁵³ Electric vehicle sales are predicted to account for 10% of all passenger car sales globally by 2025, 28% by 2030 and 58% by 2040.¹⁵⁴
Value added by the manufacturing sector as a percentage of GDP: 17% ¹⁵⁵	

Source: Avasant Research

Market access opportunities

Health, finance, telecoms and manufacturing show the most promise

The IT/BPM sector in the Democratic Republic of the Congo is still in its infancy. However, the large market and the country's location in the middle of the continent make it an appealing base to service other African countries.

The market access opportunities discussed in this section focus on established business sectors with high growth potential that could be serviced by IT/BPM organizations.

Table 27 Three sectors offer different opportunities

Industry	Service area	Description
Healthcare	<ul style="list-style-type: none"> ▪ Digital health solutions ▪ Healthcare application services ▪ Customer and data management 	<p>The <i>Plan National de Developpement Sanitaire, 2016–2020</i>, drew more attention and investment to the health sector.</p> <p>The Government and international agencies such as the United Nations Children's Fund, the World Health Organization and USAID have been the major drivers and implementers of reform in the health sector.</p> <p>The main opportunities for IT/BPM providers include the following:</p> <ul style="list-style-type: none"> ▪ Enterprise resource planning and customer relationship management systems – development and maintenance ▪ Customer records management ▪ Customer support ▪ Healthcare application maintenance ▪ Telemedicine ▪ Electronic medical records system solutions ▪ Insurance registration and claims systems ▪ Mobile health solutions ▪ Hospital management information system solutions ▪ Health information system solutions ▪ Insurance registration and claims systems
Banking, finance and insurance services	<ul style="list-style-type: none"> ▪ Digital payments ▪ Online banking ▪ Peer-to-peer lending ▪ Personal Finance ▪ Insurance ▪ Mobile remittances 	<p>Improved mobile penetration rates, better ICT infrastructure and mobile broadband access in rural areas present a chance to create and manage more mobile banking and insurance services.</p> <p>The main opportunities for IT/BPM providers include the following:</p> <ul style="list-style-type: none"> ▪ Contact centre technology ▪ Back-end contact centres ▪ Business research and analytics ▪ Legal process outsourcing ▪ Business administration
Telecoms and manufacturing	<ul style="list-style-type: none"> ▪ Customer service ▪ Managed IT ▪ Business administration 	<p>Global demand for lithium batteries and electric vehicles boosts the appeal of DRC for its mineral wealth.</p> <p>Meanwhile, mobile network providers are heavily investing in the Democratic Republic of the Congo's telecom sector, focusing on expanding services and customer base.</p> <p>Key opportunities include contact centre, e-project management, business research and analytics, legal process outsourcing, and business administration and procurement.</p>

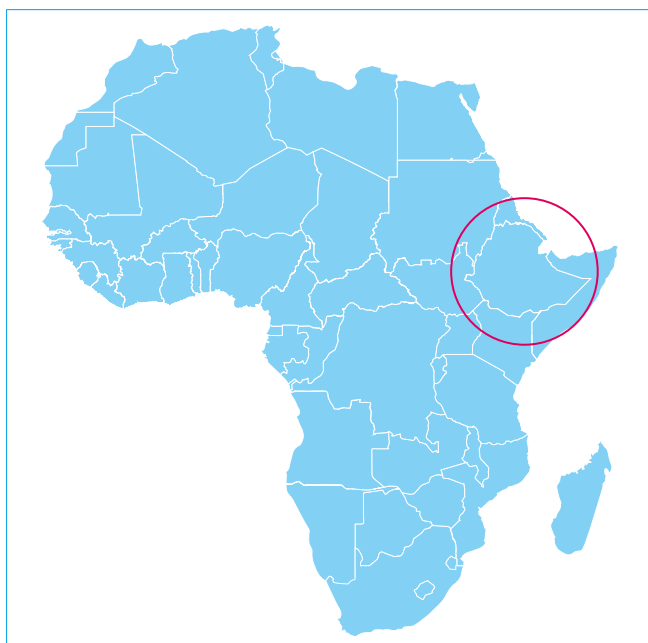
Ethiopia

Ethiopia continues to invest to expand and upgrade its telecommunication system. The ICT landscape is rapidly evolving with active government participation in building ICT infrastructure



ETHIOPIA

Macroeconomic and country data



Capital: **Addis Ababa**

GDP 2021 (Constant 2015 prices): \$100.43 billion

GDP per capita 2021 (Constant 2015 prices): \$835

Projected real GDP growth 2022: 3.8%

Inflation rate (2021): 26.8% (Consumer inflation)

Population (2021): 117 million

- 0–14 years: 39.56%
- 15–34 years: 36.60%
- Median age – 19.5 years
- Population growth rate: 6.3% (YoY)

Major business sectors: Agriculture, agroprocessing, textiles, food processing, construction, manufacturing, energy, tourism

Official unemployment rate 2021: 3.7%

Literacy rate: 52%

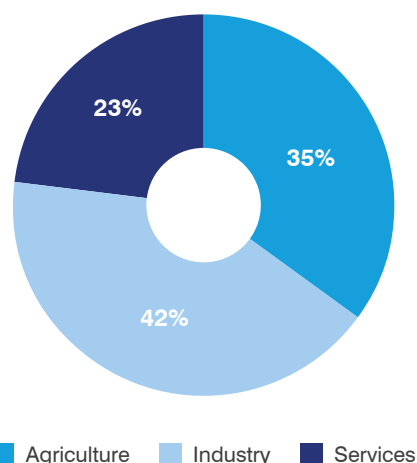
Urbanization 2021: 21%

Major trade and industry associations:

- *Ethiopian Chamber of Commerce and Sectoral Associations*
- *Ministry of Innovation and Technology*

Sources: World Bank (GDP, GDP per capita, unemployment rate, literacy rate, general stats), World Data (inflation), International Monetary Fund (projected real GDP growth), Statistics Times (population), Worldometers (urbanization rate, median age), Global Edge (GDP composition), Observatory of Economic Complexity (OEC) – (trade statistics)

GDP composition (2020)



Key facts

Currency: Ethiopian birr

Exchange rate (per \$): ETB 54.75 (July 2023)

Foreign direct investment inflow 2021: \$4.26 billion

- Flows to Ethiopia rose by 79% year-on-year (YoY)
- Chinese investments tripled in 2021
- 80% of international project finance announcements were in renewables

Major languages: Amharic, Oromo

Major religions: Christianity, Islam

Major exports: Coffee, gas turbines, gold

Country highlights

Ethiopia is one of the fastest-growing economies in the region. It registered a growth rate of 6.3% in 2021. In 2020, the most valued exports from Ethiopia were coffee (\$860), oily seeds (\$384), gas turbines (\$328), vegetables (\$261) and gold (\$194). The United States, Somalia, Hong Kong (China), United Arab Emirates and Saudi Arabia are the top export destinations.

The services sector leads Ethiopia's foreign exchange earnings. State-run Ethiopian Airlines is the primary exchange earner for the country, followed by commodity exports. In terms of products, coffee is the largest foreign exchange earner.

However, realizing the risks of relying heavily on a single export commodity, Ethiopia is steadily diversifying its exports to include commodities such as gold, khat, sesame, horticulture and livestock products.¹⁵⁶

Government incentives and policies for ICT/BPM

Exemptions and tax breaks aim to bolster the sector

New investment incentive¹⁵⁷

On 21 May 2022, the Council of Ministers of Ethiopia approved a new Investment Incentive Regulation Number 517/2022. By extending the reach of investment incentives, it hopes to increase investment in Ethiopia.

The regulation says that:

- An investor who invests in launching a new firm is entitled to a time-limited income tax holiday;
- Investors who invest in locations outside Addis Ababa or other significant towns with underdeveloped infrastructure are entitled to a 30% income tax reduction for three consecutive years.

ICT is one of the critical sectors targeted by the regulation, along with hospitality, agriculture, health, logistics and transport.

The incentives have been categorized as follows:

- Business location incentive
 - After the tax holiday expires, an investor who invests in a region remote from major cities or has subpar infrastructure is eligible for an additional 30% income tax credit for three consecutive years.
 - New investments made in hotels and properties such as hotels in specific tourist areas will benefit from a five-year income tax exemption.
- Labour mobility
 - Employers who offer qualified and authorized Ethiopians the chance to work abroad will be eligible for a one- to three-year income tax holiday.
- Expansionary incentives
 - The additional income brought in by an expansion will be excluded from income tax for investors upgrading or expanding an existing venture.

- Export of goods and services

- In addition to the standard tax holiday, investors who invest outside industrial parks and export or supply at least 60% of their goods or services will qualify for a one-time income tax exemption for two years. This also holds for investors who invest in industrial parks and export at least 80% of their goods or offer supplies to exporters.

- Customs duty exemptions

- Construction supplies and capital products are exempt from customs charges under the regulation. An investor may import construction supplies or capital goods duty-free for either new investments or the improvement of existing investments.
- If they buy the goods from local manufacturing businesses, investors are also eligible to be reimbursed, the import duty they paid on the raw materials or components used as production inputs.
- The regulation also lays forth guidelines for the transferability of duty-free goods and products and applicable fines for violations.

The regulation also covers additional important issues on tax incentives, such as the upkeep of accurate records, reporting obligations and the administrative responsibilities of various government departments and investors.

Plan of Action for Job Creation 2020–2025¹⁵⁸

The Plan of Action for Job Creation offers a fresh perspective on employment in Ethiopia and suggests actions to address employment and job creation concerns. To absorb the present unemployed, the plan calls for creating 14 million new jobs by 2025 and ensuring that positions are available for new workers entering the labour force.

The strategy intends to support the business environment and the conditions required for these outcomes. The plan was created after extensive discussions with key players in the public and commercial sectors. A fundamental paradigm shift from state-led to private-sector growth was considered when creating the plan.

Key objectives:

- Implement job-rich macro-policies by ensuring macroeconomic stability, maximizing the potential for public investment to create jobs, enhancing the financial industry and modernizing the institutional and statistical foundation for job-rich macro-policies.
- Create a thriving local private sector through the effective support of high-potential and high-growth micro, small and medium-sized enterprises and the enhancement of business development services.
- Increase the level of work readiness of the labour force, ensuring its proficiency in relevant skills, enhance the entrepreneurial mindset and create more efficient links between educational institutions and industries to help develop human capital to meet the shifting needs of the labour market.
- Improve labour market social and spatial mobility and labour market intermediation and interconnections by building contemporary employment centres that offer efficient employment services and creating a labour market information system to lessen information asymmetry.
- Increase the labour market's diversity by offering specialized services to groups that aren't included in it as well as to vulnerable groups including refugees, immigrants and people with disabilities.
- Provide a more balanced development policy with emphasis on achieving the job-creation potential of subsectors in agriculture, industry and services:
 - Realize the job-creation potential of potential high-yield sectors.
 - Improve outputs in the agricultural sector (with a focus on horticulture and poultry) by enhancing essential inputs and services, such as small- to medium-scale irrigation, improving access to financial services and constructing links between industries (such as agroprocessing) and urban markets.
 - The industrial sector includes manufacturing, establishing efficient backward and forward links, encouraging inventive and diversified local production, and construction.
 - Grow ICT as a sector capable of assisting the services industry and guiding the country's shift to an inclusive digital economy.

Ethiopia digital strategy¹⁵⁹

Digital Ethiopia 2025 aims to digitize services in traditional areas including industry and agriculture. The strategy focuses on investments in contemporary agricultural technology. Further, digitization of public-sector services, such as the creation of a national ID database, would increase productivity and ensures easy access to digital services for Ethiopians.

Ethiopia's digital economy is still in its infancy, with a few private-sector companies providing online services and a few government-sponsored projects.

Key objectives of Digital Ethiopia 2025:

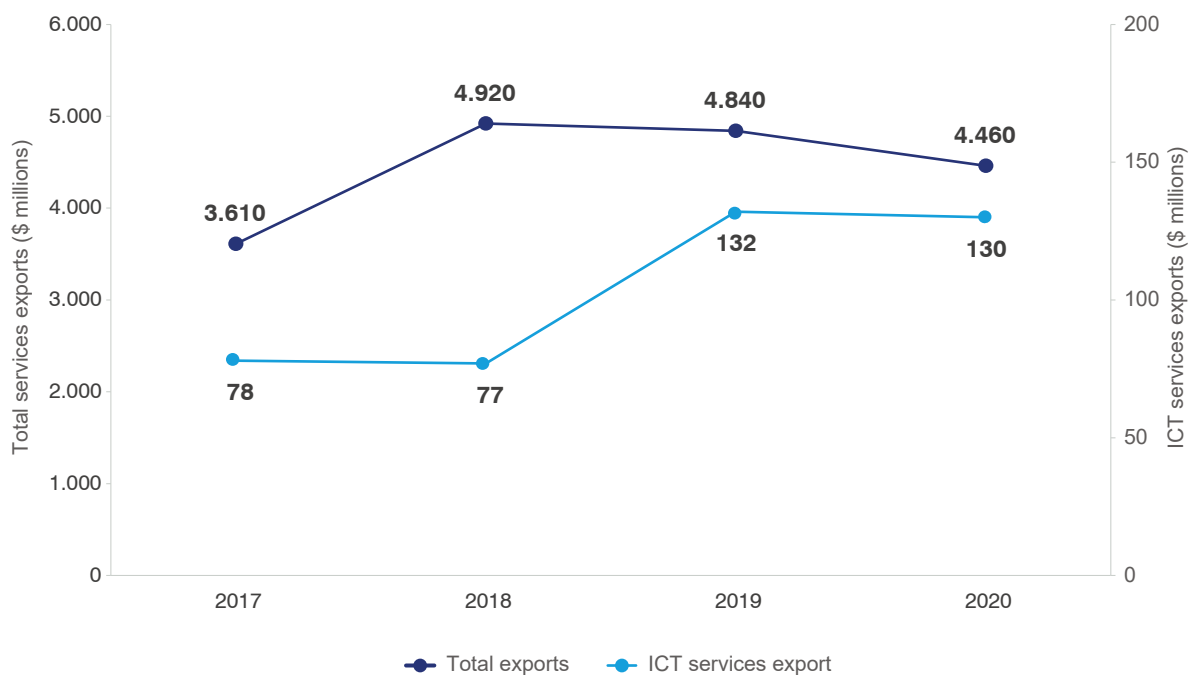
- To put in motion a comprehensive digital economy strategy that will help Ethiopia realize its larger development goals
- To serve as a visionary overarching strategy for other sectors
- To design and jointly develop action-oriented plans with appropriate spending plans, timetables and key performance indicators
- To bring in a sense of urgency to ICT development in Ethiopia
- To mobilize key players to address the need for an inclusive digital economy
- To coordinate and bolster ongoing projects so the most practical and strategic routes are investigated to unlock growth and maximum impact
- To strengthen Ethiopia's position in regional and international value chains while using best practises and interoperable systems

ICT landscape

Ethiopia's ICT landscape is still relatively underdeveloped. The Government is the major ICT services consumer in the country. The communications industry contributed 2% to GDP in 2020–2021, which is low compared to the 4% average GDP contribution in East Africa. Wireless penetration in Ethiopia is relatively low at 56.2%, compared to the sub-Saharan African average of 75%. In 2020–2021, fixed and mobile line telephone density per 100 people was 1% and 54%, respectively.¹⁶⁰

In 2017, Ethiopia exported \$78 million in ICT services, accounting for 2.17% of total service exports. Exports of ICT services grew at a compound annual growth rate (CAGR) of 11% in 2017–2021, while overall services exports declined at a CAGR of 4% over the same period, underscoring the growing importance of IT/BPM to the economy. ICT services exports were valued at \$130 million in 2020, up 67% from 2017.

Figure 9 ICT service exports rise as total exports decline



Source: World Bank ([Services exports](#), [ICT services exports](#))



Ethiopian technology sector

Attractiveness factors



Labour force participation

Ethiopia's labour force participation rate for 2021 was 78.5%.¹⁶¹



Growing workforce

with roughly 2 million individuals reaching working age per year¹⁶²



Young workforce

with more than 43 million people between 15 and 35 years¹⁶³



Strong government focus

with parliament creating the Ethiopian Communication Authority to license and regulate communication operators¹⁶⁴

Main highlights

Average salary (monthly): ~ \$88–\$278¹⁶⁵

Median salary (monthly): ~ \$173¹⁶⁶

Main IT/BPM service offerings: Back-office support services, web development, web hosting, ICT consulting, security management, cyber security management

Key industries served: Government, public institutions, logistics, consumer retail, manufacturing

Primary markets served: African subcontinent, United States, United Kingdom and Europe

Examples of buyers:



Key IT/BPM associations and agencies:

- Ethiopian Communication Authority
- Ethiopian Investment Commission
- ICT Association Ethiopia

Emerging associations

- Ethiopia Business Process Outsourcing Association
- Ethiopia Start-up Association
- Ethiopia Youth Entrepreneurs Association
- Ethiopia FinTech Association

Source: Avasant Research

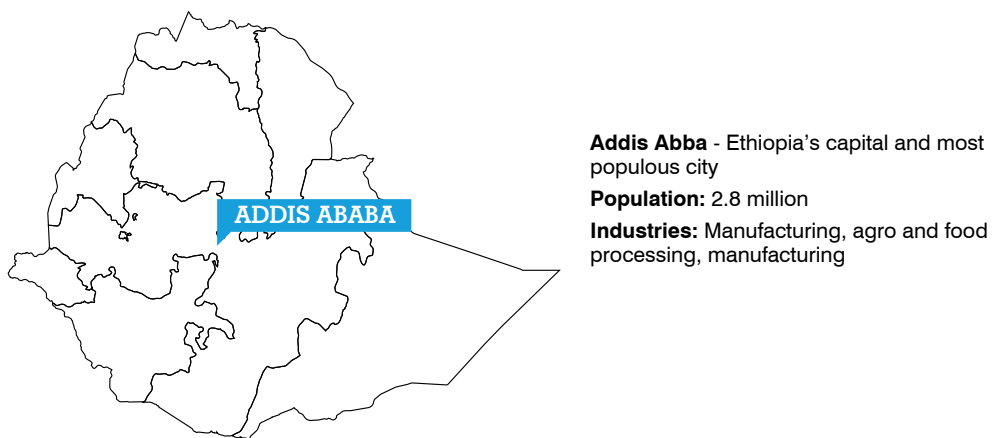
Key cities and technology centres

Tech firms are concentrated in Addis Ababa

Ethiopia’s capital Addis Ababa is the only city with more than a million people (2.8 million).¹⁶⁷ Nine cities have a population between 100,000 and 1 million people, and 84 cities have a population between 10,000 and 100,000 people.

The figure below highlights the Ethiopian city with the most active IT/BPM-enabling environment.

Figure 10 Addis Abba as the Ethiopian tech epicentre



Source: Avasant Research

Table 28 A few key hubs and tech parks

City	ICT hubs/tech parks/start-up hubs
Addis Ababa	<ul style="list-style-type: none"> ■ ICT Tech Park (IPDC) ■ Ethio ICT village

Source: Avasant Research

Role of the Industrial Parks Development Corporation of Ethiopia

The Industrial Parks Development Corporation is the primary government department responsible for developing industrial parks in Ethiopia. It allocates private industrial park developers to lease, sublease, sell or rent the industrial parks. The agency plans to develop 100,000 hectares of land between 2016 and 2025 for a factory floor area of 10 million m².¹⁶⁸

The ICT Tech Park in Addis Ababa, which began with 200 hectares in 2015, is one of the agency's premier ICT parks. It focuses on business process outsourcing, IT-enabled services and IT manufacturing. The tech park has five distinct zones: a commercial zone, a manufacturing zone (production and retail), a commercial centre zone, an

administrative offices zone and a research and development zone.¹⁶⁹

There are 28 Ethiopian investors who are stakeholders of the ICT park. Future plans for this park's development include providing one-stop services, data centre services, cloud collocation services, e-mail hosting, construction inspection services, operation and maintenance support, visitor services, wedding photo programmes, event and promotion services, and building rentals areas for a bank or ATM, billboards, a meeting place, a grocery, a cafeteria, a play area, a location for sports, a shuttle service, a parking lot and a car wash. The park has already created 1,272 permanent and temporary jobs for Ethiopia.¹⁷⁰

The state of competition: Understanding the landscape











Nascent market with potential for outsourcing and call centre services






Ethiopia has been relatively slow in adopting ICT compared to other sub-Saharan countries. However, the sector has enormous potential to contribute a major share to GDP, given Ethiopia's large IT market size compared to countries such as Ghana and Uganda.

Some highlights of the service provider landscape are described below:

- **Key locations:** Providers mainly operate out of Addis Ababa
- **Growing BPO market.** Many private companies in Ethiopia have a growing interest in the ICT sector, especially BPO. This newfound interest stems from the fact that a growing number of IT graduates enter the job market every year, and they have critical skills and provide the necessary manpower for BPO needs. There is tremendous opportunity in BPO subsectors, such as data entry services for government agencies. Simple process-optimization tasks such as scanning and digitizing the volumes of paper-based files in several government agencies alone can create thousands of jobs in Ethiopia.
- **Growing government participation in embedding ICT in the educational curriculums** Ethiopia recognizes ICT as an enabler for economic development, including better access to education, supporting literacy drives and facilitating training at all levels. This was a core plan in Ethiopia's 2016 National ICT Policy and Strategy.¹⁷¹ The strategy envisages ICT integration into teaching, learning and school administration systems by establishing schools' telecom and internet networks. Ethiopia has made rapid investments in technology-based learning.
- **Expanding ICT scope by the government:** The government has developed a list of some 200 e-services to be developed in the next several years. The plan is to expand ICT in industry, manufacturing and infrastructure modernization and facilitate better private-sector participation. Ethiopia also has plans to expand the subscriber base for mobile and broadband, expand international link capacity and enhance narrowband internet and fixed telephone services.¹⁷²
- **Prioritizing infrastructure development by companies:** Government-owned Ethio Telecom, the only telecom operator in Ethiopia, has finalized the schematics for infrastructure expansion as part of its Expansion Telephone Plan I plan. This is in association with China's Huawei Corporation, ZTE and Swedish firm Ericsson. The expansion focuses on providing telecom services to 15,000 rural villages in Ethiopia, with dedicated lines for education, agriculture, consumer use and health.¹⁷³

Table 29 Providers offer a range of services

Service provider	Location	Examples of services offered	Industries served
ZalaTech PLC 	Addis Ababa	Website design and development, software development, enterprise resource planning implementation solution, networking solutions and search engine optimization services	Healthcare, retail and commerce, travel and tourism, financial services, media
Barok Tech 	Addis Ababa	Search engine optimization services, UX/UI design, graphic design, branding, logo design, web development, advertising, web design, mobile app development	-
Alter Digital Solutions 	Addis Ababa	Graphic design, cybersecurity, custom software development, UX/UI design, digital strategy, marketing strategy, e-commerce development, content marketing, IT strategy consulting, direct marketing	Consumer retail, food and beverage industry
ERP Solutions PLC 	Addis Ababa	Enterprise resource planning solutions	Financial services, utilities and energy, manufacturing, construction, E-commerce, telecom, consumer goods
SICS IT Outsourcing 	Mickey Leland St. Knysna	Branding, web development, custom software development, search engine optimization services, graphic design	Services industry (hotels), government and public institutions, logistics, education
Ahaduweb 	Addis Ababa	Web development, web design, social media marketing, search engine optimization services, graphic design, logo design	Tour and travel, hotels and restaurants, e-commerce, government, NGOs
Real Web Hosting 	Addis Ababa	Search engine optimization services, web design, web development	-
251 Communications and Marketing 	Addis Ababa	Digital strategy, advertising, public relations, graphic design, media planning and buying	Media
Keentech System Development 	Addis Ababa	Custom software development, mobile app development, search engine optimization services, web development	-
Epion Computer Solutions PLC 	Addis Ababa	Pay-per-click services, custom software development, web development, search engine optimization services, web design	Consumer retail, food and beverage, aviation, logistics, tour and travels

<p>Qemer Software Technology PLC</p> 	Addis Ababa	Mobile app development, web development, web design and graphic design	Consumer retail, food and beverage, human resources
<p>Excellerent Solutions</p> 	Addis Ababa	Application transformation, managed services, quality engineering, digital experience, cloud management, mobile, Edge and Internet of Things, data engineering, enterprise resource planning, artificial intelligence and machine learning, data insight and analytics	Human resources, financial services, real estate
<p>Africom Technologies</p> 	Addis Ababa	Custom software development, IT consultancy and analysis, quality assurance/IT audit service, support and maintenance	Government, public institutions, multilateral development agencies, financial services
<p>IE Network</p> 	Addis Ababa	Cloud services, storage, OS and disaster protection systems, server, desktop virtualization, converged infrastructure, wireless LAN and software defined WAN, collaboration, infrastructure, networking, and security, enterprise resource planning solutions, big data and analytics	Real estate, education, retail, telecommunications
<p>R&D Group</p> 	Addis Ababa	IT consulting	Government, public institutions, multilateral development agencies, education, retail

Source: Avasant Research

Service capacity and capability

In 2020, Ethiopia's Human Capital Index was at 0.38, which is slightly higher than average for low-income countries but lower than the regional average for sub-Saharan Africa.¹⁷⁴ By 2025, Ethiopia hopes to become a lower-middle income country.

The table below looks at the availability and quality of talent in the Ethiopian IT/BPM sector and outlines its scalability prospects and opportunities.

Table 30 Tech skill availability

Talent and skill availability	
No. of public universities: 42 ¹⁷⁵	Ethiopia's higher education system comprises 42 universities and 677 academic institutions, including technical schools and vocational colleges. There are also 50 doctoral programmes at 11 institutions, 194 master's degrees at 29 universities and 433 bachelor's degree programmes offered by 40 universities.
Youth unemployment 2021: 5.72% ¹⁷⁶	
Annual enrolments and graduate forecasted in 2023: ¹⁷⁷ <ul style="list-style-type: none"> ▪ Enrolment: 491,680 ▪ Graduation: 65,648 	
The Government spends more than 35% of its budget on education. About 46% of the population is literate and 25% is enrolled in postsecondary institutions. There are more than 35 institutions of higher learning, 83 private universities and 42 state universities.	
There are 16,305 international students in Ethiopia. Both citizens and international students have the right to employment after graduation in the financial industry, construction firms, academic institutions, ministries and call centres. ¹⁷⁸	
Quality and employability of talent	
Quality of vocational training: Ranks 121st of 141 countries	Adult male literacy in Ethiopia stands at 59% ¹⁷⁹ and adult female literacy at 44%. ¹⁸⁰
The skill set of graduates: Ranks 128th of 141 countries	Ethiopia's national education budget allocation rose by 70% in nominal terms, from ETB 95.7 billion (\$1.79 billion) in 2017–2018 to ETB 162.2 billion (\$2.97 billion) in 2021–2022.
Ease of finding skilled employees: Ranks 115th of 141 countries	The number of out-of-school children has risen markedly due to the closure of schools during COVID-19 and drought-induced internal displacement.
Digital skills in active population: Ranks 100th of 141 countries	The sixth Education Sector Development Programme addresses the inequality in education budget allocation between general and higher education.
Literacy <ul style="list-style-type: none"> ▪ Youth literacy: 73%¹⁸² ▪ Adult literacy: 52%¹⁸³ 	Based on the WEF Global Competitiveness Index 2019, ¹⁸¹ Ethiopia performs below average in higher education and training, ranking 126 th out of 141 countries.
	The country performs below average in terms of the skill set of graduates, ranking 128 th (out of 141) on the extent to which university graduates have the skills that businesses need.
	On the ease of finding skilled employees, the country ranks 115 th . These scores illustrate gaps in the training, upskilling and quality of graduates entering the job market.
Scalability	
Efforts have been made to strengthen the ICT talent pool in Ethiopia, including: <ul style="list-style-type: none"> ▪ 2KO Ethiopia Training Programme, a division of 2KO Africa, 2KO offers IT training in Ethiopia in association with Africa IT Certification to Addis Ababa and the rest of Ethiopia. The courses include Microsoft, Cisco, Linux, CompTIA, Oracle and Sun. Further, 2KO Ethiopia partnered with Six Sigma for training in Addis Ababa.¹⁸⁴ 	

Source: Avasant Research

ICT infrastructure

Government initiatives support strong infrastructure

In 2019, Ethiopia embarked on a strategy to fuel its digital economy and give more homes and businesses access to reliable high-speed telecom services. Digitization would entail aligning the digital transformation process with the country's five-year Growth and Transformation Plan and the new 10-year (2020–2030) perspective plan introduced in November 2019.¹⁸⁵

The 10-year plan includes an export-led industrialization strategy targeted during the last two consecutive five-year plans. It reiterates Ethiopia's middle- to long-term vision, development goals to be achieved and policies followed in the next five-year plan (2020–2025).¹⁸⁶

Table 31 Advanced network infrastructure pays off

Telecom
<ul style="list-style-type: none"> ■ Fixed telephone subscriptions (per 100 people) – 1¹⁸⁷ ■ Mobile cellular subscriptions (per 100 people) – 39¹⁸⁸
<p>The National Bank of Ethiopia says that in 2021, there were more than 54 million mobile phone users, 1 million fixed lines and 24.5 million internet service subscribers in Ethiopia.¹⁸⁹</p>
Broadband/bandwidth (2020)
<ul style="list-style-type: none"> ■ Fixed broadband subscriptions (per 100 people) – 0.18¹⁹⁰ ■ People using the internet (% of the population) – 24%¹⁹¹ ■ International internet bandwidth per internet user (kilobits per second) 2016 – 5¹⁹² ■ % of households with internet access – 15.4%¹⁹³
<p>Fixed broadband subscriptions rose 237% to 212,000 in 2020 from 62,950 in 2017.¹⁹⁴ Fixed broadband penetration is low, however, at just 0.18 (per 100 people). Further, only 15% of Ethiopian households are connected to stable broadband. This is because of slow internet adoption in Ethiopia and a lack of market competition as state-owned Ethio Telecom is the only major player in the telecom space.</p> <p>Ethiopia ranks 73 of 233 countries on mobile data affordability in 2022, where the average price of 1 gigabyte of data is \$1 on a 30-day plan.¹⁹⁵</p> <p>The FDR Ethiopia ICT Policy National Broadband Plan 2016 emphasizes developing robust broadband infrastructure. The policy recognizes the massive impact of globalization and rapid technological change in today's hyper-digitized global economy. Due to the dynamic nature of the technology sector, it concludes that ICT-related policies should be reviewed systematically. Emphasis has been placed on policy initiatives, implementation projects and programmes. The primary focus of the policy is to provide broadband access to the general public and enable strengthened collaboration at regional and international levels.¹⁹⁶</p>
Power ¹⁹⁷
<ul style="list-style-type: none"> ■ Electric power consumption (kWh per capita) – 77¹⁹⁸ ■ Generation capacity <ul style="list-style-type: none"> – Installed capacity – 4,965.5 MW ■ Connections <ul style="list-style-type: none"> – Current access rate – 45% – Urban – 95% – Rural – 32%

Recent developments

In February 2022, Grand Ethiopian Renaissance Dam hydroelectric project started generating electricity for Ethiopia. The project, with a capacity of 5,000 MW, is Africa's largest hydroelectric project.¹⁹⁹

Ethiopia is focusing on generating electricity from wind farms. In September 2022, Aysha Wind Farm II connected successfully with the national grid; 16 of its windmills will generate power for Ethiopia. The wind farm, which has 48 windmills with a combined power generation capacity of 120 MW, is located near the Ethiopia-Djibouti border. Ethiopian Electric Power manages the wind farm.²⁰⁰

Cost of electricity²⁰¹

	Cost (\$) household, kWh	Cost (\$) business, kWh
Ethiopia	0.007	1.22
World average	0.140	0.135

Source: Avasant Research

Government incentives and policies

Liberalization of the banking sector²⁰²

The Government intends to permit foreign banks to buy up to 30% of the commercial banks in Ethiopia. After passing a draft resolution in 2022, the cabinet adopted the proposed policy. The Government is seeking to encourage competition, boost foreign currency inflows and create more jobs by bringing private actors to the banking industry.²⁰³ There are 30 banks in the nation, including two state-owned institutions, with a network of 8,944 branches.²⁰⁴

E-commerce²⁰⁵

Ethiopia has modified its economic and business policies over the last decade to attract investors and promote trade and commerce. E-commerce is a major contributor to creating employment opportunities in the country. Although the e-commerce industry is very new to Ethiopia, e-commerce is expected to generate opportunities for job creation – both direct and indirect. The government estimates that capturing just 0.5% of the domestic online retail trade could create close to 100,000 jobs. This estimate is based on several factors:

- The massive size of domestic market by virtue of being the second most populous country in Africa
- Large middle-class segment
- The country is a major transport hub in Africa

Furthermore, Ethiopian products such as coffee, leather goods and textiles have a favourable reputation in the international market. E-commerce is expected to leverage this reputation and open new markets for local SMEs. In addition, the AfCFTA agreement is expected to open new market opportunities for cross-border e-commerce transactions. Estimates show that the African e-commerce market will grow to \$75 billion by 2025, and the number of online shoppers in Africa will increase by 18% per annum.²⁰⁶

Registering a new business in Ethiopia²⁰⁷

The official authority permitted to register enterprises in Ethiopia is the Ministry of Trade and Industry. Any commercial activity must be registered in a commercial register before it may be carried out.

Table 32 Registration procedure

Business registration procedure
<ul style="list-style-type: none"> ■ In Ethiopia, a business licence is necessary to operate. To make the registration procedure easier, the Ministry of Trade and Industry offers its services through an online platform called the Online Trade Registration and Licensing System. ■ Before starting a business, anyone who opens branch offices in other locations must register them at their primary registration. ■ To obtain a business licence, an individual must first register with the central commercial register and the trade name register. ■ An individual must apply to the Ethiopian Investment Commission for an Ethiopian business and investment licence before starting a firm. The company must be first registered with the Ministry of Trade and Industry to allow the firm to operate. ■ The individual must obtain a tax identification number from the Ministry of Revenue's Ethiopian Customs Commission.

Source: Avasant Research

According to a 2019 World Bank report, it takes 32 days to launch a new firm in Ethiopia.²⁰⁸

The focus of tech policy in Ethiopia

Generally, outsourcing transactions are not regulated explicitly under Ethiopian law. However, various laws have an impact on outsourcing.

Table 33 Key economic reforms

Economic reforms ²⁰⁹
<ul style="list-style-type: none"> ■ Since 2018, the Government has been making significant reforms to open the economy to the private sector and attract FDI. These decisions include liberalizing key economic sectors and partially or completely privatizing state monopolies such as Ethiopian Electric Power and Ethio-Telecom. The Government has also started using public–private partnership programmes to involve the private sector in infrastructure and public works projects. ■ The Economic Reform Agenda, adopted in September 2019, aims to implement structural and institutional changes to address issues including foreign exchange imbalances, the weight of external debt, and the limited private sector's access to financing, strengthening these initiatives. The Government's Ten-Year Perspective Development Plan (2020–2030), published in June 2021, incorporates the Reform Agenda. <p>Many new laws and changes have been passed in recent years, such as:</p> <ul style="list-style-type: none"> ■ The Revised Commercial Code: Company Law in March 2021 ■ Investment Law in January 2020 ■ Business registration and licensing, enactment of the Commercial Registration and Business Licensing (Amendment) Proclamation No. 1150/2019 and Council of Ministers Commercial Registration and Licensing (Amendment) Regulation No. 461/2020 ■ Establishment of Capital Markets Proclamation No. 1248/2021 ■ The Excise Tax Proclamation No. 1186/2020, the Excise Tax (Amendment) Proclamation No. 1229/2020 and the Excise Tax Proclamation Implementation Directive No. 67/2020 were enacted in 2020 ■ Ratification of the United Nations Convention on Contracts for the International Sale of Goods through Proclamation No. 1220/2020 ■ National Digital Payments Strategy for 2021 to 2024

Labour laws²¹⁰	<p>Annual leaves and holidays:</p> <ul style="list-style-type: none"> ▪ After one year of service, employees are entitled to 16 paid holiday days plus one additional day for each consecutive year. The paid yearly leave for an employee with five years of service is 18 working days (one day extra for every two additional years of service). ▪ All public and religious holidays that fall on a festival are fully paid for by the employer. Memorial days and religious holidays are among them (Christian and Muslim origin). ▪ Every week, employees are entitled to 24 hours of uninterrupted relaxation. ▪ Probationary status must be announced in writing, although it cannot last longer than 60 working days. A worker rehired by the same employer for the same position is not eligible for probation. The same rights and responsibilities apply to probationers as to regular employees. ▪ A male employee is entitled to three consecutive days of paid paternity leave under the Labour Proclamation of 2019. ▪ Women employees are eligible for a complete paid maternity leave period spanning 120 working days, consisting of 30 days for antenatal care and 90 days for postnatal recovery, as prescribed by a qualified doctor. <p>Pay:</p> <ul style="list-style-type: none"> ▪ Equal pay ▪ Non-discrimination
Visa and immigration policies²¹¹	<ul style="list-style-type: none"> ▪ The Government issues electronic single-entry tourist visas to travellers who want to visit the nation for leisure travel or other non-business-related work. ▪ An Ethiopian single-entry tourist visa is valid for up to 90 days beginning on the intended arrival date. ▪ Travellers can visit the Immigration and Citizenship Service's headquarters to request an extension before their visa expires (Addis Ababa). Travellers who overstay their welcome without extending face fines and legal repercussions. <p>Fee</p> <ul style="list-style-type: none"> ▪ Single entry – 30 days maximum validity for a fee of \$52 ▪ Single entry – 90 days maximum validity for a fee of \$72 <p>As of October 2022, to restrict migration, Ethiopian authorities have stopped issuing visas on arrival to non-resident foreign people until further notice. It is recommended that visitors apply for an e-visa or a consular visa at the Ethiopian consulate that is closest to them.²¹²</p>
Cybersecurity and data privacy regulations²¹³	<p>A new Data Protection Proclamation was drafted in 2020. It is in its final stages of approval.</p> <p>Key laws include:</p> <ul style="list-style-type: none"> ▪ Freedom of the Mass Media and Access to Information Proclamation No. 590/2008 ▪ The Communications Service Proclamation No.1148/2019 ▪ Computer Crime Proclamation No. 958/2016 ▪ Electronic Signature Proclamation No.1072/2018 ▪ Electronic Transaction Proclamation No.1205/2020 ▪ Licensing and Authorization of Payment Instrument Issuers Directive No. ONPS/01/2020 ▪ Financial Consumer Protection Directive No. FCP/01/2020

Source: Avasant Research

Trade associations offer a helping hand to tech firms

Table 34 Three key associations work in the tech sector

Service provider	Industries served
Ethiopian Communication Authority	Tel: +251 11 692 8043 Fax: +251 11 692 8045 Website: https://eca.et/
ICT Association Ethiopia	E-mail: info@ictet.org Website: https://ictet.org/
Ethiopian Investment Commission	E-mail: info@eic.gov.et Website: https://www.investethiopia.gov.et/

Source: Avasant Research

Growing market segments

High growth in financial services, healthcare and real estate

IT/BPM providers in Ethiopia serve a range of sectors, including healthcare, banking, insurance, media and broadcasting, telecommunications, energy and utilities, manufacturing, tourism and hospitality. Before deciding to operate or establish in a country, however, providers must identify industry verticals with high growth potential. This will

ensure that there is demand for their services and safeguard the sustainability and scalability of operations.

After examining the size of Ethiopian economic sectors, as well as growth trends, three important market segments were identified.

Table 35 Three fast-growing sectors show outsourcing potential

Financial services	
Projected digital Payment size in 2022 – \$1.274 billion ²¹⁴	<ul style="list-style-type: none"> Bank-led financial services predominate in Ethiopia's financial services industry. There are 19 banks in the country. The Commercial Bank of Ethiopia controls 59% of total banking assets in the country and 60% of all deposits. The second-largest lender is the Development Bank of Ethiopia.²¹⁵ Ethiopia's financial system has formal, semiformal and informal institutions. Financial institutions, including banks, insurance firms and microfinance organizations, make the formal financial system a regulated industry. The saving and credit cooperative is considered a semiformal financial institution, not subject to National Bank of Ethiopia regulation and supervision.²¹⁶ Start-ups from Ethiopia and abroad were prohibited from providing digital financial services such as mobile money until 2020. In May 2022, however, state-owned telecom provider Ethio Telecom introduced the nation's first telecom mobile money service, Telebirr. African fintech companies such as Paga in Nigeria are drawn to the Ethiopian market. In 2020, Paga purchased Ethiopian software development firm Apposit as part of its plans to introduce its payment services in Ethiopia. There is a tremendous opportunity for vendors in the fintech space to offer mobile money services, including digital payments, driven by technology development in the financial domain.²¹⁷
Projected revenue growth in the Digital Investment segment – 18.6% ²¹⁸	
Projected growth in the number of users in the digital payments segment – 53 million ²¹⁹	

Healthcare	
Size of the digital health industry in 2022: ~ \$117 million ²²⁰	<ul style="list-style-type: none"> The World Bank categorizes Ethiopia as a low-income country as of 2020. Most people in the nation are below the international poverty threshold and in 2021, more than 18% of Ethiopians required humanitarian aid. This is due to the pandemic and other recent calamities such as the drought and domestic strife.²²¹
Projected annual growth rate (CAGR 2022–2027): ~ 26% ²²³ Largest segment—digital fitness and well-being – total revenue value of \$75.91 million in 2022 ²²⁴	<ul style="list-style-type: none"> Ethiopia’s birth life expectancy is 66.2 years, much lower than the 72.6-year global average. This is partly because of the ‘serious underfunding of the health sector’, which has led to a lack of adequate medical facilities, ineffective distribution of medical supplies and serious difficulties in providing vital health services to people who live in pastoral areas.²²² Increased access to digital health services in Ethiopia will lessen gaps between rural and urban locations.
E-commerce	
Projected penetration of industry by 2025 ~ 30%–35% ²²⁵	E-commerce is still in its infancy due to a lack of IT infrastructure and, more importantly, a legal framework. The Government is drafting a national law to control e-commerce that, when adopted and implemented, is expected to affect the internet market positively. Additionally, Ethiopian banks do not issue credit cards and local financial institutions have only recently begun to use mobile and card banking services for basic internet transactions. ²²⁶

Source: Avasant Research

Market access opportunities

Financial services, healthcare and e-commerce sectors have huge potential

Table 36 Three sectors offer different opportunities

Industry	Service area	Description
Financial services	Digital finance	<ul style="list-style-type: none"> Ethiopian banks have been using card and mobile banking services for most of their online transactions. These innovations came after introducing centralized, real-time, online banking services that have attracted more users. The mechanism to deliver digital financial services is still developing. Foreign companies are working with the Government on financial inclusion projects as technological service providers.²²⁷ IT and business process outsourcing service providers can potentially target opportunities in the following banking and financial services: <ul style="list-style-type: none"> Banking contact centre services: <ul style="list-style-type: none"> Personalized customer care Grievance redressal Banking business process services: <ul style="list-style-type: none"> General accounting, accounts receivable and accounts payable, invoice processing and help desk

Healthcare	Digital health solutions	<ul style="list-style-type: none"> ■ USAID collaborated with the Ethiopian Ministry of Health in December 2019, right before the pandemic began, and invested \$63 million in Ethiopia's health system. The Digital Health Activity project was introduced in Addis Ababa. More than 3,000 healthcare facilities received supervised help from the project, its inaugural annual report says. ■ The project provided open-source software training to 1,100 healthcare practitioners to better gather and handle health data. It also developed an online ordering platform that enables medical facilities to process orders more quickly and give patients their prescriptions on time.²²⁸ ■ Demand and potential scope include: <ul style="list-style-type: none"> – Electronic medical records system solutions – Hospital management information system solutions – Health information system solutions – Telemedicine
E-commerce	Business development	<ul style="list-style-type: none"> ■ Once the e-commerce industry starts accelerating after the national law regulating e-commerce is operational, international e-commerce companies have a tremendous opportunity to develop the sector. ■ Jumia, the nation's most popular online marketplace, Qefira.com, Sheger.net, ShebaShopping and Delala are the top websites for online shopping.²²⁹
Telecom	Telecom services	<ul style="list-style-type: none"> ■ The Government has opened Ethiopia's telecom sector to private telecommunication companies. ■ Kenyan telecom company Safaricom now provides mobile services in Ethiopia, making it the first private investor in that sector. The second-largest city, Dire Dawa, is among 11 cities covered by Safaricom's 2G, 3G and 4G services.²³⁰

Source: Avasant Research

Ghana

Ghana's IT/BPO sector is growing. The sector is characterized by skilled labour, good ICT infrastructure, well connected roads and high-speed internet



GHANA

Macroeconomic and country data



Capital: **Accra**

GDP 2021 (Constant 2015 prices): \$66.15 billion

GDP per capita 2021 (Constant 2015 prices): \$2,015

Projected real GDP growth 2021: 5.4%

Inflation rate (July 2022): 31.7% (YoY)

Population (2021): 32 million

- 0–14 years: 37%
- 15–24 years: 19%
- Median age: 21.5 years

Population growth rate: 2.12%

Major business sectors: Agriculture and agroprocessing, food and minerals processing, healthcare

Official unemployment rate: 4.7%

Literacy rate: 79%

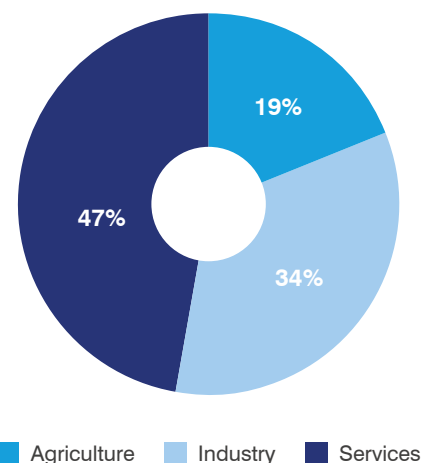
Urbanization: 58%

Major trade and industry associations:

Ghana Association of Chamber & Commerce, Accra District Chamber of Commerce, Association of Ghana Industries

Sources: World Bank (GDP, GDP per capita, unemployment rate), Ministry of Finance Ghana (real GDP growth), Focus Economics (inflation), Statistics Times (population), World Investment Report 2022 (FDI), Ghana Statistical Service (GDP composition), OEC platform (trade statistics), Ministry of Business Development (economic sectors)

GDP composition (2019)



Key facts

Currency: Ghanaian Cedi (GHS)

Exchange rate (per \$): GHS 11.35 (July 2023)

Foreign direct investment inflow: \$2.61 billion

Official language: English

Major religions: Islam, Christianity

Major exports: Gold, crude petroleum, cocoa

Country highlights

Formally known as the Gold Coast, Ghana is the second most populous country in West Africa. The country covers an area of 238,533 km².

In 2020, Ghana exported products worth \$13.1 billion and services worth \$9.38 billion. Top exports include gold (\$6 billion), crude petroleum (\$2.71 billion), cocoa beans (\$1.28 billion), cocoa paste, coconuts, cashews and Brazil nuts (the \$775 million). Switzerland, the United Arab Emirates, China, India and the Netherlands are the top export destinations of Ghana.

COVID-19 halted Ghana's growth of 7% annually over 2017–2019. Commodity exports declined sharply, slowing to 0.5% in 2020. However, growth recovered to 5.4% in 2021, driven by the agriculture and services sectors. Inflation increased from 12.6% in 2021 to 31.7% YoY (an 18-year high) in July 2022.

Government incentives and policies for IT/BPM

The Government aims to establish Ghana as a regional digital services hub. More than 22 government programmes were launched in 1985–2020 supporting digital entrepreneurship. Ghana has a good infrastructure with abundant energy, a road network, good internet and a stable political environment. The Government also supports start-ups by providing training and other support services.

In the Accra region, there are some 200 budding start-ups. Nine different areas and cities have more than 30 support organizations.²³¹ The Government's aim in driving ICT development in the country is to create an inclusive digital economy accessible to all the citizens and benefits sectors such as education, health, agriculture, retail and commerce. The key objectives include:²³²

- Develop local ICT industry to match international standards and deliver services to all of Africa
- Make ICT services accessible in rural areas of the country
- Enhance efficiency, improve public engagement with the Government, foster better transparency of government services and improve revenue from government services using digital means

In its attempt to achieve a digital address system, Ghana developed e-procurement, e-parliament, e-immigration and e-judiciary platforms.²³³

The National ICT policy, launched in 2003,²³⁴ was reviewed in 2011 to include cybersecurity and broadband. The strategies and measures as outlined include development areas such as quality of service, mobile number portability, broadband availability, national digital broadcasting migration, subscriber identity module (SIM) card registration, provision of teleconferencing equipment, construction of the national data centre and regional innovation centres, provision of modern ICT infrastructure, e-services, e-immigration, e-justice, e-parliament, e-government procurement and business process outsourcing.²³⁵

Business development incentives²³⁶

- The income tax rate for all sectors except petroleum, mining and the hotel industry is 25%. The income tax levied on petroleum and mining is 35%, while the hotel industry's income tax liability is 22%.
- Young ICT entrepreneurs have five years of tax holidays.²³⁷
 - After five years, a **15% tax rate** is applied to ICT companies in Accra
 - 12.5% rate for companies in other regional capitals outside of Tema and Accra
 - 10% in regions outside Accra, Tema and other provincial capitals

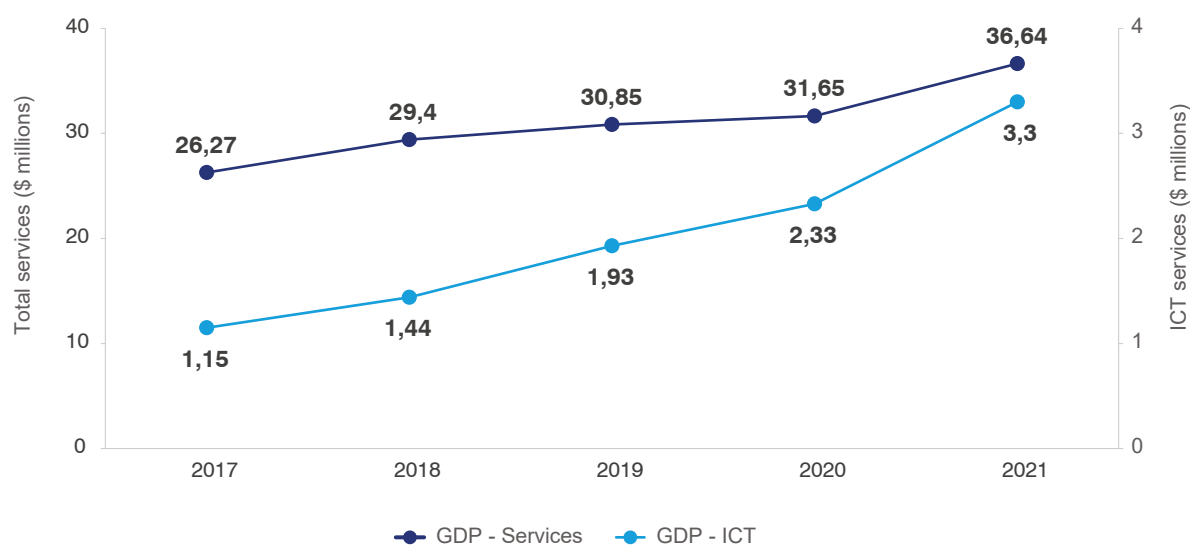


Information and communications technology landscape

Key driver for economic growth

Data from the Ghana Statistical Service show that the ICT sector contributed 6.4% of the total services GDP in 2020. The industry's contribution to total services GDP has been growing since 2017, reaching 9% in 2021 (YoY). The contribution to overall GDP stood at 4% in 2017–2021.

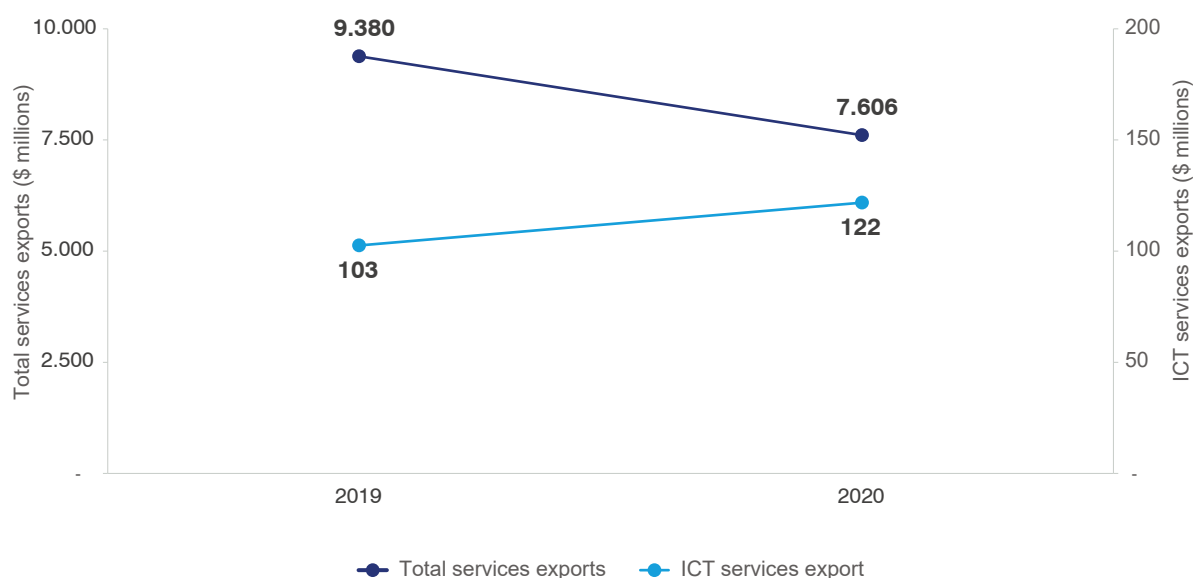
Figure 11 ICT services account for growing share of total services GDP



Source: Ghana Statistical Service - GDP (Product 2009-2016) 2013Q1-2021Q3 Report, December 2021

According to the OEC, Ghana exported \$123 million in ICT services in 2020, accounting for 1.6% of total service exports. ICT service exports grew 19% over 2019–2020.

Figure 12 ICT service exports rose in 2019–2020 as total services exports fell



Source: OEC, Knoema

Ghana ICT sector snapshot

Attractiveness factors



Proximity to British and European markets with frequent flights to important Ghanaian cities and flight times of 6–7 hours



Favourable time zone Local time identical/a one-hour difference with the United Kingdom and most European countries



Native English talent with English as the official language, suitable for serving English-speaking countries



Young workforce with more than 11 million people between 15 and 34 years of age²³⁸



Strong government focus exhibited through policies to promote outsourcing

Main highlights

Workforce: ~ 40,000²³⁹

Entry-level salary (monthly): ~ \$150–\$780²⁴⁰ (salary range based on skill set)

Typical monthly salaries in Ghana:²⁴¹

ICT (technical jobs)

- **Software engineer** – \$433
- **Business process consultant** – \$480
- **Service delivery manager** – \$577

ICT (customer care jobs)

- **Agent** – \$172
- **Client engagement specialist** – \$300
- **Call centre manager** – \$532

Principal IT/BPM service offerings: Contact centre services, managed services, telecommunications

Primary industries served: Government, financial services, healthcare, telecommunications, tourism and hospitality

Primary markets served: [United Kingdom](#), [United States](#) and [European Union](#)

Examples of buyers:



Key IT/BPM associations and agencies:

- Institute of ICT Professionals, Ghana
- National Information Technology Agency
- Information Technology Association of Ghana
- Ghana Export Promotion Authority
- Ghana Investment Promotion Centre

Source: Avasant Research

Key cities and technology centres

Accra is the technology hub in Ghana

Two Ghanaian cities have a population of at least 1 million people, while nine have a population between 100,000 and 1 million.²⁴² The national capital, Accra, is Ghana's most populous city and the epicentre of technology innovation.

The figure below highlights the cities in Ghana most suitable for IT/BPM companies.

Figure 13 Technology centres are concentrated in Accra

Accra - Ghana's capital and most populous city

Population: 1.96 million

Industries: Finance, manufacturing, healthcare, real estate

Source: Avasant Research

Table 37 Key tech hubs in Ghana

City	ICT hubs/tech parks/start-up hubs
Accra	<ul style="list-style-type: none"> ▪ Meltwater Entrepreneurial School of Technology ▪ Impact Hub ▪ iSpace Foundation ▪ Developers in Vogue ▪ CodeTrain ▪ Ghana Tech Lab ▪ Ghana Innovation Hub ▪ Inno Hub ▪ Open Labs ▪ Accra Digital Centre ▪ Kofi Annan Institute of ICT ▪ Kosmos Innovation Centre ▪ Stanbic Bank Incubator
Kumasi	<ul style="list-style-type: none"> ▪ Kumasi Hive ▪ Hapaspace
Takoradi	<ul style="list-style-type: none"> ▪ iCode
Sunyani	<ul style="list-style-type: none"> ▪ Grassroots Hub
Tamale	<ul style="list-style-type: none"> ▪ Hopin Academy
Volta Region	<ul style="list-style-type: none"> ▪ Ho Node
Tamale	<ul style="list-style-type: none"> ▪ Eqwip Hubs

Source: Avasant Research

A 20-hectare ICT park is under construction in Accra. In its first phase, the ICT park will provide modern offices tailored for tech and business services companies in its 7,300 m² space.²⁴³

The state of competition: Understanding the landscape

A broad spectrum of local and international players

The service provider landscape in Ghana encompasses a wide range of players in terms of the size of firms, maturity of operations and technicality of services offered. Ghana hosts providers with local, regional and international operations serving clients across the globe.

The ICT sector was valued at \$1 billion in 2022 and is expected to grow by 500% to reach \$5 billion by 2030.²⁴⁴

Several software, technology equipment and IT service companies are present in Ghana, serving neighbouring markets. Some highlights of the service provider landscape are described below:

- **Key locations:** Providers mainly operate out of Accra.
- **The Government prioritized the sector.** During the pandemic, Ghana announced the Ghana COVID-19 Alleviation and Revitalization of Enterprises Support programme (Ghana CARES) or *Obaatan Pa*. It was a two-phase, 3 1/2-year programme that cost the Government \$9.5 billion.²⁴⁵ The programme focused on emergency COVID-19 relief measures in its first phase. Phase two (in progress and termed revitalize and transform the economy) focuses on technology and strengthening digital-related policies and technologies. The programme outlines the Government's approach to develop the ICT/digital economy in 2022 and 2023.²⁴⁶
- **Technology giants are opening IT innovation centres in Ghana.** In 2019, Google opened its first African artificial intelligence laboratory in Ghana. In 2022, Google opened an additional office to drive artificial intelligence research in Accra. TechGulf, a San Francisco-based technology company, is developing data centres in Ghana. The company is also creating a tech start-up hub. It aims to improve Ghana's digital maturity, aligning itself with the country's digitization agenda.

Service providers are also investing in Ghana's telecom infrastructure. For instance, American Tower Corporation is a major investor in Ghana's telecom infrastructure.²⁴⁷ Africa Data Centres, a member of the Cassava Technologies group and a communications solutions provider operating in 13 countries in eastern, southern and South Africa, planned to build a 30 MW data centre in Accra in 2022. The firm is also building data centres in Kenya, Nigeria, Togo and South Africa. The business announced a \$500 million commitment in 2021 to build 10 data centres across 10 African nations by 2024.²⁴⁸

- Service providers serve mobile operators, carriers, enterprise, media and content companies and retail customers with high-speed, reliable connectivity, hosting and colocation and digital services

Major IT companies that have a presence in Ghana include American Tower Corporation, Cisco, EAI Information Systems, Emergent Payments, Google, IBM, Microsoft, Oracle, Parallel Wireless, Tech Gulf, Twitter and Uber.²⁴⁹

- **Ghana has been working to adopt digital means to develop its infrastructure in partnership with Microsoft.** Microsoft, the Global Alliance of Mayors and Leaders from Africa and African Descent, and the Accra Metropolitan Assembly signed a memorandum of understanding in 2015 to make Accra Africa's first Centre of Excellence, using Microsoft's CityNext applications.²⁵⁰





In 2020, Ghana's National Information Technology Agency collaborated with Microsoft and a local ICT service provider, eSolutions, to digitize government agencies in Ghana. Together, both vendors rolled out Smart Workplace™ built on Microsoft 365. The Government acquired necessary Office 365 licences to cover 5,500 educational servants, 10,000 public servants and 600,000 students. Microsoft Azure drove cloud adoption.²⁵¹






- **SAP Young Professionals Program 2021 in Ghana is strengthening the employability of the young, educated population.** SAP's investment aims to increase the population of certified consultants in the SAP ecosystem to support global customers with digital transformation. The project aims to create 450 jobs in Ghana and other participating countries including Algeria, Angola, Côte d'Ivoire, Egypt, Ethiopia, Ghana, Kenya, Morocco, Nigeria and Tunisia.

The project also seeks to train and certify 600 university graduates in ICT skills in a 3-month training programme that includes modules on cloud, business analytics and big data. The programme also includes soft skill training on presentation, communication and negotiation techniques. After successful completion, graduates are designated as SAP-certified associate consultants and receive job offers from SAP-certified partners or customers.

- Since the project started, 576 people have taken part in the programme, which has a completion rate of 98.48%, with 453 graduates already placed in employment. This project is part of the Strategic Partnership Technology in Africa initiative, linking ICT firms with partners.²⁵²
- International Data Corporation estimates new employment in the ecosystem will rise to 1.6 million employees by 2024, up from 1 million in 2020. Of the 600,000 new employees added to the SAP ecosystem, 280,000 will be new consultant roles, making SAP skills valuable in the job market.

Table 38 IT solution providers in Ghana

Service provider	Location	Examples of services offered	Industries served
SoftTribes Limited 	Accra	System design and development, training, implementation, building and testing custom and enterprise applications, enterprise resource planning systems (key implementor of Microsoft Dynamics NAVISION), human resources modules, payroll systems, billing systems, e-government solutions, point-of-sale systems	Government, manufacturing, financial services, logistics, utilities, services (restaurants and other retail outlets)
Mpedigree Network 	Accra	Technology enablement in the supply chain, customer loyalty, digital marketing and brand protection program, web, and mobile apps, technology-enabled successful execution of government policies	Government, services (restaurants and other retail outlets)
Logiciel 	Accra	Business advisory services in accounting, investment readiness and technology solutions, banking apps core banking software, government-catered solutions, cloud-based systems	Government, financial sector
Dream Oval 	Lashibi	Consulting services in finance, digital transformation, omnichannel retail internet banking solutions, banking enterprise resource planning	Financial services
Oasis Websoft 	Accra	Software development and enterprise consultancy, mobile application development, web development	Healthcare, IT
Termight Engineering Networks	Accra	Managed IT services, configuration and remote support, networking systems	Telecom
Zeepay 	Accra	Mobile money wallets, ATMs, cards, bank accounts and digital tokens, payments, subscriptions, refugee payments and international airtime.	Financial services
Adaptive Computer Solutions 	Accra	Software development outsourcing, people management solutions, voice applications, telecom platform	Telecom, services sector (malls, restaurants), automobile, financial services

ProQuest Consulting & Software 	Accra	Web design and development, social media marketing, web hosting, computer network and security, search engine optimization, business and analysis consulting, e-learning	Manufacturing, chemicals, telecom, services, government sector
Infinixel 	Accra	Web hosting, business-class email services, web and mobile application development, bulk SMS solutions	Services sector (malls, restaurants), automobile, financial services
BlueSpace Technology 	Accra	BPO automation within financial institutions. Services include digital infrastructure, operational business software and value added services and innovation	Financial services
Bsystems 	Accra	Database management and systems consulting, web application development, systems agency services, customer relationship management system and financial management reporting system	Manufacturing, financial services, logistics, utilities, services (restaurants and other retail outlets)
Paix 	Accra	Data centres and colocation, interconnect and connectivity	Telecoms, financial services, digital media and enterprise retail

Source: Avasant Research

Service capacity and capability

Investing in human capital to fuel sector growth

Ghana has improved its score on the World Bank HCI from 0.4 in 2018 to 0.5 in 2020.²⁵³ The index calculates the capital lost by nations due to poor health and education. The HCI scales from 0 to 1, with 1 being the achievement of maximal potential.

The table below looks at the availability and quality of talent in the Ghana IT/BPM sector and outlines its scalability prospects and opportunities.

Table 39 High number of graduates boosts the talent pool

Talent and skill availability	
No. of universities: 92 ²⁵⁴	In 2019, there were 19 public institutions and 73 private universities. About 20% of students were enrolled in 73 private universities and 80% in state universities. ²⁵⁵ With roughly 450,000 graduates entering the job market annually, the IT/BPM industry has a large pool of eligible graduates who can be trained and transformed to become ICT professionals. Ghana has a potentially scalable workforce for business process outsourcing operations. ²⁵⁶ Ghana lags behind other offshoring destinations in tertiary education enrolment. This trend could hamper its ability to expand its offshoring sector.
Annual tertiary graduates: ~ 450,000 ²⁵⁷ (2019)	
Youth unemployment: 9.59% ²⁵⁸ (2021)	
Tertiary, gross enrolment ratio: 19% ²⁵⁹ (2020)	
Secondary gross enrolment ratio: 78% ²⁶⁰ (2020)	

Quality and employability of talent	
Quality of vocational training: Ranks 78th of 141 countries	<p>The quality and availability of technical and vocational training, particularly information technology, have room to improve. Ghana ranked 111th on the World Economic Forum Global Competitiveness Index 2019.</p> <p>However, the country ranked 39th on the ease of finding skilled employees. This is due to the abundance of labour, which means many experienced employees are likely seeking better job opportunities.</p> <p>Regarding adult literacy, Ghana ranks ahead of many countries competing for a share of the offshore services market. Male literacy in 2018 was 84%,²⁶¹ and female literacy was 74%.²⁶² In comparison, the male literacy rate in sub-Saharan Africa is 72% and female literacy is 59%.²⁶³</p> <p>A large share of the Ghanaian population is fluent in English: nearly 10 million people in the country speak English.²⁶⁴ Ghana is well-positioned as a BPO destination in terms of language.</p>
The skill set of graduates: Ranks 53rd of 141 countries	
Labour force with advanced education: ²⁶⁵ 67% (2017)	
Ease of finding skilled employees: Ranks 39th of 141 countries	
Digital skills in active population: Ranks 69th of 141 countries	
Literacy <ul style="list-style-type: none"> ▪ Youth literacy:²⁶⁶ 92% ▪ Adult literacy:²⁶⁷ 79% 	
Scalability	
<p>According to Ghana Statistical Service, 13.4% (1.74 million people) of the total working population (13 million) aged 15 years and above were unemployed in the first quarter of 2022. Adequate training can provide for better employment prospects in IT/BPM operations.²⁶⁸</p> <p>Efforts have been made to strengthen the ICT talent pool in Ghana. These include:</p> <ul style="list-style-type: none"> ▪ Huawei's ICT talent ecosystem programme²⁶⁹ – Huawei is an essential training partner for Ghana. The company has rolled out several ICT certifications. One such programme was rolled out in 2018, when Huawei began its first class with 21 trainees from MTN, Vodafone, IPMC, AirtelTigo and National Identification Authority. Huawei carried out ICT certification programmes providing industry-recognized certification Huawei Certified Network Professional, Huawei Certified Network Associate and Huawei Certified Internetwork Expert across ICT technologies, such as switching, routing, storage, security and cloud computing. ▪ Huawei LEAP programme²⁷⁰ – Huawei's Leadership, Employability, Advancement and Possibilities (LEAP) programme, launched in 2022, aims to train 100,000 people in ICT technologies by 2025. The programme includes digital capacity building, ICT training and certification courses, ICT skill competitions and initiatives such as the women in tech digital literacy drive. ▪ Hacklab Foundation – The Hacklab Foundation is a global NGO with its main office in Ghana that focuses on educating young people about technology and fostering their technological aptitude. The foundation provides hackathons, boot camps, mentorship and coaching, digital skills training, internships and job placements. ▪ Hacklab, in collaboration with major international companies such as IBM, Kwame Nkrumah University of Science and Technology, Standard Bank, Twitter, University of Johannesburg and Vodafone, hosts Hackathon Africa, the largest annual African hackathon, which brings together more than 1,000 tech professionals. <p>The foundation has directly influenced some 12,700 people, holding more than 20 hackathons with 1,000+ women in tech assisted and upwards of 1,300 adolescents placed in jobs in Ghana and 10 other African countries: Cameroon, Ethiopia, Kenya, Madagascar, Malawi, Mali, Nigeria, South Africa, Uganda and Zambia.²⁷¹</p> <ul style="list-style-type: none"> ▪ Vodafone Foundation – The Vodafone Foundation was founded to promote long-term social interventions in Ghanaian communities. It has started a number of national investment programmes with a social impact. The foundation prioritizes ICT training in underprivileged areas, among other things.²⁷² ▪ MTN App Challenge - This challenge seeks to bring together app developers, animators and tech enthusiasts to create technology products in Ghana. MTN Ghana rolled out the programme in 2013.²⁷³ <p>Digitization and automation of manufacturing, agriculture and services drive demand for digital skills in sub-Saharan Africa. It is estimated that more than 230 million jobs in sub-Saharan Africa will require digital skills by 2030. This means there are tremendous skill training opportunities in Ghana. An estimated \$130 billion of opportunity exists in digital skills across the continent until 2030. An estimated \$4 billion of options exist in Ghana alone.²⁷⁴</p>	

ICT infrastructure

Government targets infrastructure improvements

The private sector in Ghana has worked steadily to improve the ICT infrastructure. In March 2022, MTN announced an investment commitment of \$217 million to improve infrastructure and network systems by 2025. The initiative will help Ghana adopt new-age technology in its network infrastructure. In 2021, MTN implemented a total capital expenditure of \$214,875, supporting infrastructure expansion and modernization of 4G coverage. The company installed 131, 120 and 1,446, 2G, 3G and 4G

sites, respectively. Further, it upgraded 2,121 operational 4G sites.²⁷⁵ In September 2022, MTN committed an additional \$1 billion to improve digital infrastructure in Ghana.²⁷⁶

The Ministry of Communications and Digitalisation, which is responsible for licensing and regulating all telecom businesses, regulates ICT sector. Ghana has several opportunities for potential investors. Commercial opportunities include:²⁷⁷

Table 40 Investment opportunities in Ghana

Opportunity sector	Opportunity size (\$ million)
Digital infrastructure (data centres, fibre-optic cables)	400
Software (sales of software by companies such as IBM, Oracle and SAP)	200
Training and services	150
Fintech, health tech and ed tech	115
Cybersecurity	30
Cloud infrastructure	15

Source: Avasant Research

The table below highlights the current state of the ICT infrastructure in Ghana.

Table 41 Most internet traffic comes from mobile devices

Telecom
<ul style="list-style-type: none"> ▪ Fixed telephone subscriptions (per 100 people)²⁷⁸ – 1 ▪ Mobile cellular subscriptions (per 100 people)²⁷⁹ – 130
<p>Key mobile operators in Ghana include MTN, Vodafone, Glo Ghana and AirtelTigo. MTN Ghana has the most extensive customer base, with more than 17 million subscribers and 57% of the market share, followed by Vodafone (23%). The National Communications Authority estimates that, as of August 2021, mobile voice subscriptions reached a 132% penetration rate with 41.4 million subscriptions.²⁸⁰</p>

Broadband/bandwidth

- Fixed broadband subscriptions (per 100 people)²⁸¹ – **0.25**
- Active mobile broadband subscriptions (per 100 people)²⁸² – **130**
- People using the internet (% of the population)²⁸³ – **58%**
- International internet bandwidth per user (kilobits per second)²⁸⁴ – **3.6**
- % of households with internet access²⁸⁵ – **20%**

Fixed broadband penetration, like fixed telephone subscriptions, is low in Ghana. The penetration rate was 0.24% at the end of 2020, below the regional average (0.6%) and the world average (13.6%). This is because most investment in Ghana is in major urban areas, predominantly around Accra. Mobile broadband has become the most popular way for people to access the internet because the connection is relatively fast and reliable.

In 2022, Ghana ranked 40th of 233 countries on mobile data affordability (based on the worldwide mobile data pricing by Cable.co.uk). The average cost of 1 gigabyte of data is \$0.61 on a 30-day plan.²⁸⁶ The Alliance for Affordable Internet 2021 ranked Ghana ranked 23rd out of 72 countries in the affordability drivers index.²⁸⁷

Entry-level broadband services should be affordable in low- and middle-income countries at less than 2% of monthly GNI per capita by 2025, according to the Broadband Commission for Sustainable Development. In Africa, the fixed broadband and mobile data basket prices were at 19% of GNI per capita in 2020.²⁸⁸ In Ghana, the cost of a data-only mobile broadband package (1.5 GB) was 2.03% of GNI per capita that year.²⁸⁹

Power²⁹⁰

- Electric power consumption (kWh per capita)²⁹¹ – **295**
- **Generation capacity**²⁹²
 - Installed capacity – **5,326 MW**
- **Connections**²⁹³
 - Current access rate – **84%**
 - Urban – **93%**
 - Rural – **73%**

Recent developments

Ghana's limitations in the power sector growth include a costly and unreliable supply of electric power. This poses a significant challenge for the country. Reliable electricity is a prerequisite for BPM firms, many of which operate 24 hours a day to respond to international clients.

System peak demand was projected to be 3,304 MW in 2021, according to Energy Commission of Ghana's Energy Outlook report 2021. For 2020, the system peak demand was 3,090 MW.²⁹⁴ While Ghana has more than 5,300 MW of installed capacity, real-time availability is about 2,400 MW. This results from inadequate fuel supplies, changing hydrological conditions and dilapidated infrastructure.²⁹⁵

Cost of electricity²⁹⁶

	Cost (\$) household, kWh	Cost (\$) business, kWh
Ghana	0.035	0.076
World average	0.132	0.126

Source: Avasant Research

Business registration in Ghana

Ghana has laid out clear procedures and guidelines that companies must follow to register.

Business registration procedure²⁹⁷ (Companies Act 1963, Act 179, Section 5)

- Submit the proposed name of the company to the Registrar General's Department
- Obtain tax identification numbers for each director and shareholder of the company
 1. Complete the registration form and submit it to the following:
 - a. Registrar General's Department
 - b. Domestic Tax Revenue (Income Tax & VAT) Office
 - c. Custom Division Office
- Registration of the company with the Registrar General's Department
 1. Complete and submit the registration forms (regulations, Forms 3 and 4, tax registration form)
 2. Payment of the registration fee and 0.5% of the stated capital of the company
 3. Receive Certificate to Commence Business, Certificate of Incorporation and certified copies of Form 3, Form 4 and the regulations
- Registration with Ghana Revenue Authority. Requirements include:
 1. Certificate of Incorporation
 2. Certificate to Commence Business
 3. Regulations of the company
 4. Detailed curricula vitae of the company directors
- Registration with Social Security & National Insurance Trust
 1. Filling registration form
 2. Obtaining the certification of registration
- Registration with Ghana Investment Promotion Centre
 1. Open an account with a bank in Ghana
 2. Transfer the foreign shareholder's equity into the bank account
 3. Submit the completed registration form
 4. Receive GIPC certificate

Source: Avasant Research

Tech policy priorities

Three primary public agencies administer the Ghana ICT sector.

- **Institute of ICT Professionals, Ghana** – A not-for-profit agency that comprises members from various ICT domains. The institute acts as a bridge between professionals from government departments and agencies, corporate organizations, educational institutions, investors, start-ups and civil society organizations.
- **National Information Technology Agency** – This public service institution aims to develop an enterprise-level IT management system at the government level.
- **Information Technology Association of Ghana** – The association aims to be a forum for IT professionals in Ghana, voicing opinions on various subjects.

ICT regulatory environment

Several policies, labour laws, visa and immigration policies and data privacy and cybersecurity laws govern the ICT industry in Ghana.

Table 42 Business visas

Legal and regulatory policies	<ul style="list-style-type: none"> ▪ Ghana ICT for accelerated development policy ▪ National ICT policy
Labour laws (Labour Act 2003 - Act 651)²⁹⁸	<ul style="list-style-type: none"> ▪ Maximum working hours are set at 8 hours or 40 hours a week. ▪ Workers have a defined rest period of not less than 12 hours between two consecutive working days and a weekly rest period of 48 straight hours every 7 days of regular working hours. ▪ The retirement age is 60 for normal working conditions and 55 for hazardous conditions such as mining <p>Wages</p> <ul style="list-style-type: none"> ▪ In 2020, the National Tripartite Committee increased the daily minimum wage to GHS 11.82 (\$1.04) ▪ The average salary varies between GHS 800 (\$70.50) and GHS 1,000 (\$88), depending on the sector and location ▪ Regarding social security contributions, the employer must contribute 13% of the basic salary to the Social Security and National Insurance Trust. ▪ Employees contribute 5.5% of their salary to the Social Security and National Insurance Trust <p>Key agencies and ministries</p> <ul style="list-style-type: none"> ▪ Ministry of Employment and Labour Relations ▪ Trades Union Congress ▪ Ghana Federation of Labour
Visa and immigration policies²⁹⁹ (National Migration Policy 2016; Immigration Act and the Immigration Regulations)	<p>Two key types of work permit issued</p> <ul style="list-style-type: none"> ▪ Temporary – 6-month validity; cannot be renewed ▪ Long term – 1-year validity; can be renewed <p>Key points</p> <ul style="list-style-type: none"> ▪ Economic Community of West African States citizens are offered preferential treatment, including the right to enter Ghana, live there and establish a business. Stay is limited to 90 days. ▪ The Ghana Investment Promotion Centre invites foreign investment in ICT. Incentives include general free transferability of capital, customs duty exemptions on equipment imported for investment purposes, profits and dividends, double-taxation agreements, insurance against non-commercial risks and automatic immigrant quotas.
Cybersecurity and data privacy regulations	<p>Regulated through the Data Protection Act, 2012 with Article 18(2) of the 1992 Constitution.³⁰⁰ Objectives are:</p> <ul style="list-style-type: none"> ▪ protect the privacy of the individual and personal data ▪ fostering safe conduct for transactions involving the exchange of personal data ▪ provide the process to obtain, hold, use or disclose personal information

Source: Avasant Research

Trade associations offer a helping hand to tech firms

Table 43 Three key associations and two agencies work in the sector

Agency	Contact
Institute of ICT Professionals, Ghana	E-mail: info@iipgh.org Website: https://iipgh.org/
National Information Technology Agency	E-mail: info@nita.gov.gh Website: https://nita.gov.gh/
Information Technology Association of Ghana	E-mail: info@itag.org.gh Website: http://www.itag.org.gh/
Ghana Export Promotion Authority	E-mail: gepa@gepa.gov.gh Website: https://www.gepaghana.org/
Ghana Investment Promotion Centre	E-mail: info@gipc.gov.gh Website: https://gipc.gov.gh/

Source: Avasant Research

Growing market segments

Healthcare and financial services

IT/BPM providers serve a variety of sectors, including government, telecommunications, financial services, utilities, manufacturing, healthcare and education. Ghana's key economic sectors that have maximum business potential for ICT include:

Table 44 Two fast-growing sectors

Healthcare	
Projected digital health revenue (2022): ³⁰¹ ~ \$130 million	<ul style="list-style-type: none"> Ghana spends an average of about 6% of its GDP on healthcare infrastructure.³⁰² The COVID-19 pandemic, however, exposed gaps in Ghana's health sector. The Government realized a need for a connected network of healthcare ecosystems while highlighting the need for more district-level hospitals.
Healthcare segment revenue CAGR: 16% (2021–2025) ³⁰⁵	<ul style="list-style-type: none"> Healthcare segment revenue is expected to reach \$9 million at the end of 2022. It is expected to grow at a CAGR of 16% in 2021–2025.³⁰³
Digital health segment revenue CAGR: 21% (2022–2027) ³⁰⁶	<ul style="list-style-type: none"> The value of the Ghanaian digital health market was estimated at more than \$130 million in 2022. This segment, with an average revenue per user of \$19, has been forecast to reach about \$350 million by 2027, growing at a CAGR of 22%.³⁰⁴
Financial services	
Banking industry profit after tax 2021: \$540 million ³⁰⁷	<ul style="list-style-type: none"> There are 23 banks in Ghana. Ghana's financial services sector is composed mainly of the banking sector, insurance and capital markets. Four major regulatory bodies regulate the industry. They are the National Pensions Regulatory Authority, the Bank of Ghana, the Security and Exchange Commission and the National Insurance Commission.³⁰⁸
Growth rate: 14% ³¹⁰	<ul style="list-style-type: none"> With strong demand for fintech in the Ghanaian market and the Government's Digital Ghana Agenda, the Bank of Ghana has announced a central bank digital currency, or e-Cedi. It is intended to serve as a digital alternative to cash, promoting diverse digital payments, driving the Ghanaian cash-lite plan, creating a society where most transactions are electronic payment transfers rather than cash or checks, and ensuring a robust and secure payment infrastructure. It also aims to make payments possible without a bank account, smartphone or contract. It increases the use of digital services and financial inclusion across Ghana.³⁰⁹

Source: Avasant Research

Market access opportunities

Healthcare and financial services show the most promise

The trends in the growing market segments showcase the sectors likely to drive demand for IT/BPM services in Ghana: healthcare and financial services. The following table identifies these two sectors' market access opportunities and potential service areas.

Table 45 Two sectors offer different opportunities

Industry	Service area	Description
Healthcare	e-Health ³¹¹	<p>In the last 15 years, Ghana has developed six initiatives on e-health policies and strategies:</p> <ul style="list-style-type: none"> ▪ ICT for Accelerated Development Policy ▪ Proposals for Ghana eHealth Strategy ▪ Health Sector's ICT Policy and Strategy ▪ eHealth plan: 2007–2011 ▪ Ghana E-health strategy 2010 ▪ Launch of e-pharmacy in 2022³¹² <p>In the last 15 years, Ghana has developed six initiatives on e-health policies and strategies:</p> <ul style="list-style-type: none"> ▪ ICT for Accelerated Development Policy ▪ Proposals for Ghana eHealth Strategy ▪ Health Sector's ICT Policy and Strategy ▪ eHealth plan: 2007–2011 ▪ Ghana E-health strategy 2010 ▪ Launch of e-pharmacy in 2022 <p>Ghana has focused on streamlining the regulatory framework for health data and information management. Some key achievements include:</p> <ul style="list-style-type: none"> ▪ Building sector capacity for broader e-health solutions application in the healthcare sector ▪ Bridging the equity gap and increasing access to the health sector using ICT ▪ Developing strategies towards paperless records and reporting systems. <p>Some of the key opportunities include:</p> <ul style="list-style-type: none"> ▪ Telemedicine ▪ Electronic medical records ▪ Capacity building ▪ Mobile health solutions (mHealth) ▪ Health management information systems
Financial services	Mobile remittances Finance and accounting outsourcing, finance and accounting shared service centres	<ul style="list-style-type: none"> ▪ A Bank of Ghana circular published in 2021, 'A Summary of Economic and Financial Data', says the number of active mobile money accounts grew to 17.5 million in February 2021 from 14.7 million in 2020. There were 465,000 active mobile money agents in 2021 compared to 235,000 in 2021. The bank also reported that there were 40.9 million registered mobile money accounts and 17.5 million active accounts in 2021. With such growing mobile penetration, the country has enormous potential for growth for fintech.³¹³ ▪ This will also enable providers that may not have a highly technical service capability to tap into the sector for services including: <ul style="list-style-type: none"> – contact centre services – mobile money – invoice processing and help desk – procurement

Kenya

Kenya's information technology and business process management sector is well-developed, with plenty of highly skilled labour. Competition is intense and is further fuelled by the presence of large international outsourcing providers



KENYA

Macroeconomic and country data



Capital: **Nairobi**

GDP 2021 (Constant 2015 prices): \$90.37 billion

GDP per capita 2021 (Constant 2015 prices): \$1,705

Projected real GDP growth 2021: 5.5%

Inflation rate (2021): 6.11% (12-month average)

Population (2021): 55 million

- 0–14 years: 38%
- 15–24 years: 20.5%

Population growth rate (2021): 2.3%

Major business sectors: Agriculture, manufacturing, information and communication technology, transportation, finance

Official unemployment rate (2021): 5.7%

Literacy rate (2021): 81.5%

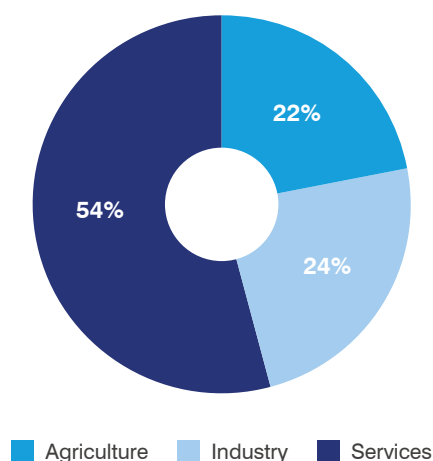
Urbanization (2021): 28.5%

Major trade and industry associations:

- Kenya National Chamber of Commerce & Industry
- Kenya IT and Outsourcing Service

Sources: World Bank (GDP, GDP per capita, population), CIEC (real GDP growth), Central Bank of Kenya (inflation), Kenya National Bureau of Statistics, UNCTAD, Statista, OEC, Index Mundi and Avasant Research

GDP composition (2019)



Key facts

Currency: Kenyan shilling (KES)

Exchange rate (per \$): KES 141.65 (July 2023)

Foreign direct investment inflow (2022): \$448 million

Major language: English (official language)

Major religions: Christianity, Islam

Major exports in \$ million (2020): Tea (\$1,200), refined petroleum (\$308), gold (\$262) and coffee (\$229)

Major export destinations with export value in \$ million (2020): Uganda (\$940), Pakistan (\$515), Netherlands (\$503), United States (\$496) and United Kingdom (\$435)

Country highlights

Kenya is considered the economic, financial and transportation hub of East Africa. It operates a service-oriented economy led by tourism. International arrivals were worth \$1.3 billion in 2021 (65% growth over 2019).

The banking and financial sector is relatively well-developed and serves domestic and regional markets. Almost 84% of the population has access to formal financial services and products. The telecom sector is well developed. Mobile subscriptions reached 65.1 million in 2021 from 49.5 million in 2018. Agriculture, forestry and fishing contribute about 22.4% of GDP. Roughly 54% of Kenya's employed workforce works in the agricultural sector.

Government incentives and policies for IT/BPM

Incentives bolster the technology sector

Developing the technology sector is one of the flagship initiatives of Kenya Vision 2030. The Government aims for the industry to contribute 10% of GDP by 2030 and has created a roadmap to make Kenya a leading IT/BPM destination. Kenya Vision 2030 places a strong emphasis on expanding the country's IT industry. It acknowledges the crucial role that research and development play in speeding economic growth in all of the world's increasingly prospering nations.

To support Kenya Vision 2030, the Government is developing a science, technology and innovation policy framework. More funds will be allocated to scientific research, improving the technical skills of the workforce and the standard of math, science and technology instruction in K–12 classrooms, polytechnics and universities. Increased enrolment in public and private colleges is encouraged, with a focus on programmes in science and technology³¹⁴

The Government has introduced the following initiatives to reach its goals for the sector:

- **Pasha Centres:** These ICT hubs aim to increase internet penetration in rural areas and promote the digital inclusion of all citizens.
- **Konza Technology Park:** Invested 100 million Kenyan shillings (about \$706,040 today) to develop the essential infrastructure for investors to set up technology and IT/BPM businesses.
- **Centre of Excellence:** Established with leading tech companies and the University of Nairobi to train students in IT and business process outsourcing skills and build human resources to meet the sector's demands.
- **Mulot Software Factory in Bomet:** In 2022, the ICT authority announced the launching of a software factory

in Mulot, Bomet County. This establishment was a direct result of adopting the two-theme-based Digital Master Plan 2022–2032, which establishes a need to have two software industries in the country. The factory is expected to create 100,000 Software engineering jobs in Kenya.³¹⁵

Business development incentives

- Export processing zone programme, offering incentives to investors in export businesses.³¹⁶
 - 10-year corporate income tax holiday and a 25% tax rate for a further 10 years thereafter
 - 10-year withholding tax holiday on dividends and other remittances to non-resident parties
 - Perpetual exemption from VAT and customs imports duties on inputs, including building materials, office supplies, petroleum fuel for generators and boilers, and other commodities. Additionally, local purchases of goods and services provided by businesses in Kenya's customs territory or domestic market are exempt from VAT.
 - Stamp duty exemptions
 - Over a 20-year period, new investments in export processing zone machinery and buildings are eligible for a 100% investment deduction.
- Kenya Investment Authority, which targets investment promotion, investor facilitation and aftercare services for investors, plays a crucial support role in facilitating investments
- Subsidizing taxes on computer hardware and software
- Zero value-added tax for export service billing
- Rapid project approval and licensing within 30 days

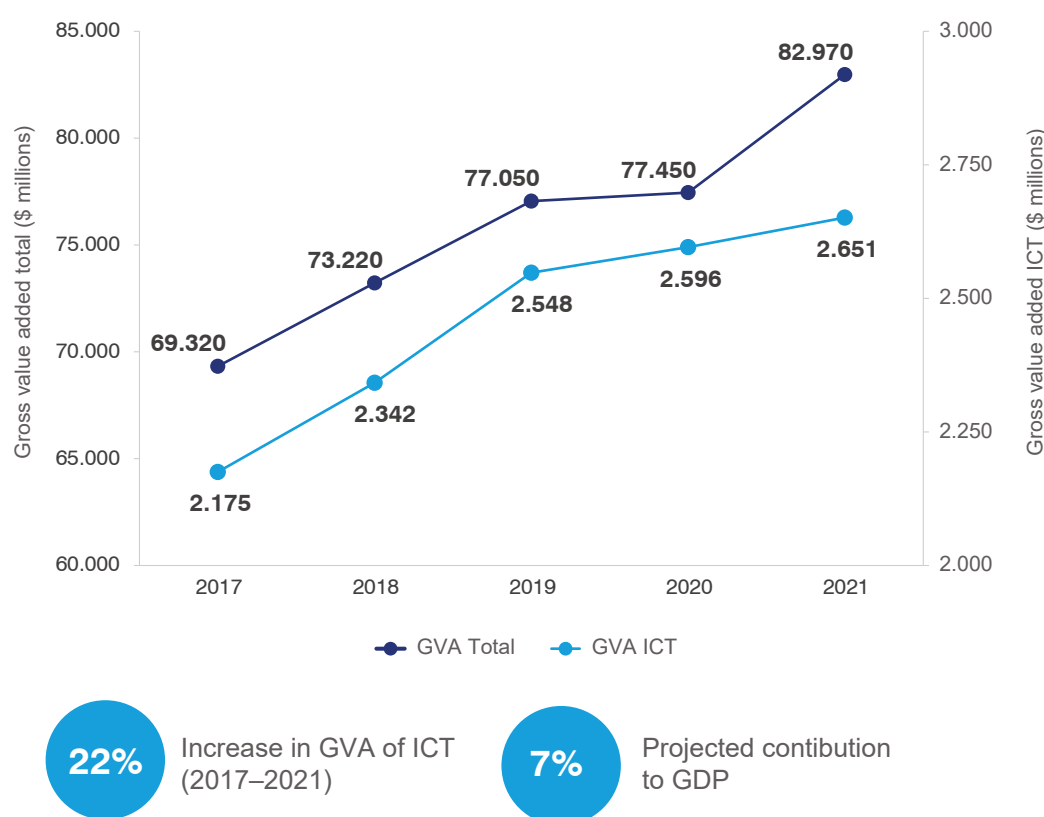
Information and communications technology landscape

The Kenyan tech sector seeks to solidify its regional role

Kenya has emerged as a central ICT hub in East Africa. A robust telecom infrastructure, coupled with the availability of talent, is helping the country progress in the tech sector.

Popularly known as Silicon Savannah, Kenya's ICT sector, valued at \$2.5 billion, accounted for 3.5% of total GDP in 2021. The sector's contribution to Kenyan GDP has averaged 3.28% a year since 2017.³¹⁷

Figure 14 Technology outpaces other Kenyan sectors

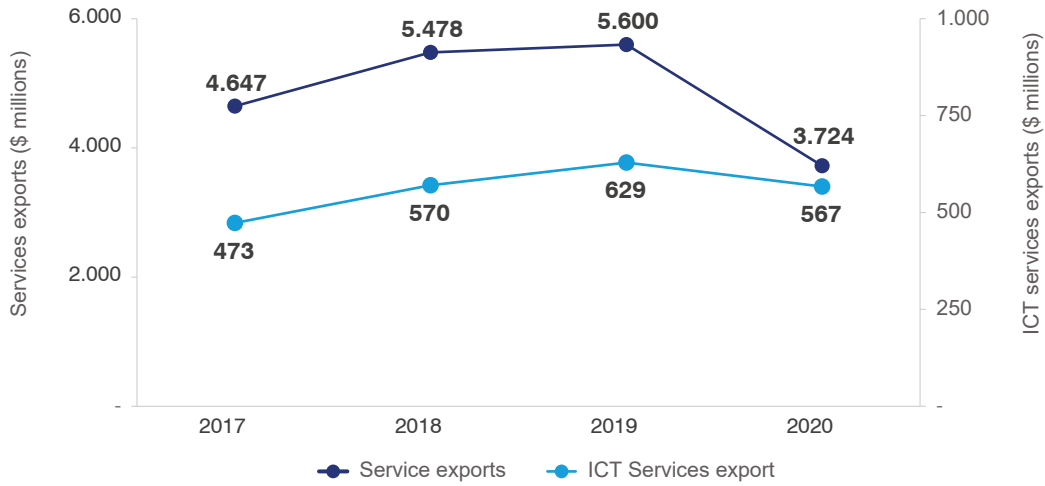


Note: Gross value added, or GVA, refers to the value of services produced in the ICT sector.

Source: World Bank, Kenya National Bureau of Statistics

Kenyan ICT service exports have picked up steadily following a steep decline in 2015 and 2016. In 2017, the country exported about \$473 million in ICT services. In 2020, Kenya exported ICT services worth \$567 million, registering a decline of 10% YoY – a key measure of information technology and business processing management services – accounting for 15.2% of total service exports in 2020.³¹⁸

Figure 15 ICT service exports are recovering



Source: World Bank (Services exports, ICT services exports)

Why is the Kenyan technology sector appealing?

Attractiveness factors

Proximity to British and European markets
 frequent flights to important Kenyan cities and flight times of 8.5–10.5 hours

Favourable time zone
 A difference of 2–3 hours with the United Kingdom and most European countries

Native English talent
 Kenya has a robust English-speaking skill base

Young workforce
 with more than 11 million people between 15 and 24 years of age. The median age of people in Kenya in 2022 was 20 years³¹⁹

Strong government focus
 as part of Kenya’s Vision 2030 development goals

Main highlights
IT market value (2020): ~ \$575 million ³²⁰
Estimated jobs created in 2021: ~ 250,000–300,000 ³²¹
Salary range (monthly): ~ \$300–\$1,360 ³²²
Principal IT/BPM service offerings: Contact centre services, managed services, human resources outsourcing, market research, digital marketing, data centre and infrastructure hosting, cloud services, software development, cybersecurity
Key industries served: Government, energy and utilities, financial services, manufacturing, logistics, healthcare, telecommunications, tourism and hospitality, mining, retail, food processing, real estate, education
Primary markets served: United Kingdom, United States and European Union
Examples of buyers:
Key IT/BPM associations and agencies:
<ul style="list-style-type: none"> Kenya ICT Authority Kenya IT and Outsourcing Services ICT Association of Kenya Kenya ICT Action Network Kenya Investment Authority

Source: Avasant Research



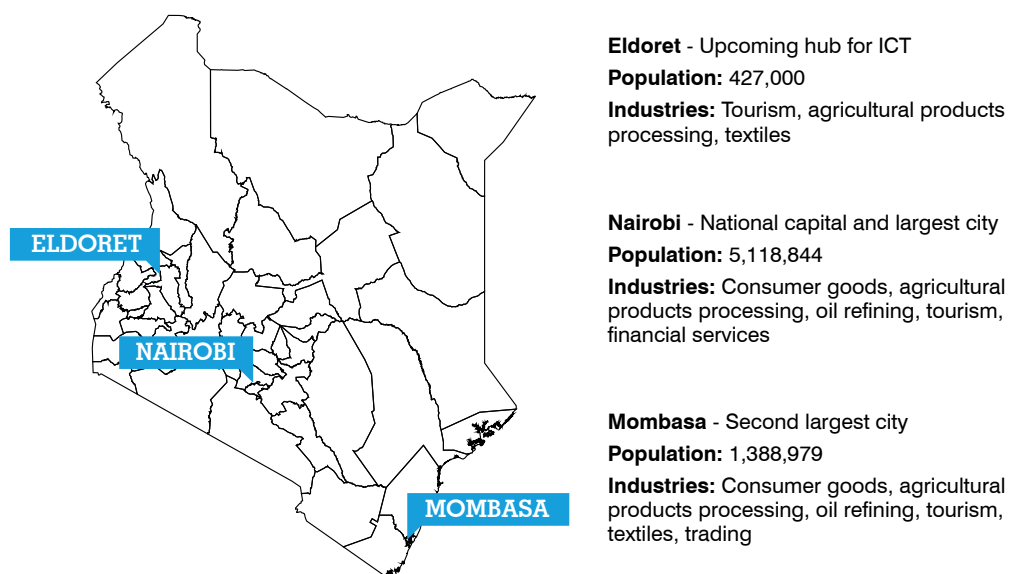
Key cities and technology centres

Most tech firms are in Nairobi, Mombasa and Eldoret

The major Kenyan ICT centres are Nairobi, Mombasa and Eldoret. In 2022, the biggest city was the capital, Nairobi, with 2.7 million people, followed by Mombasa, with about 800,000 residents.³²³

Most innovation hubs, incubation centres and accelerators are in Nairobi, making it an attractive spot for tech specialists and investors. Hubs have sprung up in Mombasa, Machakos, Nyeri, Kisumu and Eldoret, as well as smaller cities and towns, including Voi. Kenya has more than 30 technology hubs.

Figure 16 Most prominent ICT ecosystems in Kenya



Source: Avasant Research

Table 46 Nairobi has the most tech hubs and parks in Kenya

City	ICT hubs/tech parks/start-up hubs
Nairobi	<ul style="list-style-type: none"> ▪ Nairobi Industrial and Technology Park ▪ iHub (launched more than 170 start-ups) ▪ NaiLab ▪ The University of Nairobi Science and Technology Park ▪ C4DLab ▪ iBizAfrica ▪ Villgro ▪ FabLab ▪ mLab East Africa ▪ Cisco EDGE Incubation Centre ▪ GrowthHub ▪ The Hub East Africa ▪ MEST Nairobi ▪ Chandaria Business Innovation and Incubation Centre ▪ Mara Launchpad Incubation Centre
Mombasa	<ul style="list-style-type: none"> ▪ SwahiliBox ▪ SwahiliPot ▪ MakersHub Likoni
Eldoret	<ul style="list-style-type: none"> ▪ Dlab Hub ▪ EldoHub

Source: Avasant Research

The state of competition: Understanding the landscape

Firms of all sizes serve local and international clients

Kenya has advanced considerably in information and communication technology since 2013 when it launched its national long-term development programme, Vision 2030. This programme is a commitment by the Government to transform the country into a middle-income economy and develop the ICT sector into a global player. Effective government policies, infrastructure investment such as four fibre-optic sea cables and a thriving entrepreneurial ecosystem have underpinned steps towards this goal.

Some highlights of the service provider landscape are described below:

- The Government is trying to build an ecosystem that helps the tech sector grow.** In 2016, Kenya updated the 2006 national policies that regulated the industry. The other regulatory policies governing ICT in Kenya are the National Broadband Strategy (2013), the National ICT Master Plan (2014) and the National Cybersecurity Strategy (2014).

In April 2022, the Government launched Digital Masterplan 2022–2032, aligning its ICT growth strategy with global technological expansion. This plan consolidates all government ICT initiatives into a single 10-year plan. It proposes the creation of two software industries, employing more than 100,000 software engineers to develop ICT applications for the global market.³²⁴ The Masterplan is made up of four pillars: Digital Infrastructure; Digital Government Services, Products and Data Management; Digital Skills and Digital Innovation; and Enterprise and Digital Business.

The Government passed the Data Protection Act in November 2020 and then established the Office of the Data Protection Commissioner to address growing concerns about data protection in a thriving digital economy. The data privacy law guides storage, data processors and localization criteria. It also provides guidance to data processors on dispute mechanisms and punishable offences.

Further, to boost local enterprise contribution to ICT growth in Kenya, the Ministry of ICT published a new policy in August 2020 mandating 30% local

shareholding for foreign companies. The new law prioritizes local ICT companies over international bidders for the award of all tenders, including sectors such as defence and security. In addition, foreign companies must transfer skills and personnel to their local partner if local businesses cannot fulfil tender requirements. Foreign companies must meet this new requirement by August 2023.

Kenya's Finance Bill 2020 introduced a new digital services tax on income from digital services at 1.5% of gross transactional value to further strengthen the ICT regulatory environment.³²⁵

- IT firms are thriving.** Kenya established an IT/BPM sector in 2007–2008, with companies such as KenCall, Kentech (now Techno Brain) and Simbitech setting up contact centres and outsourcing businesses. More than 15 IT/BPM firms are based in the country, including global enterprises including Accu and Tech Mahindra and homegrown companies such as Telesky.
- Global technology firms offer their services in Kenya through local partners.** Demand is growing for cloud services, and several multinationals such as IBM, MTN Business and Salesforce operate in Kenya through resellers and local technology partners. Cybersecurity demand is also increasing, and global players such as Kaspersky are selling their services through partners.
- Kenya has good trade relationships with key regional trade associations.** Kenya has built strong bilateral and multilateral trade relationships. It is a member of the AfCFTA, the Common Market for Eastern and Southern Africa and the East African Community. In July 2022, the United States and Kenya announced Strategic Trade and Investment Partnership to promote sustainable and inclusive economic growth, increase investments and support African regional economic integration.³²⁶

The following table describes the primary services offered and industries served by some of the leading service providers in Kenya. International companies are highlighted in blue.

Table 47 Providers offer a range of services

Service provider	Headcount / Location	Examples of services offered	Industries served
Telesky 	51–200 / Nairobi	Call centre services, business process outsourcing, corporate call centre training, campaign services, public service hotlines	Transport, finance, telecommunications, health
Daprom Africa 	250–500 / Nairobi	Data services, customer support services, market research and IT services in the following areas: <ul style="list-style-type: none"> mobile app development and database management web application development search engine optimization 	High-tech, healthcare, government
Horizon Contact Centres 	450–500 / Nairobi	Contact centre services, customer support services	Telecommunications, banking and financial services, retail, utilities, NGOs, travel and tourism, government and public sectors
Ideon 	51–200 / Nairobi	Collections and call centre services, finance solutions, human resources solutions, payroll	Financial services, insurance
Software Group 	200–500 / Nairobi	Mobile payments, internet and mobile banking, agency banking, enterprise integration platform	Financial services, telecommunications, insurance
Adept Technologies 	50+ / Nairobi	Data management, customer support, digital marketing, machine learning	Insurance, NGOs, tech firms
Techno Brain Group 	250+ / Nairobi	IT services, business process outsourcing, software solutions	Government, banking, financial services and insurance, manufacturing, utilities, logistics, mining
Simba Technologies 	50+ / Nairobi	Banking solutions, security operations centre, infrastructure management services	Banking, financial services and insurance, automobile
Dimension Data 	Nairobi, Mombasa, Nyeri, Kisumu, Eldoret	Consulting services, cloud services, managed services, support services, technical services	Financial services, energy and utilities, healthcare, fast-moving consumer goods
iSON Xperiences 	200+ / Nairobi	Inbound customer service, mobile money, inbound dealer help desk, outbound sales, retention and customer health check, back office, social media care, know your customer processes, w.com-mailbox, data cleanup services	Telecommunications, automobile
CCI Global 	1,000+ / Nairobi	Business process outsourcing, digital management, customer contact services, business intelligence	Energy sector, telecommunications, media
IBM 	Nairobi	Design and business strategy, hybrid multi-cloud services, talent and transformation, application services, security services and services for tech support	All industries

Service capacity and capability

Kenya is a regional leader in tech talent

Kenya was rated 0.55 on a scale of 0–1 (1 being the best) on the Human Capital Index 2020 – the third highest in sub-Saharan Africa, the first two being Seychelles and Mauritius. The country has a very young and educated population, with an average age of 20 years and a literacy rate of 81.5%.³²⁷

These factors make Kenya appealing to IT/BPM companies.

The table below looks at the availability and quality of talent in the Kenyan IT/BPM sector and outlines its scalability prospects and opportunities.

Table 48 High number of graduates boosts the talent pool

Talent and skill availability	
No. of universities (2022): 63 ³²⁸	The Kenyan Commission for University Education has accredited 63 universities. The Government owns 22 universities, while the remainder are privately owned. About 50,000 graduates enter the job market every year, meaning a large pool of candidates can draw potential IT/BPM professionals. ³²⁹ Despite its 81.5% adult literacy rate, Kenya lags behind other offshoring destinations in higher education enrolment. Most Kenyans only have primary schooling, and only eight years of schooling are compulsory. This undermines the capability of Kenya to build a strong workforce for its IT/BPM industry.
Annual tertiary graduates: ~ 50,000 ³³⁰	
Youth unemployment: 13.8% ³³¹	
Tertiary, gross enrolment ratio: 10% ³³²	
Secondary gross enrolment ratio: 57% ³³³	
Quality and employability of talent	
Quality of vocational training: Ranks 58th of 141 countries	The World Economic Forum Global Competitiveness Index ³³⁴ rates the quality of the education system as average. The scoring, on a scale of 1 to 7, is based on how well the education system meets the needs of a competitive economy, with 1 representing not well at all and 7 exceptionally well. Kenya scored 4.4. The quality and availability of technical and vocational training, particularly information technology, scored 4.3 on the Global Competitiveness Index, indicating ample scope for improvement. The country gets average marks in the skill set of university graduates, with a rating of 4.1 based on the extent to which graduating students have the skills that businesses need. On the ease of finding skilled workers to fill vacancies, Kenya scored 4.9 and ranked 22nd globally. This high rating can be attributed to college graduates' availability and moderately high unemployment and underemployment levels, which enable skilled employees to seek better job opportunities. Regarding adult literacy, Kenya ranks ahead of many countries competing for a share of the offshore services market, with youth literacy at 88% and adult literacy at 81.5%. A large English-speaking population means Kenya is well-positioned in terms of language.
The skill set of graduates: Ranks 66th of 141 countries	
Labour force with advanced education: 69.1% ³³⁵	
Ease of finding skilled employees: Ranks 22nd of 141 countries	
Digital skills in active population: Ranks 49th of 141 countries	
Literacy ■ Youth literacy: 88% ³³⁶ ■ Adult literacy: 82% ³³⁷	
Language proficiency: High English-speaking capability	

Scalability

The large pool of tertiary graduates and moderately high unemployment rates signal the scope for IT/BPM operations to scale. However, adequate training mechanisms must supplement the skills of these graduates and help them perform effectively within the industry. The Information and Communication Technology Authority has developed several training programmes to bridge the gap between industry needs and the talent pool of university graduates:

- Centre of Excellence, in collaboration with the University of Nairobi, trains 5,000 students every year for the BPM and information technology-enabled services industries.
- Chipuka Software Development Certification, which was developed and rolled out by Carnegie Mellon University
- Huawei Telecom Seeds for the Future, which trains the top 100 engineering students with practical on-the-job skills
- Microsoft ICT Skills Training and Oracle e-Government Capacity-Building Programme
- Presidential Digital Talent Programme to train fresh ICT graduates.
- Under the Citizens Digital skills programme, launched in June 2022, the Government aims to train 20 million Kenyans in digital skills.
- Digital Literacy Programme, introduced in 2016, aims to deliver ICT in teaching, learning and equipping students with modern knowledge skills.

Source: Avasant Research

ICT infrastructure

Improvements are needed to reach the full potential

Kenya has one of the highest mobile and internet penetrations in sub-Saharan Africa, with 103 mobile handsets per 100 people.³³⁸ This is driving the adoption of mobile banking and e-commerce.

The infrastructure to support ICT has improved in recent years and the Government has promoted growth through the regulatory framework. However, infrastructure and the regulatory framework require further improvements to realize the full potential of a digital economy.

Table 49 Unreliable power supply weakens the infrastructure

Telecom³³⁹

- Fixed telephone subscriptions (per 100 people) – **0.013**
- Mobile cellular subscriptions (per 100 people) – **114**

Kenya is one of the leading African mobile telecommunications markets regarding subscriber base and internet penetration. The sector attracted investments of more than \$386 million in 2020.³⁴⁰ The country has one of the highest densities of mobile subscriptions in the world, with more than 80% of its internet traffic coming from mobile devices.³⁴¹

Few people have fixed phone lines because the costs are very high and fixed-line infrastructure requires improvement. This hampers businesses, which need robust landlines and high-speed broadband internet to keep costs low.

Broadband/bandwidth

- Fixed broadband subscriptions (per 100 people) – **1.25**³⁴²
- Active mobile broadband subscriptions (per 100 people) – **26.2**
- People using the internet (% of the population) – **42%**³⁴³
- International internet bandwidth per user (kilobits per second) – **25.2**
- Percentage of households with internet access – **16.9%**

Fixed broadband penetration in Kenya is also low. The household penetration rate of 0.72% at the end of 2019 exceeded the regional average (0.6%), but was well below the world average (13.6%). The Kenyan broadband infrastructure has improved considerably, driven by provider investments in the network and the laying of four underwater fibre-optic cables. But prices remain high, so few people sign up for fixed internet. Most broadband subscribers use mobile internet, which is more affordable.

Kenya ranks 61st of 233 countries on mobile data affordability (based on worldwide mobile data pricing by Cable.co.uk). The average price of 1 gigabyte of data is \$0.84 on a 30-day plan.³⁴⁴ In 2020, Kenya ranked 113th of 220 countries on broadband costs. Kenyan broadband costs an average of \$45.23 a month.³⁴⁵

Entry-level broadband services should be affordable in low- and middle-income countries at less than 2% of monthly GNI per capita by 2025, according to the Broadband Commission for Sustainable Development. In Africa, the fixed broadband and mobile data basket prices were at 19% of GNI per capita in 2020.³⁴⁶ In Kenya, the cost of a data-only mobile broadband package (1.5 GB) was 3.31% of GNI per capita that year.³⁴⁷

Power

- Electric power consumption (kWh per capita) – **170**³⁴⁸
- **Generation capacity**
 - Installed capacity – **2,990 MW**³⁴⁹
- **Connections**³⁵⁰
 - Current access rate – **75%**
 - Rural – **65.7%**
 - Urban – **100%**

Access to electricity has improved considerably, and before the COVID-19 pandemic, the Government had set 2020 as a target for universal access. Along with the challenges created by the crisis, more improvements are needed to reach this goal. An unreliable and erratic electricity supply can hurt the IT/BPM sector, which typically needs electricity 24 hours a day.

Cost of electricity³⁵¹

Source: Avasant Research

Business registrations

Business registration procedure

- Begin the application by choosing a business type.
- Enter the name of your business.
- Pay the 150 Kenyan shilling (\$1.06) fee to file your name search.
- Fill out the company registration form CR1.
- Write out the addresses of company directors on form CR8.
- Indicate the nominal capital holdings of your business(es) on form BN6.
- Pay the stamp duty based on the capital of your company.
- Draft a memorandum and article of association to outline your business goals.
- File the completed forms and pay the fee at a Kenyan registrar's office.
- Download your business certificate from the eCitizen platform.

Source: Avasant Research

Tech policy in Kenya

The Ministry of Information, Communications and Technology formulates policies and laws regulating ICT sector standards and services. The ministry is divided into two departments: (1) broadcasting and telecommunication

and (2) ICT and innovation, which drafts national policies for the information technology and business process outsourcing sector. The regulatory and compliance policies shown in the following table govern the sector.

Table 50 Rules aim to draw foreign investors to the tech sector

Labour laws	<ul style="list-style-type: none"> ▪ The Ministry of Labour has fixed minimum wages for unskilled, semi-skilled and skilled workers for all occupations in Kenya ▪ It has also defined laws governing employment termination, resignation, leave days, maximum working hours and maternity leave
Visa and immigration policies³⁵²	<ul style="list-style-type: none"> ▪ A foreign company that wants a work permit for its employees must have a Kenyan subsidiary/branch/representative office. The branch office will apply for a work permit. ▪ All work permits have a 2-year validity, with renewals allowed for extra 2 years. Renewals can be availed any number of times. ▪ A business visa is available for executives and investors travelling to Kenya for business meetings or discussions (Fee: \$51) ▪ A 90-day extendable visa can be easily obtained from any Kenyan embassy abroad; it is not valid for employment ▪ Work permits are available for temporary business transactions, professional employment, trade and farming <p>Type of visas:</p> <ul style="list-style-type: none"> ▪ Class A - Issued to individuals engaging in minerals or mining sectors. ▪ Class B - Issued to individuals engaging in agriculture and animal husbandry sectors. ▪ Class D - Issued to individuals to whom a specific employer offers specific employment ▪ Class G – Issued to investors in a specific trade, business or consultancy. ▪ Class I - Issued to a member of a missionary society approved by the Government ▪ Class K – Issued to individuals with assured income derived from sources outside and undertakes not to accept paid employment of any kind ▪ Class M – Issued to conventional refugees

Cybersecurity and data privacy regulations³⁵³

These regulations, guided by the Data Protection Act of 2019,³⁵⁴ aim to:

- outline restrictions on how organizations and governments can handle, store and share personal data
- comply with the European Union’s General Data Protection Regulation
- encourage foreign investment in the Kenyan IT/BPM sector

The Data Protection (General) Regulations, 2021, the Data Protection (Registration of Data Controllers and Data Processors) Regulations, 2021 and the Data Protection (Complaints Handling and Enforcement Procedures) Regulations, 2021, aim to:

- outline guidance for data processing
- define role-based access rights for data processing
- define rules for data collection, storage and usage

Source: Avasant Research

Trade associations offer a helping hand to tech firms

Table 51 Five key associations work in the tech sector

Agency	Contact
Communications Authority of Kenya	E-mail: info@ca.go.ke Website: www.ca.go.ke
Konza Technopolis Development Authority	E-mail: konza@konza.go.ke Website: https://konza.go.ke/
Kenya ICT Authority	E-mail: communications@ict.go.ke Website: www.icta.go.ke
Information Communication Technology Association of Kenya	E-mail: info@ictak.or.ke Website: http://www.ictak.or.ke/
The Computer Society of Kenya	E-mail: info@cskonline.org Website: https://www.cskonline.org/

Source: Avasant Research

Growing market segments

The tech sector serves many domestic industries

The IT/BPM sector supplies services to a broad range of domestic industries, including banking, financial and insurance services, telecommunications, automobile, retail, fast-moving consumer goods, tourism, e-commerce, agriculture and government. Before deciding to operate or establish in a country, however, providers must identify industry verticals with high growth potential. This will ensure that there is a demand for their services and safeguard the sustainability and scalability of operations.

The following table highlights three key industries with a high potential to generate demand for IT/BPM services: banking, financial and insurance services, retail and healthcare. The main factors considered were the size and year-on-year growth of each sector – including expected growth, drivers of growth and market trends – and IT and business processing outsourcing trends for the industry.

Table 52 Three fast-growing sectors show outsourcing potential

Banking, financial and insurance services	
GDP of industry 2021 – \$ billion (in constant 2016 prices): ~ \$5 billion ³⁵⁵	<ul style="list-style-type: none"> ■ This sector is one of the major contributors to GDP and one of the country's fastest-growing sectors. ■ Kenya has the third-biggest financial sector in sub-Saharan Africa. ■ Improving access to ICT in the financial services industry is a key goal of Vision 2030. ■ The penetration of mobile money has been enormous. Mobile money transactions rose by 63% in 2021.³⁵⁶ ■ High penetration rate of mobile phones and a surge in adoption of online banking.
Contribution to GDP (2021): 6.4% ³⁵⁷	
Growth rate (2021): 10% ³⁵⁸	
Trade and retail ³⁵⁹	
GDP of industry 2021 – (in constant 2016 prices): ~ \$6.47 billion ³⁶⁰	<ul style="list-style-type: none"> ■ A very young population with a fast urbanization rate will increase the customer base for retail, especially e-commerce. ■ International retail players have invested in Kenya and set up businesses in the country. <p>The proliferation of digital payment systems and penetration of mobile and internet e-commerce is growing rapidly. Online retailers such as Jumia, Kilimall and Rupu have recorded high mobile-based sales.</p>
Contribution to GDP (2021): 8.4% ³⁶¹	
Growth rate (2021): 8% ³⁶²	
Healthcare	
Size of healthcare segment (2022): ~ \$20 million ³⁶³	<ul style="list-style-type: none"> ■ A fast-growing population and a middle class contribute to the steady growth of demand for quality healthcare. ■ The Government has increased spending on healthcare. Kenya's healthcare spending rose from 4.3% of GDP in 2018 to 4.6% of GDP in 2019 (latest available data).³⁶⁴ ■ A comprehensive e-health strategy and the massive success of mobile money solutions and other fintech innovations have fuelled the growth of healthcare services.
National expenditure on health services (2022): ~ \$900 million ³⁶⁵	
Government expenditure on health to total national expenditure (2021): 3.3% ³⁶⁶	

Source: Avasant Research

Market access opportunities

Financial, retail and healthcare sectors show the most promise

The trends in the growing market segments showcase the industries likely to drive demand for IT/BPM services in Kenya: banking, financial services and insurance, retail and healthcare. The following table identifies market access opportunities and potential service areas in these three sectors.

Table 53 Three sectors offer different opportunities

Industry	Service area	Description
Banking, financial services and insurance	<ul style="list-style-type: none"> ■ Digital payments ■ Online banking ■ Peer-to-peer lending ■ Personal finance ■ Insurance ■ Mobile remittances 	<ul style="list-style-type: none"> ■ This sector has traditionally been a major buyer of information technology and outsourcing services. The industry generates a lot of demand for technology solutions such as core banking solutions, contact centre technology and back-end contact centres. ■ The increasing push towards fintech development creates new opportunities for providers that can offer higher-value and digital services – given that they typically provide traditional voice and non-voice services. ■ Domestic and cross-border electronic payments in Africa generated \$24 billion in income in 2020, of which around \$15 billion came from domestic transactions. Some 47 billion unique transactions exceeding \$800 billion in transaction values produced \$15 billion in domestic electronic payments revenue.³⁶⁷
Retail	<ul style="list-style-type: none"> ■ E-commerce solutions 	<ul style="list-style-type: none"> ■ The domestic e-payments market in Africa, according to management consulting firm McKinsey, is likely to expand by about 20% annually and reach \$40 billion by 2025.³⁶⁸ ■ In 2018, the Government signed the Computer Misuse and Cybercrimes Act to prosecute cybercrime. This will support online and mobile-based shopping.³⁶⁹
Healthcare	<ul style="list-style-type: none"> ■ E-health ■ Telehealth 	<ul style="list-style-type: none"> ■ Solutions such as M-Tiba and CarePay have brought together innovative, mobile-based payment solutions and healthcare services. Information technology companies have considerable potential to build such solutions. ■ Private hospitals and medical services are adopting health management information systems to eliminate traditional and inefficient paper-based solutions. ■ Big data and enterprise resource planning solutions have massive potential in the health sector value chain. ■ Telephone-based medical services are being tested in Kenya. They may be able to drive demand by making medical services accessible to a largely rural population.

Source: Avasant Research

Nigeria

Nigeria is the leading economic player in Africa with a highly competitive IT and BPM landscape. The abundance of labour and high unemployment rates enhance its attractiveness as a low-cost destination



NIGERIA

Macroeconomic and country data



Capital: **Abuja**

GDP 2021 (constant 2015 prices in \$): \$518.48 billion

GDP per capita 2021 (constant 2015 prices in \$): \$2,429.60

Real GDP growth rate 2021: 3.38%

Inflation rate (2021): 20.52%

Population (2021): 211.4 million

- 0–14 years: 43%
- 15–24 years: 19%

Population growth rate (2021): 2.7%

Major business sectors: Oil, agriculture, telecommunication, manufacturing, finance

Unemployment rate: 33.3%

Literacy rate: 62%

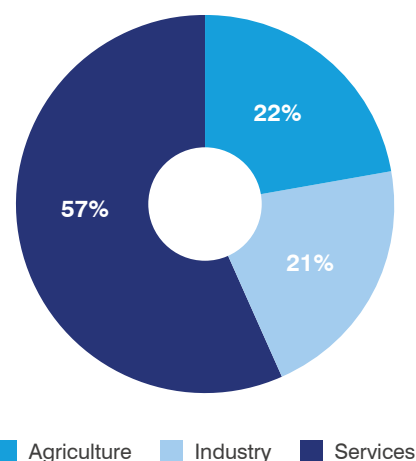
Urbanization: 52%

Major trade and industry associations:

- Nigerian Association of Chamber & Commerce
- Association of Outsourcing Practitioners of Nigeria

Sources: World Bank, National Bureau of Statistics - Nigeria, National Population Commission, World Investment Report 2022, OEC platform, Jobberman Nigeria 2020 (digital economy), Avasant Research

GDP composition (Q1 2022)



Key facts

Currency: Nigerian naira (NGN)

Exchange rate (per \$): NGN 775.78 (July 2023)

Foreign direct investment inflow: \$4.84 billion

Major languages: English (official language)

Major religions: Islam, Christianity

Major exports: Petroleum and agro-based products

Country highlights

Nigeria is the most populous country in Africa and the seventh most populous in the world. It is the largest African economy and has the continent's most significant natural gas reserves.

The country is the No. 15 producer and the No. 7 exporter of petroleum in the world. In 2021, the oil and gas sector accounted for 7.34% of GDP and 86% of total product export revenue, according to the National Bureau of Statistics, Nigeria.

By 2050, Nigeria is expected to be one of the top 20 economies in the world. It is one of the four MINT countries (along with Mexico, Indonesia and Turkey) widely seen as the next 'BRIC-like' economies. Nigeria is also listed among the Next Eleven economies set to become among the biggest in the world.

The digital economy of Nigeria has tremendous growth opportunities. By 2025, the digital economy in Nigeria is projected to generate 1.3 million tech-enabled jobs across various industries.

Government incentives and policies for IT/BPM

*Business development incentives for enterprise*³⁷⁰

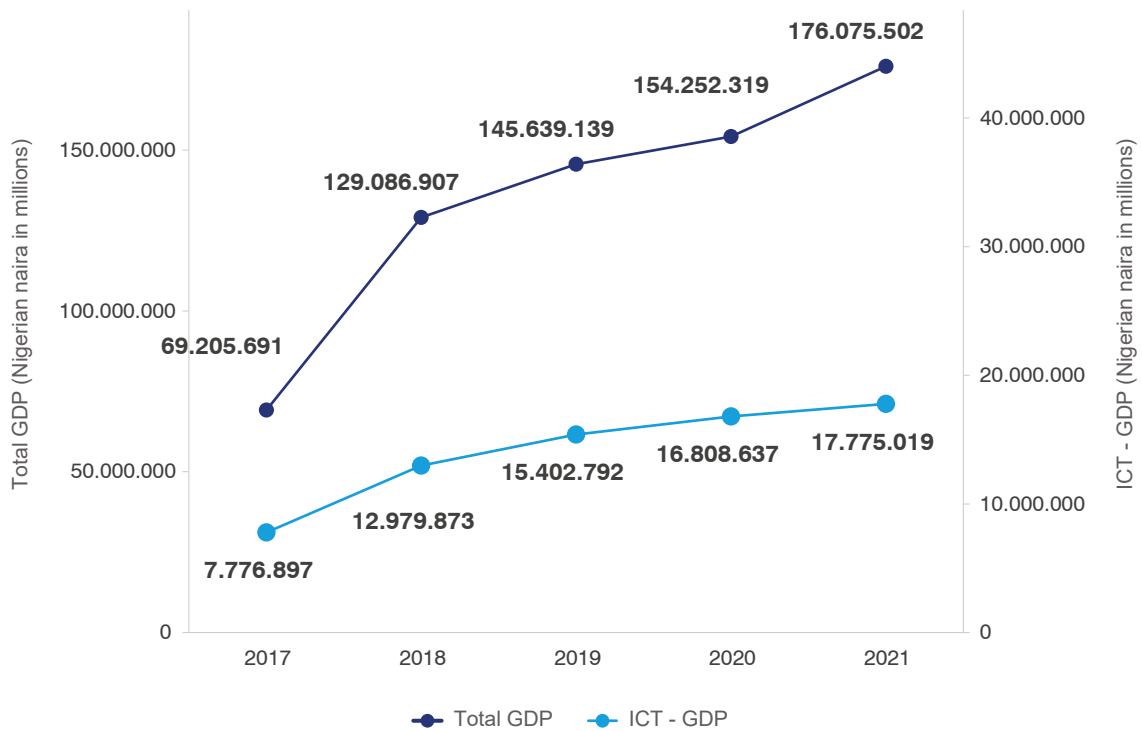
The Government offers several incentives. A few key benefits have been outlined below:

- **Tax holiday** – On request, businesses making specific investments in certain industrial activities may be given a tax vacation of up to three years, which may be extended for an additional period of up to two years upon fulfilment of specific requirements. Manufacturing glass and glassware, fertilizer and steel are a few examples of industries that could receive a tax break.
- **Export incentives** –
 - The Government has classified certain places as free zones where export trade activities can be conducted without being subject to taxes or restrictions on foreign currency. These areas are known as export processing zones and free trade zones.
 - A business that invests in buildings and plant equipment while participating in a permitted manufacturing activity in an export processing zone is eligible for a 100% capital allowance. This can be used for capital expenditure or/and research and development in the assessment year.
 - An export-oriented firm not based in an export processing zone would benefit from a three-year tax holiday provided that the company was not created through the division or reconstruction of an existing business and that at least 75% of its revenue comes from exports.
- Tax-exempt free trade zone enterprises must submit income tax and transfer pricing returns to the Federal Inland Revenue Service to qualify for the tax exemption.
- **Foreign tax credit** – Nigeria does not automatically award tax credits to Nigerian businesses for foreign taxes paid on income from other nations. Dividends, interest and royalties are already excluded from taxation under Nigerian tax regulations. Foreign tax credits are only given per the terms of current double tax treaties and partial credits that apply to Commonwealth nations. In this respect, the double tax treaties typically include full tax credits. Commonwealth members are eligible for tax credits that can equal up to 50% of Nigeria's corporate income tax rate.
- **Tax-free dividends**³⁷¹ – Dividends are not subject to the 10% mandatory withholding tax for qualifying enterprises.
- **Tax losses**³⁷² – Tax losses sustained during the tax holiday may be offset by taxable profits realized following the tax break.

Information and communications technology landscape

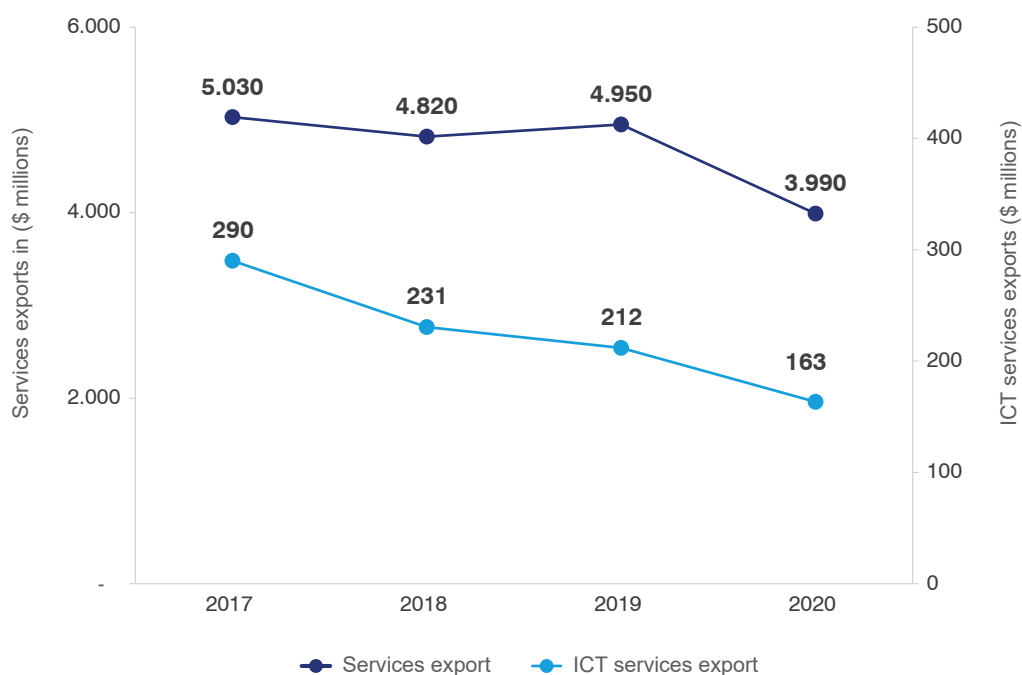
The main driver for economic growth

The National Bureau of Statistics shows that the ICT sector grew more than 128% in 2017–2021. In the second quarter of 2022, the industry was the second-highest contributor to Nigerian GDP at 18.44%, behind agriculture.³⁷³

Figure 17 Tech sector GDP contribution has grown steadily since 2017

Source: Nigeria National Bureau of Statistics

Nigeria exported \$163 million in ICT services in 2020, accounting for 4% of total service exports, according to the World Bank. ICT service exports declined 44% in 2017–2020, primarily due to the low service capability of Nigeria.

Figure 18 Nigerian service exports have fluctuated since 2017

Source: World Bank (Services exports, ICT services exports)

Why is the Nigerian technology sector appealing?

Attractiveness factors



Proximity to British and European markets

with frequent flights to important Nigerian cities and flight times of 4.5–6.5 hours



Favourable time zone

local time identical/a difference of one hour with the United Kingdom and most European countries



Native English talent

with English as the official language, suitable for serving English-speaking countries



Young workforce

with more than 70 million people between 15 and 34 years of age³⁷⁴



Strong government focus

focus exhibited through policies to promote outsourcing

Main highlights

Workforce: ~ 500,000³⁷⁵

Entry-level salary (monthly): ~ \$262–\$1,100³⁷⁶

Principal IT/BPM service offerings: Contact centre services, managed services, human resource outsourcing services, market research, digital marketing, data centre and infrastructure hosting, software development, customer management solutions

Key industries served: Government, energy and utilities, financial services, manufacturing, logistics, healthcare, telecommunications, tourism and hospitality, mining, retail, food processing, real estate, education

Primary markets served: United Kingdom, United States and European Union

Examples of buyers:



Key IT/BPM associations and agencies:

- Association of Outsourcing Practitioners of Nigeria
- Nigeria Association of Information Technology Enabled Outsourcing Companies
- National Information Technology Development Agency
- ACCESS-Nigeria (Assessment of Core Competence for Employability in the Services Sector)
- Nigerian Investment Promotion Commission
- Fintech Association of Nigeria

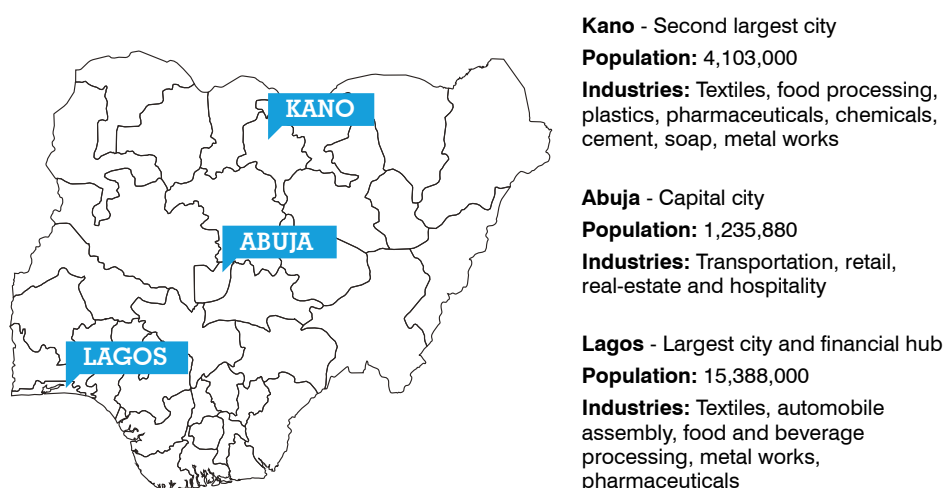
Source: Avasant Research

Key cities and technology centres

Abuja, Lagos and Kano are the leading cities for tech hubs

Eight Nigerian towns have a population of at least 1 million people, 79 cities have a population of 100,000 to 1 million people, and 249 have a population of 10,000 to 100,000 people.³⁷⁷ The national capital, Abuja, located in the centre of the country, is one of the fastest-growing cities in the world.

According to World Population Review, Nigeria's population grows about 35% yearly.³⁷⁸ Lagos, the former capital, is the country's most populous and largest urban region, leading in commercial and industrial activities.

Figure 19 The Tech sector in Nigeria is concentrated in three large cities

Source: Avasant Research

Table 54 Most tech hubs are located in Abuja

City	ICT hubs/tech parks/start-up hubs
Abuja	<ul style="list-style-type: none"> ▪ Abuja Technology Village Free Zone Company ▪ Enspire - Technology Centric Incubation Program ▪ Technology Development for Poverty Alleviation Initiative ▪ StoneBricks Hub ▪ StartPreneurs - full-service tech company for software innovations ▪ Ventures Platform ▪ Civic Innovation Lab
Lagos	<ul style="list-style-type: none"> ▪ Zone Tech Park ▪ MEST Incubator Lagos ▪ Africa Fintech Foundry ▪ Nest Innovation Technology Park ▪ CC Hubs
Kano	<ul style="list-style-type: none"> ▪ Blue Sapphire Hub ▪ Technology Business Incubation Centre

Source: Avasant Research

The state of competition: Understanding the landscape

A broad spectrum of local and international players

The service provider landscape in Nigeria encompasses a wide range of players in terms of the size of firms, maturity of operations and technicality of services offered. Nigeria hosts providers with local, regional and international operations serving all types of clients.

Some highlights of the service provider landscape are described below:

- **Key locations:** Providers mainly operate out of major cities, Abuja and Lagos. They also operate in Enugu, Ibadan and Port Harcourt.
- **Huge government focus on service providers:** Many players were established in the past 15 years amid a move to develop the sector by crafting the National Outsourcing Policy and Framework (2007) and the National ICT Policy (2012) and setting up the Nigeria Association of Information Technology Enabled Outsourcing Companies in 2012.

To further strengthen the ICT industry, the Government launched the National Digital Economy Policy and Strategy (2020–2030) in November 2019. To ensure the effective implementation of the policy, the Nigerian Communications Commission launched the National Broadband Plan for 2020–2025, designed to deliver data download speeds of at least 25 Mb/s in urban areas and 10 Mb/s in rural areas. The plan aims to achieve adequate coverage of at least 90% of the population by 2025.³⁷⁹

- **Competitive offerings by providers:** Some companies that operated before the sector became a government focus have modified their service offerings to meet market demand and become more competitive. For example, Chams Plc, which has been in Nigeria since 1992, shifted its offerings from computer and hardware maintenance to providing technology solutions for identity management and transaction payments to public and private-sector institutions.³⁸⁰
- **Bigger, international firms offer complex services:** Providers range in size from fewer than 50 workers to more than 2,000. Many fall in the 100–500 range. The larger operations are international firms offering more complex services with outsourcing information technology and knowledge process.

These include Wipro, a global IT consulting and outsourcing company with 150,000 employees worldwide. In Africa, Wipro offers digital solutions such as digital security, analytics, big data, artificial intelligence, business application services (Oracle and SAP, Microsoft, IBM, CA Africa), cloud, mobility, the internet of things and cloud information services. The company has sales offices and a delivery centre in Nigeria.³⁸¹

Other international players include BCX Networks. It has fewer employees than Wipro yet offers more sophisticated IT and knowledge process outsourcing services, including digital transformation and cloud consulting.

SMEs focus on business process outsourcing and call centre services: Some companies, like Outsource Global and iNterra Networks, focus on providing more complex and high-value services, such as software development. Nigerian IT firms primarily offer managed services, computing and storage solutions, data centres and infrastructure hosting.

- **Vibrant start-up ecosystem:** Nigeria has a thriving start-up ecosystem. Andela, a firm that links corporations worldwide with African software engineering talent, has grown into a \$1.5 billion unicorn. In 2021, the business raised \$200 million from investors led by SoftBank. Its business model is focused on placing trainees in junior developer roles at multinational corporations after an intense six-month boot camp.³⁸²

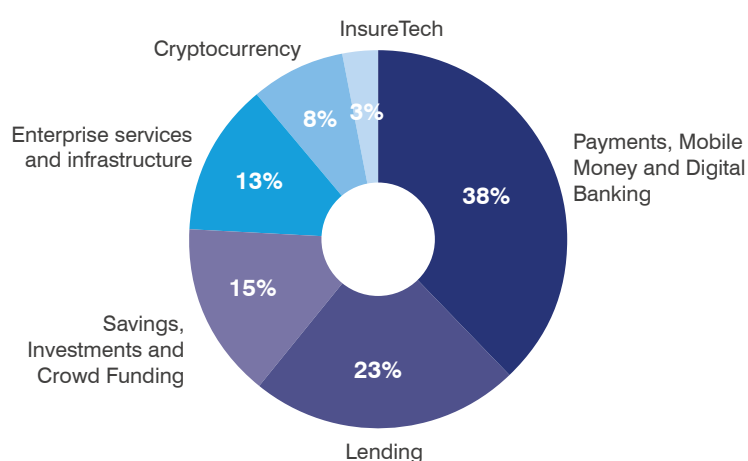
Nigeria's start-up ecosystem is a regional innovator and is ranked 61 globally on the StartupBlink Global Startup Ecosystem Map. Nigeria is also ranked first in Western Africa for start-ups. Nigeria has six cities that are among the top 1,000 worldwide, with Lagos coming in at number 81. Abuja comes in at 473 and Ibadan comes in at 661.³⁸³

- **A fintech powerhouse:** The fintech industry has produced two unicorns in Nigeria, Flutterwave and Interswitch. In addition, there are several high-profile partnerships and acquisitions with venture capital funding, such as OPay, Paystack and Kuda. In 2014–2019, fintech companies in Nigeria raised more than \$600 million in funding. In 2020, the industry raised \$439 million – 20% of the total funding raised by start-ups in all of Africa.

Nigeria has a developing fintech economy compared to global peers such as Australia, India, Singapore, Sweden and the United Kingdom. However, the industry has been growing at an exponential pace since 2019. Nigerian fintech revenues are expected

to exceed \$650 million by 2023, primarily driven by growing smartphone penetration. With the pandemic, the Nigerian economy has an opportunity for fintech investors to contribute to economic growth.³⁸⁴




Figure 20 Percentage of start-ups across key fintech segments in Nigeria, 2020







Source: Nigeria Fintech Census, 2020 - FinTech Association of Nigeria and EY

The following table describes the primary services offered and industries served by some of the leading service providers in Nigeria. International companies are highlighted in blue.

Table 55 Providers offer a range of services

Service provider	Headcount / Location	Examples of services offered	Industries served
BCX Networks Ltd 	100+ / Lagos Abuja Port Harcourt	Digital transformation, cloud consulting, managed infrastructure and cloud services, internet of things/operational technology services, business process as a service, application management, integrated field services, customer-first servicing	Mining and energy, financial services, retail
Chams Plc. 	Lagos	Computer-based e-testing platform, training and lease of space for training, call centre/contact centre service	Government, financial services, education
ConSol 	250+ / Lagos	Contact centre services, technical support and help desk services, data centre and infrastructure hosting, and consulting services in the following areas: <ul style="list-style-type: none"> ■ contact centre/business process outsourcing ■ enterprise solutions ■ data centre and infrastructure sharing ■ human resources ■ training and certification 	Fast-moving consumer goods, IT financial services, government, retail, logistics, healthcare, utilities, real estate, education, telecommunications

Service provider	Headcount / Location	Examples of services offered	Industries served
Dimension Data 	Lagos	Consulting services, cloud services, managed services, support services, technical services	Financial services, energy and utilities, healthcare, fast-moving consumer goods
ICS Outsourcing 	Lagos	Recruitment, people management, facility management, fleet management, background checks, digital marketing, IT outsourcing, corporate learning solutions, payroll outsourcing	Retail, financial services, oil and gas, food processing
iTerra Networks 	100+ / Abuja Enugu Lagos	Contact centre solutions, call centre as a service, software development, business process outsourcing, support and maintenance, network infrastructure, security solutions, business automation solutions, digital marketing, consulting/professional services, capacity development	Financial services, government, education, healthcare, technology, cosmetics, utilities
Invent Alliance Ltd 	< 20 / Lagos	Digital telemarketing, sales lead generation, business awareness service, contract publishing, industry map publishing, digital content media	
iSON Xperiences 	2,500 / Ibadan	Inbound customer service, inbound dealer help desk, outbound sales, back office, showroom staff deployment and management, social media care, data cleanup services	Telecommunications
Galaxy Backbone 	150 / Abuja Kano Enugu Lagos	Operates the national shared services centre, the only uptime institute-certified Tier III data centre in the Nigerian public sector. Data centre services, optical fibre backbone	Government
Knight and Bishop Consultancy 	Lagos	Business support services, human resource management, project management, training	Edutech, agriculture, energy, financial services, fast-moving consumer goods, real estate, entertainment
Outcess 	350 / Lagos Abuja	Contact centre outsourcing, managed services, contact centre as a service, marketing, sales automation	
Outsource Global 	850+ / Abuja	Software development, data training, image tagging, remote sales and back-office outsourcing, human resource management, market research	Fast-moving consumer goods, IT, financial services, government, telecommunications, manufacturing
Outsource Nigeria 	Lagos	Human resources services, recruiting, sales team outsourcing, sales co-sourcing, payroll management, IT support, business intelligence, developers, and operations, including management and field /phone/ automated-based resources	Energy, technology, advertising, travel, retail, manufacturing, healthcare, telecommunications

Service provider	Headcount / Location	Examples of services offered	Industries served
 Resourcery Plc	350 / Lagos Abuja	Business applications, computing and storage solutions, data security solutions, managed services and support, network infrastructure solutions	Financial services, real estate, energy and utilities, manufacturing, government
Rovedana	100+ / Lagos	Payroll and employee management, human resources outsourcing, outsourced bookkeeping, health insurance	
 Telnet	Lagos Abuja Port Harcourt	Enterprise networking, intelligent building systems, managed networks operator and vendor support, business continuity solutions	Financial services, health, oil and gas, education, government
The Outsource Company	200+ / Lagos Abuja	Telemarketing, customer support, e-mail and chat support, multilingual support, lead generation, back-office support, sales qualified leads, business process outsourcing voice and non-voice	Financial services, hospitality, healthcare, real estate, telecommunications
 Weco Systems	150 / Lagos Abuja Port Harcourt	Infrastructure solutions, data centre and network solutions, software and enterprise applications, unified communications, enterprise resource planning and customer relationship management, cloud/managed services, integration and deployment, professional services	Financial services, energy, government, consumer goods, telecommunications
 Wipro	1,200 employees supporting Africa / Lagos	Business advisory services, business process transformation, business transformation services, consulting, continuous business improvement, implementations, project management, professional services, software development, upgrades	Financial services, mining, energy, utilities, telecommunications, retail

Source: Avasant Research

Service capacity and capability

Investing in human capital to fuel sector growth

Nigeria ranked 152 out of 157 in the World Bank 2018 HCI. In the 2020 HCI update, Nigeria scored 0.36 on a scale of 0–1.

The country struggles with high unemployment – as of the fourth quarter of 2020, nearly one-third of the population was out of work and 23% were underemployed. More than 64% of the total youth labour force aged 15 to 34 were either unemployed (12.72 million) or underemployed (6.29 million).³⁸⁵

Unemployment vs under-employment: A person who is actively looking for work but is unable to find it is said to be unemployed. Underemployment is the term used to describe employed people who work in low-skilled and low-paying jobs. The full potential of an employee is not used in these positions.

The experiences of mature IT/BPM destinations such as India and the Philippines suggest that the IT/BPM industry will drive economic growth in Nigeria and alleviate the

unemployment challenges faced by youth. The sector will also help the country diversify from its oil and gas dependence.

The table below looks at the availability and quality of talent in the Nigerian IT/BPM sector and outlines its scalability prospects and opportunities.

Table 56 High number of graduates boosts the talent pool

Talent and skill availability	
No. of universities: 217 ³⁸⁶	<p>Nigeria has 217 universities and 17 distance learning centres registered by the National University Commission. The Government controls most of them, and 111 are privately owned. Private universities witnessed maximum growth: 32 new private universities were established in 2021 and 2022, while eight government-owned universities were established in Nigeria in 2021.</p> <p>With roughly 500,000 graduates entering the job market annually, potential IT/BPM professionals can be drawn from the large graduate pool.</p> <p>Nigeria lags behind other offshoring destinations in tertiary education enrolment. This trend could hamper its ability to expand its offshoring sector.</p>
Annual tertiary graduates: ~ 500,000 ³⁸⁷	
Youth unemployment: 42.5% ³⁸⁸	
Tertiary, gross enrolment ratio: 10.41% ³⁸⁹	
Secondary gross enrolment ratio: 43.51% ³⁹⁰	
Quality and employability of talent	
Quality of vocational training: Ranks 139th of 141 countries	<p>The quality and availability of technical and vocational training, particularly information technology, have room to improve. Nigeria ranked 139th on the World Economic Forum Global Competitiveness Index (skill set of graduates).</p> <p>However, the country ranked higher (97th) on the ease of finding skilled employees. This is due to the abundance of labour amid high unemployment and underemployment, which means many skilled employees are likely seeking better job opportunities.</p> <p>Regarding adult literacy, Nigeria ranks ahead of many countries competing for a share of the offshore services market. Male literacy is at 75%, and female literacy is at 60%.</p> <p>Most graduates have decent English language skills for international contact centres. Further, because of its large English-speaking population, Nigeria is well-positioned in terms of language.</p> <p>Government initiatives – Nigerian Youth Employment Action Plan (2021–2024)</p> <p>The Federal Ministry of Youth Development developed the Nigerian Youth Employment Action Plan. The plan, introduced in 2009,³⁹¹ focuses on people aged 18-35 years, taking strategic actions to create employment opportunities for youth, and outlines frameworks for financing, implementation, monitoring and evaluation.</p>
The skill set of graduates: Ranks 139th of 141 countries	
Labour force with advanced education: ³⁹² 74%	
Ease of finding skilled employees: Ranks 97th of 141 countries	
Digital skills in active population: Ranks 122nd of 141 countries	
Literacy <ul style="list-style-type: none"> ■ Youth literacy:³⁹³ 75% ■ Adult literacy:³⁹⁴ 62% 	
Language proficiency: High English-speaking capability	
Scalability	
<p>The large pool of tertiary graduates and high unemployment rates creates prospects for IT/BPM operations to scale. However, adequate training mechanisms are needed to supplement the skills of these graduates.</p> <p>Efforts have been made to strengthen the ICT talent pool in Nigeria. These include:</p> <ul style="list-style-type: none"> ■ ACCESS – Nigeria (Assessment of Core Competence for Employability in the Services Sector) supports building a human capital base for Nigeria, particularly the service sectors and ICT. The programme seeks to boost employability and job creation by focusing on these high-potential sectors. ■ BPO Academy Nigeria – This BPO training and consulting firm is the only touchpoint in Nigeria for attaining the Outsourcing Standards and Certifications Institute (BPO) certifications. ■ Partnerships with local companies – The Government is actively fostering partnerships between local ICT firms and international investors to establish incubator hubs, science technology parks, and youth innovation programs. Notable collaborations include initiatives with accelerators such as the Co-Creation Hub (CC-Hub) and iDEA in Lagos.³⁹⁵ 	

Source: Avasant Research

ICT infrastructure

Government targets infrastructure improvements

Nigeria is one of the biggest ICT markets in Africa, accounting for 82% of the continent's telecom subscribers and 29% of internet usage.³⁹⁶ Like much of the region, however, the country still faces infrastructure availability and stability challenges.

The Government has worked steadily to improve the ICT infrastructure through initiatives such as the National Information and Communication Technology Policy (2012), the National Broadband Policy (2013–2018), the Smart Nigeria Digital Economy Project, the National Digital Economy Policy and Strategy (2020–2030) and the National Broadband Plan for 2020–2025.

Technology contributes more than oil and trade to Nigeria's GDP

The ICT sector contributed 18.44% of Nigeria's GDP in the second quarter of 2022. The oil sector's contribution slipped to 6.33% in that quarter from 7.42% in the second quarter of 2021 and 6.63% in the first quarter of 2022. Trade was the second-highest non-oil industry after ICT, contributing 16.81% to the economy, up from 16.6% in 2021. The non-oil sector contributed 93.67% of GDP in the second quarter of 2022. The primary non-oil industry drivers were telecommunications, commerce, financial institutions, transportation, agriculture and manufacturing (food, beverage and tobacco).³⁹⁷

Table 57 Most internet traffic comes from mobile devices

Telecom											
<ul style="list-style-type: none"> Fixed telephone subscriptions (per 100 people)³⁹⁸ – 0.072 Mobile cellular subscriptions (per 100 people)³⁹⁹ – 99 											
<p>Nigeria is among the leading mobile telecommunications markets in Africa in terms of subscriber base, teledensity and inflow of foreign direct investment, according to the Nigerian Communications Commission. FDI inflow in the telecom industry was about \$417 million in 2021.⁴⁰⁰ The sector contributed 12.61% to GDP in the fourth quarter of 2021.⁴⁰¹</p> <p>The country is also one of the most mobile friendly in the world, with 81.43% of its internet traffic coming from mobile devices.⁴⁰² The second-largest mobile network operator in Nigeria is Glo Mobile, a division of Globacom. It had 1 million subscribers in more than 87 Nigerian towns within its first year of operation and generated more than 120 billion naira in income.⁴⁰³</p>											
<p style="text-align: center;">Market share by technology (August 2022)</p> <table border="1"> <thead> <tr> <th>Technology</th> <th>Market Share (%)</th> </tr> </thead> <tbody> <tr> <td>Mobile (GSM)</td> <td>99.80%</td> </tr> <tr> <td>Mobile (CDMA)</td> <td>0.00%</td> </tr> <tr> <td>Fixed (Wireless/Wired)</td> <td>0.10%</td> </tr> <tr> <td>VoP</td> <td>0.10%</td> </tr> </tbody> </table>		Technology	Market Share (%)	Mobile (GSM)	99.80%	Mobile (CDMA)	0.00%	Fixed (Wireless/Wired)	0.10%	VoP	0.10%
Technology	Market Share (%)										
Mobile (GSM)	99.80%										
Mobile (CDMA)	0.00%										
Fixed (Wireless/Wired)	0.10%										
VoP	0.10%										
<p>Source: Nigeria Communication Commission</p>											
<p>Telecommunication in Nigeria is rapidly growing. Organizations still typically maintain a backup to enable smooth operations. Despite recent growth in fibre installations, mobile systems remain the primary means for carrying retail and enterprise data traffic, as shown by the figure above.</p>											

Broadband/bandwidth

- Fixed broadband subscriptions (per 100 people) – **0.038**
- Active mobile broadband subscriptions (per 100 people) – **21.8**
- People using the internet (% of the population) – **51%**
- International internet bandwidth per user (kilobits per second) – **12.68k**
- Percentage of households with internet access – **24%**

Fixed broadband penetration, like fixed telephone subscriptions, is low in Nigeria. The household penetration rate was 0.04% at the end of 2020, below the regional average (0.6%) and the world average (13.6%). This is because most investment in Nigeria is in major urban areas and intercity routes. Mobile broadband has become the most popular way for people to access the internet because the connection is relatively fast and reliable.

Over the years, the Government has worked to improve connectivity by supporting the deployment of undersea fibre-optic cables and enhancing market conditions. These efforts have resulted in higher speed and lower consumer prices.

Nigeria ranks 48th of 233 countries on mobile data affordability (based on the worldwide mobile data pricing by Cable.co.uk). The average cost of 1 gigabyte of data is \$0.71 on a 30-day plan.⁴⁰⁴ Nigeria was ranked 19th out of 72 countries in the affordability drivers index by the Alliance for Affordable Internet.

Entry-level broadband services should be affordable in low- and middle-income countries at less than 2% of monthly GNI per capita by 2025, according to the Broadband Commission for Sustainable Development. In Africa, the fixed broadband and mobile data basket prices were at 19% of GNI per capita in 2020.⁴⁰⁵ In Nigeria, the cost of a data-only mobile broadband package (1.5 GB) was 1.71% of GNI per capita that year.⁴⁰⁶

Power⁴⁰⁷

- Electric power consumption (kWh per capita) – **145**
- **Generation capacity**
 - Installed capacity: **16,384 (MW)**
- **Connections**
 - Current access rate: **60%**

Source: Avasant Research

Government incentives and policies

Policies are designed to promote outsourcing

The Government developed a draft National Outsourcing strategy in 2020 that is in line with the Nigerian National Outsourcing Policy launched in 2007. It seeks to develop and position the outsourcing industry as a major West African IT-enabled outsourcing hub. The National Information Technology Development Agency intends to accelerate Nigeria's digital economy and transformation, aiming to create more than a million jobs by 2025.⁴⁰⁸

The public sector has worked to develop and promote IT/BPM in Nigeria. Initiatives include:

- Establishing the Nigeria Association of Information Technology Enabled Outsourcing Companies, a

non-profit organization that promotes professionalism and standards in the outsourcing industry.

- Developing a national ICT policy to transform Nigeria into a knowledge-based economy. The policy laid out objectives to upgrade domestic outsourcing, such as financing ICT infrastructure development, promote education and train youth and the ICT workforce, and provide tax and other incentives to private firms that are active in the industry.
- Funding the Abuja Technology Village Project and the Smart States Initiative to enhance the offshoring industry infrastructure.

Business registration procedure

- Reserve a unique company name at the Corporate Affairs Commission.
- Prepare the requisite incorporation documents and pay the stamp duty.
- Notarize the declaration of compliance with the Companies and Allied Manners Act.
- Register at the Corporate Affairs Commission and pay the fees at the commission bank desk.
- Register for income tax and VAT at the Federal Board of Inland Revenue Department of the Ministry of Finance.
- Register for personal income tax (pay-as-you-earn system) at the state tax office.
- Consider the following facts about registration:
 - The cost to register a business name is about 15,000 Nigerian naira (\$20) plus a 5,750 naira legal fee. The process typically takes 14 working days, though technical inefficiencies could delay this by an additional 5–10 working days.
 - Incorporating a business takes 15–20 working days, with a minimum fee of 27,500 naira.
 - It is advisable not to hire a lawyer as it typically does not speed up the process, which is well-defined by the Corporate Affairs Commission and easy to follow.

Source: Avasant Research

Technology policy

Many public institutions and agencies administer the Nigerian ICT sector. The most prominent include:

- Federal Ministry of Communication Technology, which oversees top-level development and policy planning
- Nigerian Communications Commission, the federal telecom regulator

- Nigerian IT Development Agency handles research, policy standardization and the coordination of IT-related development programmes

The Nigeria Association of Information Technology Enabled Outsourcing Companies has drafted bylaws for outsourcing companies. These are described below.

Table 58 Regulatory environment

Legal and regulatory policies	<p>The Nigeria Association of Information Technology Enabled Outsourcing Companies defines outsourcing regulations.⁴⁰⁹</p> <ul style="list-style-type: none"> ■ The constitution and bylaws of the Nigeria Association of Information Technology Enabled Outsourcing Companies ■ Code of ethics for members of the National Association of Information Technology Enabled Outsourcing Companies.
Labour laws	<ul style="list-style-type: none"> ■ The Government raised the minimum monthly wage to 30,000 naira in April 2019. Any employer with at least 50 workers must pay the minimum wage, defined as the total compensation payable to a worker. ■ All employees and trade unions in both the public and private sectors can adjust the total remuneration packages through collective bargaining. The remuneration agreed upon requires the approval of the federal minister of employment, labour and productivity.
Visa and immigration policies	<ul style="list-style-type: none"> ■ Business visas are available for executives and investors going to Nigeria for business meetings or discussions (fee: \$253). ■ Visas can be easily obtained from any Nigerian mission abroad with a validity of 90 days (extendable). They are not valid for employment. ■ Temporary work permits are allowed for specialized skills. ■ A presidential executive order prohibits the Ministry of Interior from giving visas to foreign workers whose skills are readily available in the domestic labour force.⁴¹⁰
Cybersecurity and data privacy regulations	<p>Regulated through the Nigeria Data Protection Regulation 2019.⁴¹¹ Objectives are:</p> <ul style="list-style-type: none"> ■ Safeguarding the rights of natural persons to data privacy; ■ Fostering safe conduct for transactions involving the exchange of personal data; ■ Preventing manipulation of personal data; ■ Ensuring that Nigerian businesses remain competitive in international trade through the safeguards afforded by a just and equitable legal, regulatory framework on data protection that is in tune with best practices.

Source: Avasant Research

Trade associations offer a helping hand to tech firms

Table 59 Seven key associations and agencies work in the sector

Agency	Contact
Association of Outsourcing Practitioners of Nigeria	<p>E-mail: info@aopn-ng.org</p> <p>Website: www.aopn-ng.org/</p>
Nigeria Association of Information Technology Enabled Outsourcing Companies	<p>E-mail: info@naiteoc.ng</p> <p>Website: www.naiteoc.ng/</p>
National Information Technology Development Agency	<p>E-mail: info@nitda.gov.ng</p> <p>Website: www.nitda.gov.ng</p>
ACCESS – Nigeria (Assessment of Core Competence for Employability in the Services Sector)	<p>E-mail: support@anjims.org.ng</p> <p>Website: www.anjims.org/</p>
Business Process Outsourcing Academy of Nigeria	<p>E-mail: info@bpoacademynigeria.com</p> <p>Website: http://bpoacademynigeria.com/</p>
Nigerian Investment Promotion Commission	<p>E-mail: nipc@nipc.gov.ng</p> <p>Website: www.nipc.gov.ng</p>
Small and Medium Enterprise Development Agency	<p>E-mail: info@smedan.gov.ng</p> <p>Website: https://smedan.gov.ng/</p>

Source: Avasant Research

Growing market segments

Healthcare, trade and retail, and financial services

IT/BPM providers serve a variety of sectors, including government, telecommunications, financial services, energy and utilities, manufacturing, healthcare, education, logistics, tourism and hospitality, retail and food processing. Before deciding to operate or establish in a country, however, providers must identify industry verticals with high growth

potential. This will ensure that there is a demand for their services and safeguard the sustainability and scalability of operations.

After examining the size of Nigerian economic sectors, as well as growth trends, three important market segments were identified.

Table 60 Three fast-growing sectors show outsourcing potential

Healthcare	
Projected healthcare segment revenue: ~ \$136 million (2022) ⁴¹²	<ul style="list-style-type: none"> ■ Increasing government prioritization with healthcare expenditure. In 2019, health expenditure per capita was \$71, up from \$67 in 2018.⁴¹³ Current health expenditure in 2019 was 3% of GDP⁴¹⁴ ■ Development of the National Health ICT Strategic Framework 2015–2020. ■ Emergence of health techs that are helping medical institutions store patient information electronically. The objective is for digitization to help hospitals manage their records. This will be vital to facilitating information sharing between hospitals, a necessary step to prevent outbreaks of infectious diseases.
CAGR (2022–2025): 8.40% ⁴¹⁵	
Projected healthcare segment revenue: ~ \$173 million (2025) ⁴¹⁶	
Trade and retail	
Size of the industry: ~ \$108 billion ⁴¹⁷	<ul style="list-style-type: none"> ■ Nigeria's demographics position its retail sector for solid growth. ■ The country frequently features in AT Kearney's Global Retail Development Index, ranking 34th in 2021 and 27th in 2017.⁴¹⁸ ■ As one of the most mobile-friendly countries in the world, growing incomes and expanding consumer power are driving the growth of the retail industry and e-commerce.
Growth rate: 3% ⁴¹⁹	
Financial services	
Value of contribution to GDP (2021): ~ NGN 2.3 trillion ⁴²⁰	<ul style="list-style-type: none"> ■ The fintech ecosystem comprises 200–3,000 fintechs, three stakeholders, four enablers and funding partners that have invested more than \$250 million since 2014.⁴²¹ Nigeria is rapidly becoming a cashless economy driven by the Government's regulatory drive for financial inclusion. The volume of e-payment transactions grew to 366 million in the first quarter of 2020 from 232 million in the first quarter of 2019.⁴²² ■ According to Absa Africa Financial Markets Index 2021, Nigeria is the third most attractive foreign investment destination in Africa.⁴²³ ■ Key drivers of growth: <ul style="list-style-type: none"> – campaign for financial inclusion, with the financial inclusion target set by the Central Bank of Nigeria of 95% by 2024⁴²⁴ – growing smartphone penetration at a rate of 20%⁴²⁵ – surge in e-commerce activity – government intervention establishing innovation hubs – the regulatory impact of the introduction of the payment services initiative
Growth rate: 10% ⁴²⁶	

Source: Avasant Research

Market access opportunities

Healthcare, retail and financial services show the most promise

The trends in the growing market segments showcase the sectors likely to drive demand for IT/BPM services in Nigeria: healthcare, retail and financial services.

Table 61 Three sectors offer different opportunities

Industry	Service area	Description
Healthcare	Digital health solutions	<ul style="list-style-type: none"> ■ Although there is a large, underserved population in Nigeria, the penetration of mobile phones is fuelling growth. The National Health ICT Strategic Framework says using health ICTs to achieve universal health coverage will produce the following benefits: <ul style="list-style-type: none"> ■ Increased uptake of health services through the effective use of mobile messaging and cash transfer incentives to create demand; ■ Improved accessibility to health services through the effective use of telemedicine and other technologies for health worker training and support; ■ Improved coverage of health services through effective use; ■ Optimized HR management information systems, national health management information and logistics management information systems to track the demand and supply of health services and commodities. <p>Some of the key opportunities include:</p> <ul style="list-style-type: none"> ■ Telemedicine ■ Electronic medical records ■ Insurance registration and claims systems ■ Mobile health solutions ■ Medical distribution (More than 5,300 lives have been saved in Nigeria by LifeBank, a medical distribution company that combines data and technology to help healthcare professionals find essential medicinal items. The business received the Global Citizen Business Award in 2020. ⁴²⁷)
Retail	Supply-chain solutions E-commerce solutions Digital and content-related services	<ul style="list-style-type: none"> ■ The growth of retail means supply-chain solutions can also be provided in the areas of: <ul style="list-style-type: none"> – sales and after-sales support – help desks and customer care – complaint resolution – inventory management – order fulfilment and logistics management ■ Leveraging the rising rate of mobilization in Nigeria, digital marketing also provides an opportunity for providers. ■ Management consulting firm McKinsey predicts that African online sales will reach \$75 billion by 2025, with the Nigerian industry expected to be worth \$10 billion by that year.⁴²⁸ ■ A PayPal survey found that 65% of Nigerian internet users already shop online, while another 24% are expected to do so in the future.⁴²⁹ ■ E-commerce regulations protect investors in this area. In 2015, the Government signed the cybercrime bill into law to prohibit and prevent fraud in electronic commerce. It aims to protect e-business transactions, company copyrights, domain names and other electronic signatures in electronic transactions in Nigeria. ■ E-commerce is emerging as an area with strong growth potential.

Financial services	<p>Mobile remittances</p> <p>Finance and accounting outsourcing; finance and accounting shared service centres</p> <p>Insurance</p> <p>Banking solutions</p> <ul style="list-style-type: none"> ■ Digital payments ■ Peer-to-peer lending ■ Personal finance 	<ul style="list-style-type: none"> ■ The financial services sector is a common market for outsourcing in Nigeria. This indicates a more competitive landscape than in other underserved industries (or sectors that spend little on outsourced services). ■ The presence of major international and local financial institutions such as Citibank and Ecobank is ideal for finance and accounting outsourcing and finance and accounting shared service centre offerings. This will also enable providers that may not have a highly technological service capability to tap into the sector for services including: <ul style="list-style-type: none"> – contact centre services – general accounting – accounts receivable/ accounts payable – invoice processing and help desk – procurement ■ Providers typically offer traditional voice and non-voice services. However, the push to develop fintech presents new opportunities for providers that can provide a portfolio of higher-value digital services.
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Source: Avasant Research



Senegal

Senegal is one of the most appealing markets in the African Union due to its young population, low unemployment and low inflation rate



SENEGAL

Macroeconomic and country data



Capital: **Dakar**

GDP 2021 (constant 2015 prices in \$): \$24.25 billion

GDP per capita 2021 (constant 2015 prices in \$): \$1,437

Projected real GDP growth rate (2021): 5%

Inflation rate (2020): 2.5%

Population (2022): 18 million

- 0–14 years: 42%
- 15–24 years: 20%
- Median age: 18.5 years

Population growth rate: 3%

Major business sectors: agriculture, construction, mining, petroleum, manufacturing, gold, zircon

Unemployment rate (2021): 3.7%

Literacy rate (2017): 52%

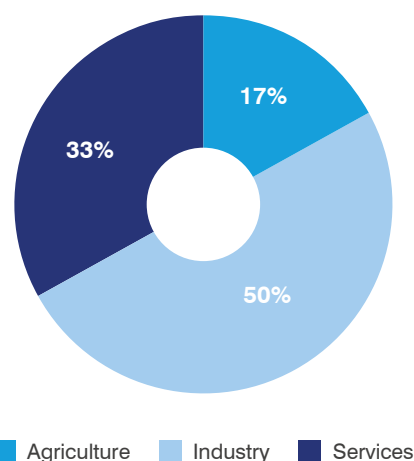
Urbanization (2021): 49%

Major trade and industry associations:

- Chambers of Commerce of Industry and Agriculture
- Organization of ICT Professionals

Sources: World Bank (GDP, GDP per capita, inflation, unemployment, literacy rate, urban population), Global Edge (GDP composition), International Monetary Fund (real GDP growth), Worldometer (population), World Investment 2022 report (FDI), OEC platform (trade statistics)

GDP composition (2020)



Key facts

Currency: West African CFA franc (XOF)

Exchange rate (per \$): XOF 592.50 (July 2023)

Foreign direct investment inflow (2021): \$2.23 billion
FDI inflow in Senegal rose by 21% in 2021 (YoY)

Official language: French

Major religions: Islam, Christianity

Major exports: Gold, refined petroleum, frozen fish, phosphoric acid, ground nuts

Country highlights

Senegal has 104th largest economy in the world in terms of GDP in current U.S. dollars. The country is 160th largest economy in terms of GDP per capita.

Senegal's exports grew to \$4.05 billion in 2020 from \$2.63 billion in 2015. Gold is the top exported product (\$753 million), refined petroleum (\$475 million), non-fillet frozen fish (\$311 million), phosphoric acid (\$273 million) and ground nuts (\$200 million). The top five exporting destinations are Mali, Switzerland, India, China and Australia. These countries received 53% of total exports in 2020.

Since 2010, Senegal's economy has improved significantly, from 83rd in 2010 to 91st in 2020 on Economic Complexity Index rankings.

Government incentives and policies for IT/BPM

The ICT sector in Senegal is primarily driven by the telecommunications sector (key competitors – Orange, Tigo and Expresso). Through the strategic vision Digital Senegal 2025, launched in 2016, the Government aims to make technology accessible to the local population, with a crucial role to play by the private sector. The telecommunications sector witnessed higher adoption of mobile phones and broadband by businesses and households. There are nearly 19,000 direct jobs in the formal sector.⁴³⁰

To support the development of the digital sector, Senegal has introduced incentive-based policies, technical infrastructure and training. These have been formalized in a strategic plan called Digital Senegal 2025, part of the Plan for an Emerging Senegal.

The accelerating spread of technology and stable infrastructure support the growth of Senegal's digital economy. This growth in technology adoption offers job creation opportunities and remote services, such as BPO and e-commerce.

Priority Action Plan for phase II of the Emerging Senegal Plan

The plan calls for reducing the digital divide by using advanced technologies to address the challenges posed by COVID-19. Most of the plan's activities are based on digital technologies, especially for growth and job creation.

*Digital Senegal 2025*⁴³¹

Spearheaded by the Ministry of Posts and Telecommunications, the objective is to drive digital transformation for inclusive growth, creating job opportunities. The vision is to develop a dynamic and innovative ecosystem for the private sector. Key focus is on the following:

- Growing ICT contribution to GDP by 10%
- Creating 35,000 new direct jobs by 2025

There are 28 reforms and 69 projects introduced, with a budget of about \$2.44 billion.

*Investment protection*⁴³²

Senegal belongs to international organizations such as the Settlement of Investment Disputes, the African Intellectual Property Organization and the Multilateral Investment Guarantee Agency. It has bilateral investment treaties with Australia, Denmark, Finland, France, Italy, Japan, the Netherlands, Republic of Korea, Romania, Spain, Switzerland and the United States. Senegal has concluded tax treaties with France, Mali and French-speaking African states of the Organisation Commune Africaine et Malgache (Joint Afro-Malagasy Organization).

As part of its regulatory framework, Senegal has an investment incentive regime that aims to support private and foreign investments and improve the business environment. It assures protection against a stable currency, nationalization, equal treatment between local and foreign entities, and unrestricted repatriation of profits and funds. It allows access to customs, raw materials and tax incentives.

*Emerging Senegal Plan*⁴³³

Several economic reforms have been introduced as part of the 2014 Emerging Senegal Plan. It aims to accelerate growth so the country becomes an emerging economy by 2035 by developing public infrastructure, stimulating fiscal consolidation, bringing structural reforms to attract FDI, driving export diversification and boosting private investment. Four key sectors identified for inclusive growth are energy, agriculture and land, ICT and transport.

General Tax Code⁴³⁴

The country still follows the code published in January 2013. It includes the following:

General Tax Code
<ul style="list-style-type: none"> ■ Corporate tax rates – Senegal’s standard corporate tax rate is 30%, with a 15% rate applying to companies with ‘free exporting enterprise’ status. ■ Withholding taxes – <ul style="list-style-type: none"> – 10% on dividends paid to non-resident companies, adjustable to a lower rate if the firm is under a tax treaty. – Interest paid to a company, or individual, is subject to a 16% rate, adjustable to a lower rate if the firm is under a tax treaty. – Interest on a bank or stockbroker account is 8%, and 20% on interest on cash vouchers. ■ Capital gains tax – Capital gains are included in the corporate income tax base and treated as operating profits. ■ Anti-avoidance – Senegal has integrated regulations in the General Tax Code regarding transfer pricing. Tax authorities can reintegrate to the taxable profits of Senegal resident companies or branches of foreign companies the profits indirectly transferred to non-resident related companies.

Source: Avasant Research

Changes made to General Tax Code in 2022.⁴³⁵

- Increase in the tax rate to 43% on income or salaries exceeding XOF 50 million
- A new derogatory tax regime was introduced for tourism and media corporations. Under the regime, companies will benefit from an exemption on tax and duty withheld from employee salaries. Direct tax classes eligible for the exemption include:
 - Tax on built and non-built properties.
 - Corporate income tax
 - Local economic contribution
- To fight tax fraud, a levy of 12% applies to companies or individuals who default on their regular reporting or payment obligations.
- Free export company status extended till December 2024
- Sanctions:
 - A fine of XOF 5 million to XOF 25 million applies to anyone who produces false documents to navigate tax obligations illegally or creates fraudulent insolvencies by tampering with a company’s balance sheet to evade tax obligations.

- New measures to support micro, small and medium-sized enterprises:
 - Exemption from minimum corporate income tax for three years
 - Exemption from employer tax for three years
 - Abrogation of a minimum fee of XOF 500,000 for minimum corporate income tax
 - Reduced registration fee for new companies with a maximum capital of XOF 100 million. The fee has been reduced from XOF 25,000 to XOF 10,000.

Senegalese Investment Code⁴³⁶

Senegal’s Investment Code guarantees foreign exchange access and capital and earning repatriations. The transactions, however, are subject to procedural requirements of financial regulators. Further, tax incentives include a three-year custom duty exemption for capital goods imports and a VAT exemption on the production and purchase of local products and services. There are no barriers to foreign investors’ 100% ownership of businesses except in sectors where government and state-owned enterprises are active. These include physical infrastructure, electricity distribution, water and port services.

Senegalese Investment Code

- Exemptions from customs duties for three years
- 40% tax credits for eligible investments, deductible within five years
- VAT suspension for three years
- A free export company status for industry, agriculture and telecommunications firms drawing at least 80% of export turnover

The Government of Senegal undertook several reforms to improve its business environment. The critical outcome includes:

- Registration of a company within 24 hours
- Import or export operational in 10 days
- Transfer of ownership within 50 days
- Building permit available online in 40 days
- Return and tax payments online
- Eliminated share capital requirement for the creation of a company
- Established commercial courts
- Dematerialization of all procedures related to the perpetual existence of a company

Source: Avasant Research

Laws governing start-ups: Creation and promotion⁴³⁷

Senegal's Start-Up Act establishes several incentives available to newly incorporated companies to boost the ease-of-doing-business environment.

Start-up Act

In 2020, Senegal passed a start-up act outlining the following incentives:

- Customs are granted according to conditions in the Labour Code and the General Customs Code.
- Tax measures according to conditions to be defined in the General Tax Code.
- The Government approved a three-year tax exemption for its start-ups and new companies.
- Registered start-ups will benefit from special tax advantages provided in the General Tax Code.
- Direct granting of public or private funding
- Facilitating public procurement access to start-ups under conditions defined per Public Procurement Code
- The implementation of facilitation, support and development
- The performance of capacity building measures for start-ups.
- Set up training and empowerment platform reserved only for start-ups registered with the Startup Commission.
- The platform allows a database of trainers, experts and mentors who support start-ups.

Start-ups legally registered with the commission receive government support:

- Registration cost subsidization
- Reservation of .sn domain name
- Securing start-up innovations with national organizations and international intellectual property
- Facilitating access to incubators
- Supporting research and development activities

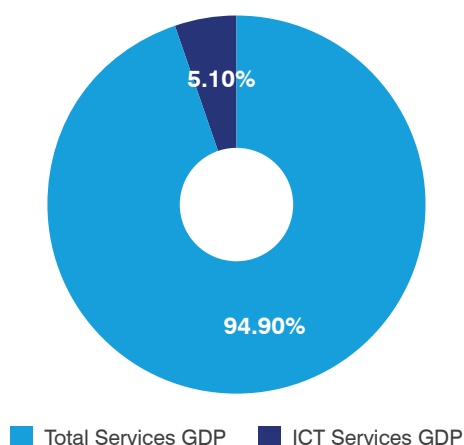
Source: Avasant Research

Information and communications technology landscape

The main driver of economic growth

The ICT sector contributed 5.1% of the total services GDP in 2017, with revenue of XOF 636.3 billion. This revenue grew from XOF 471 billion earned in 2016, registering a YoY growth rate of 35%.⁴³⁸

Figure 21 ICT sector contributes 5.1% to total services GDP (2017)



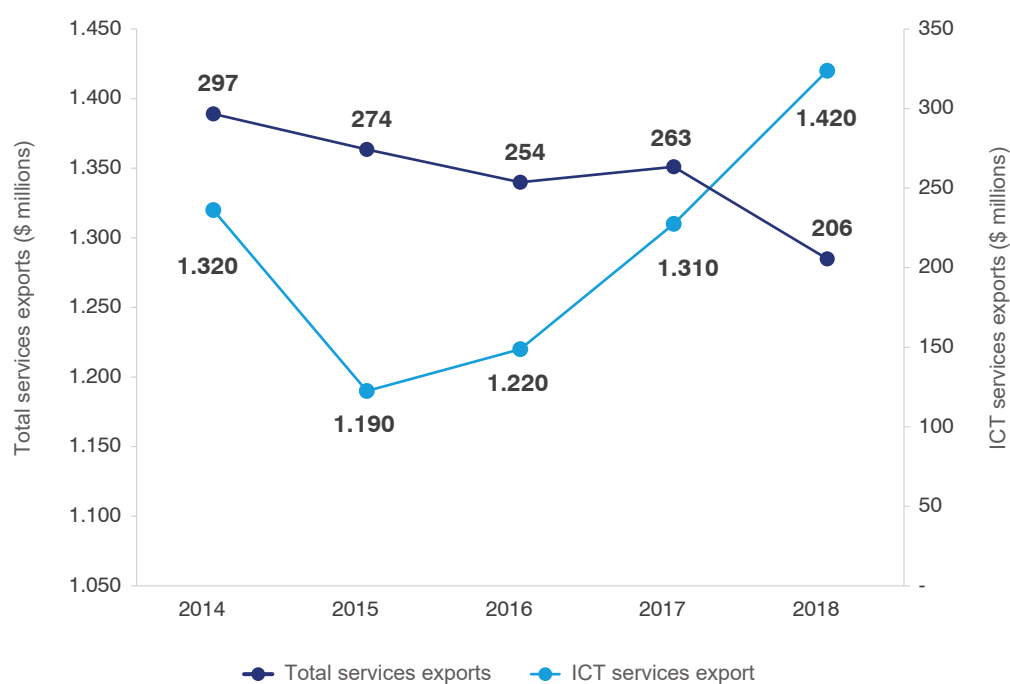
Source: Ecofin Agency, World Bank

According to the OEC, Senegal exported \$206 million in ICT services in 2018, accounting for 15% of total service exports. ICT service exports grew 8% in the 2014–2018.

Through the project ‘Digital economy – dedicated areas ready for use’, Senegal aims to be the leader of digital services outsourcing (offshoring) in French-speaking

sub-Saharan Africa by 2023. To this end, it plans to create two dedicated areas, ready for use and with an attractive regulatory framework. The first is the Diamniadio Digital Technologies Park project, which has been financed by Senegal and the African Development Bank for a total of XOF 46.314 billion.⁴³⁹

Figure 22 Senegalese exports of ICT services have been declining



Source: World Bank (Total services exports, ICT services exports)

Senegal ICT sector snapshot

Attractiveness factors



Proximity to British and European markets

with frequent flights to important Senegal cities and flight times of 7–9 hours



Favourable time zone

local time identical/a difference of 1–2 hours with the United Kingdom and most European countries



Native English talent

with English as the official language, suitable for serving English-speaking countries



Young workforce

with more than 2.7 million people between 15 and 24 years of age⁴⁴⁰



Strong government

focus exhibited through policies to promote outsourcing

Main highlights

Projected job creation by 2025: ~54,000 direct and ~162,000 indirect jobs⁴⁴¹

Average monthly salary (IT roles): ~ \$270 – \$850⁴⁴²

Average monthly salary (BPO roles): ~ \$100 - \$120⁴⁴³

Salary range (monthly): ~ \$300–\$1,360

Principal IT/BPM service offerings: Contact centre services, managed services, telecommunications

Primary industries served: Government, financial services, healthcare, telecommunications, tourism

Primary markets served: United States, United Kingdom and European Union

Examples of buyers:



Key IT/BPM associations and agencies:

- Senegalese Agency for Export Promotion
- Ministry of the Digital Economy and Telecommunications
- Agence de Promotion de l'Investissement et des Grands Travaux
- OPTIC (organization of ICT professionals)
- SENUM (*Société Senegal Numerique*)

Source: Avasant Research

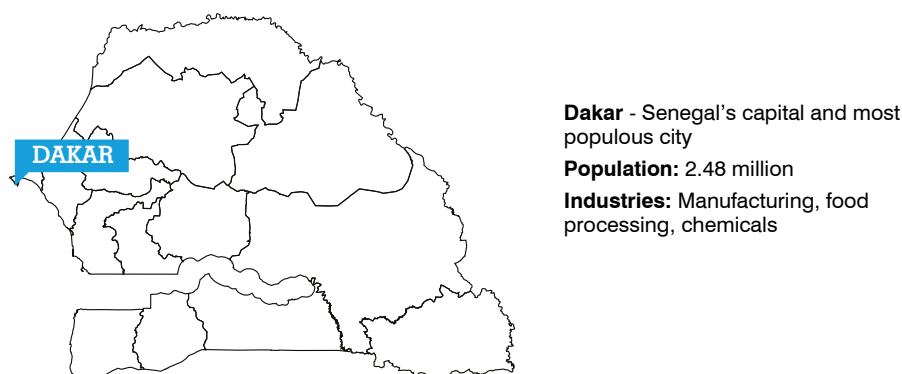
Key cities and technology centres

Dakar is the technology hub in Senegal

The Senegalese capital Dakar is the only city in the country with a population of more than a million people (2.48 million), while eight cities have a population of 100,000 to 1 million.⁴⁴⁴

Dakar has good internet connectivity leveraged by many incubators and investment funds. The Government aims to

create 35,000 new jobs in the ICT sector by 2025.⁴⁴⁵ Under Digital Senegal 2025 strategy, the Government is fostering the growth of the innovation ecosystem, which now has more than 15 incubators, accelerators and coworking spaces. More than 2,500 start-ups and business owners have already received support from this network.⁴⁴⁶

Figure 23 Technology centres in Senegal are concentrated in Dakar

Source: Avasant Research

Table 62 Tech hubs in Senegal

Tech hub	ICT incubator ⁴⁴⁷
CTIC Dakar	CTIC Dakar was opened in March 2011 to assist ICT companies and project leaders in their creation, development and growth stages. It offers businesses and projects the ICT infrastructure and services necessary to ensure sustained growth and sustainability. CTIC Dakar is an example of public-private partnership led by the ICT Incubators Foundation of Senegal. Partners and sponsors include both public and private international organizations.
JOKKOLABS	Jokkolabs Dakar, a collaborative space created in 2010 to welcome entrepreneurs, start-ups and digital players, is present in nine other countries. Through its network and its open innovation programme with Société Générale, Jokkolabs offers a two-month incubation programme for selected entrepreneurs.
IMPACT HUB DAKAR	Impact Hub Dakar offers start-up incubation programmes, workspaces (co-working, private offices, event rooms and seminars) and dynamic networking events.
Yeesal Agri Hub	The first agritech and agribusiness hub in Senegal, Yeesal Agri Hub's mission is to raise awareness and train young people in agriculture, entrepreneurship (with a value chain approach), and innovative and sustainable practices, and to develop the use of ICT in agricultural programmes.
D-Hub	This hub positions itself as a catalyst and ecosystem builder to boost entrepreneurship and multisectoral innovation in an integrated and nationally focused way by: <ul style="list-style-type: none"> ▪ Market access assistance for SMEs and start-ups ▪ Collaboration with universities, professional training centres and research centres ▪ Support to public administrations and large companies in their innovation strategy (open innovation) ▪ Pre-incubation, incubation, pre-acceleration, acceleration and scaling of high-potential start-ups
Orange Corners in Senegal	This is a six-month incubation programme comprising monthly intensive sprints with workshops, master classes and meetups dedicated to project leaders and start-up founders.

Tech hub	ICT incubator ⁴⁴⁷
Multimedia Community Centres	In 2011–2013, 30 multimedia community centres were established by the ICT Ministry, in cooperation with UNESCO, to facilitate community ICT access.
Orange Fab Senegal	This start-up accelerator offers access to the markets of the Orange group and its national and international partners.
Expresso Innovation Hub	Expresso Innovation Hub is a space dedicated to innovative initiatives and entrepreneurship.
Jjiguene Tech Hub Dakar	This is the first women's network in technology in Senegal. It is a community-oriented initiative for women entrepreneurs and coders, focusing on projects to develop ideas and businesses. ⁴⁴⁸
The Mohammed Bin Zayed Center for Innovation and Entrepreneurship	The centre aims to help economic players in their digital transformation while supporting the Senegalese digital ecosystem and start-ups. The centre has three key goals: <ul style="list-style-type: none"> ▪ Global ecosystem: It offers a platform for interaction between the Senegalese diaspora and local business owners and welcomes foreign economic actors who want to access the Senegalese market and the subregion. Additionally, it gives nearby business owners options for worldwide expansion. ▪ Entrepreneurial culture: The goal is to teach the techniques and managerial tools of the digital economy to a new generation of entrepreneurs (agility and customer orientation).

Table 63 Proposed tech hubs in Senegal

City	Proposed ICT hubs/tech parks/start-up hubs ⁴⁴⁹
Diamniadio Technology Park	<p>The Government aims to build a digital city on 25 hectares of land 35 km from Dakar as digital services are the primary driving force for economic growth. The aim is to build a digital platform with ICT office spaces for the public and private sectors.</p> <p>The first phase, which was set to be completed by December 2022, involves designing and building offices, incubators, teaching and research centres, and a Tier III data centre integrated in 33,000 metres of space.</p> <p>The total investment is \$77 million. The African Development Bank provided €61 million and the Senegalese Government provided €9 million.</p>

Source: [idom](#)

The state of competition: Understanding the landscape

Providers serve local, regional and international clients

The service provider landscape in Senegal encompasses a few players in terms of the size of firms, maturity of operations and technicality of services offered. Senegal hosts providers with local, regional and international operations serving local, regional and international clients.

Several software, technology equipment and IT service companies serve neighbouring markets. Some highlights of the ICT landscape are described below:

- **Key locations:** Providers mainly operate out of Dakar.
- **Government has partnered with the private sector to build data centres:** The Ministry of Digital Economy and Telecommunications, the Digital Technology Park of Senegal and the General Delegation for Rapid Entrepreneurship of Women and Youth have partnered with Moroccan data centre provider N+ONE to build three data centres in the Digital Technology Park in Dakar. The project aims to promote Senegal as a base for international technology companies.⁴⁵⁰
- **Government-driven programmes**
 - **Digital Senegal Strategy 2016–2025:**⁴⁵¹ This strategy is linked to the Plan for an Emerging Senegal (Plan Sénégal Emergent). The project aims to develop





the ICT sector by providing new growth opportunities and sources to stakeholders, raising the contribution of ICT to GDP by 10% (from 3.5% today) and creating 35,000 direct jobs by 2025.









The strategy involves 28 reforms and 69 projects, with a budget of about €2.5 billion. It seeks to improve Senegal's ranking on WEF's Network Readiness Index rankings by reaching 70th place worldwide (from 98th place today) and fourth in Africa. It also aims to boost the country's rankings on ITU's ICT Development Index by achieving 90th place worldwide and fourth in Africa.

- Senegal's Ministry of Trade and Small and Medium Enterprises, in association with the International Trade Centre, implemented the West Africa Competitiveness Support Program to strengthen the competitiveness of Senegalese micro, small and medium-sized enterprises in regional and international markets.⁴⁵²

The following table describes the primary services offered and industries served by some of the leading service providers in Senegal. International companies are highlighted in blue.

Table 64 IT solution providers in Senegal

Service provider	Location	Examples of services offered	Industries served
 Baamtu	Dakar	Engineering services, IT services, specialized in data and the implementation of information systems. Odoo, software engineering, storage and processing Big Data, IoT and Machine Learning technologies.	Telecommunications, Banks, Public sector
 NeuroTech	Dakar	IT services : systems and application infrastructures.	Finance, Banking and Insurance, Public Institutions/ Government, Retail, Industries
 Polaris ST	Dakar	Consulting services specialized in information systems security. Auditing, Consulting, Digital Training. Design of Cybersecurity strategy, Compliance management (ISO 27001, PCI DSS, GDPR, etc.)	Public Administration, Finance/ Banking/Insurance/FinTech, Telecommunications, Audit firms
 Inetum	Dakar	Software integration, service engineering, consulting services	Aerospace, automotive, banking, chemicals, life sciences, consumer goods, defence, utilities, healthcare, retail, public sector

Service provider	Location	Examples of services offered	Industries served
VoLo Africa 	Dakar	VoLo Trust Information Platform collects biometric, biographical and user data into a multiplatform scalable database	Financial, healthcare, insurance
cfao 	Dakar	Handling installation and maintenance projects for computer system data centres, printers and cybersecurity (175 engineers certified by Dell, Cisco, IBM, Microsoft, Oracle and others)	Energy, real estate, retail
Terinnova 	Dakar	Digital consulting and implementing IT solutions across information and network infrastructure systems management. Cyber security, UI/UX design, software services	Travel, marketing, retail
Sen Services Informatique	Dakar	ICT hardware supplier	ICT
Giande 2000 	Dakar	Single window development and maintenance, electronic payment solutions, digital security solutions	Government, public institutions, financial services
Vision Stats 	Dakar	Software engineering, IT outsourcing, big data training, artificial intelligence solution development	Government, ICT, energy
Huawei Technologies 	Dakar	Software services	Government, private sector
IBM 	Dakar	Support centre (back office)	-
InTouch 	Dakar	Aggregation of digital services, payment solutions, distribution network acquisition and management	Financial services

Source: Avasant Research

Service capacity and capability

Investing in human capital to fuel sector growth

The Human Capital Index measures workers' productivity relative to complete education and full health benchmarks. The index ranges from 0 to 1. Senegal scored 0.42 in 2018. The score remained unchanged in 2020 on the World Bank HCI.⁴⁵³ The country has made little progress

in the quality of human development. The table below looks at the availability and quality of talent in the Senegal IT/BPM sector and outlines its scalability prospects and opportunities.

Table 65 Pool of graduates

Talent and skill availability	
No. of universities: 16 ⁴⁵⁴	Senegal has 16 universities with 386 study programmes. In addition, 203 bachelor's programmes at 16 universities, 147 master's programmes at 16 universities and 36 doctoral programmes at six universities. ⁴⁵⁵ In Senegal, compulsory education lasts 11 years, from age 6 to 16. Senegal spent 5.5% of its GDP on education in 2020. Education constituted up to 22% of total government expenditure in 2020. ⁴⁵⁶
Youth unemployment: 5% ⁴⁵⁷ (2021)	
Tertiary gross enrolment ratio: 15.6% ⁴⁵⁸ (2021)	
Secondary gross enrolment ratio: 47% ⁴⁵⁹ (2021)	
Quality and employability of talent ⁴⁶⁰	
Quality of vocational training: Ranks 34th of 141 countries	The quality and availability of technical and vocational training, particularly information technology, have room to improve. Senegal ranked 114 th on the World Economic Forum Global Competitiveness Index 2019. ⁴⁶¹ However, the country ranked 28 th on the ease of finding skilled employees. This ranking is better than some leading countries in the subcontinent, such as South Africa. Regarding adult literacy, Senegal ranks behind its African neighbours. Youth literacy was 69% and adult literacy was 52%.
The skill set of graduates: Ranks 62nd of 141 countries	
Labour force with advanced education: ⁴⁶² 51% (2019)	
Ease of finding skilled employees: Ranks 28th of 141 countries	
Digital skills in active population: Ranks 71st of 141 countries	
Literacy <ul style="list-style-type: none"> ■ Youth literacy: 69%⁴⁶³ ■ Adult literacy: 52%⁴⁶⁴ 	
Language proficiency: English-speaking capability	
Scalability	
Senegal Virtual University Support Project ⁴⁶⁵	
The project aims to foster transformative change in science, technology and innovation policy. The university's technology-based approach targets youth in Dakar suburbs:	
<ul style="list-style-type: none"> ■ Saint Louis ■ Thiès ■ Kaolack ■ Ziguinchor 	
The three-year project aims to establish a technological platform, continue the design of training modules and train trainers. The project will enable 5,000 students to have laptop computers through the 'one student, one PC' programme. Internet access will be facilitated by conventions with private players in association with the state's Computer Technology Agency.	
The annual intake planned is 6,000 students once the infrastructure is in place. The other beneficiary socioeconomic categories are:	
<ul style="list-style-type: none"> ■ Educated women ■ GCE A Level holder (admission in L1) and A Level+2 certificate holders who want to continue their studies (admission in L3) ■ Professionals in active service ■ Special categories of people with difficulties in being physically present in school ■ Foreigners, as part of training or capacity-building programmes 	
Digitization and automation of manufacturing, agriculture and services drive demand for digital skills in sub-Saharan Africa. An estimated 230 million jobs across the continent will need digital skills by 2030. This means there are tremendous skill training opportunities in Senegal. Roughly \$130 billion of opportunity exists in digital skills across sub-Saharan Africa until 2030. ⁴⁶⁶	

ICT infrastructure

Government targets infrastructure improvements

The table below highlights the current state of the ICT infrastructure in Senegal.

Table 66 Most internet traffic comes from mobile devices

Telecom
<ul style="list-style-type: none"> ▪ Fixed telephone subscriptions (per 100 people)⁴⁶⁷ – 1 ▪ Mobile cellular subscriptions (per 100 people)⁴⁶⁸ – 114 ▪ Mobile phone subscribers⁴⁶⁹ – 15.7 million ▪ Penetration rate mobile services⁴⁷⁰ – 103.29% ▪ Overall mobile broadband coverage⁴⁷¹ – 90% ▪ 2G + 3G subscribers⁴⁷² – 9.34 million
<p>Most consumers in Senegal use prepaid mobile services rather than contract-based services. Competition among mobile service providers has lowered the prices per user. Consumers also mainly rely on smartphone services for internet access, which decreases demand for fixed home connections.</p> <p>The coverage rate of mobile broadband services is more than 90%. Orange, Tigo and Expresso hold most of the mobile services market. All three mobile operators have launched 3G services. Orange has launched 4G and 4G+, while Tigo obtained its 4G licence in 2018.⁴⁷³</p>
Broadband/bandwidth
<ul style="list-style-type: none"> ▪ Fixed broadband subscriptions (per 100 people)⁴⁷⁴ – 0.92 ▪ People using the internet (% of the population)⁴⁷⁵ – 62.97% ▪ International internet bandwidth per user (kilobits per second)⁴⁷⁶ – 8.35 ▪ % of households with internet access⁴⁷⁷ – 11.6% ▪ Mobile broadband coverage⁴⁷⁸ – 90%
<p>The fixed broadband penetration rate in Senegal was 0.92% at the end of 2020, above the regional average (0.6%) but far below the world average (13.6%). Mobile broadband has become the most popular way for people to access the internet because the connection is relatively fast and reliable, driven by good telecommunications infrastructure.</p> <p>Furthermore, the country is connected to more than 40 countries via a well-connected global network of submarine fibre optic cables: Main One, SAT-3/WASC, Atlantis-2 and the Africa Coast to Europe cable. Optical fibre connects all regions and departments in Senegal. In August 2017, Senegal launched its Internet Exchange Point.⁴⁷⁹</p> <p>The Alliance for Affordable Internet 2021 ranked Senegal 24th out of 72 countries in the affordability drivers index.⁴⁸⁰ The country is among the top 10 performers among the least developed countries benchmarked in the report.</p> <p>Senegal's telecom market continues to grow in all major sectors, supported by consumer demand, further accelerated post-pandemic, leading to a robust increase in subscriber base. Senegal ranks 113th of 233 countries on mobile data affordability (based on the worldwide mobile data pricing by Cable.co.uk). The average cost of 1 gigabyte of data is relatively expensive in Senegal, compared to other African economies, priced at \$1.53 on a 30-day plan.⁴⁸¹</p>

Power

- Electric power consumption (kWh per capita)⁴⁸² – **229**
- **Generation capacity**⁴⁸³
 - Installed capacity – **1,555 MW**
- **Connections**⁴⁸⁴
 - Current access rate – **69%**
 - Urban – **93%**
 - Rural – **47%**

Cost of electricity⁴⁸⁵

Business registration

Starting a local business

Starting a business in Senegal takes eight days compared to about 46 days for the sub-Saharan Africa region.

Technical procedures

- Get a copy of the criminal record of the founders.
- Deposit the founding capital with a bank.
- Notarize company bylaws and bank deposits of the subscribed capital.
- Register your business at the one-stop shop.

Registering a foreign business

Registering a foreign-owned limited liability company takes five procedures and 10 days in Senegal. This process is among the fastest in sub-Saharan Africa and much faster than the global average.

- A foreign company, in addition to procedures for establishing a domestic company, must obtain an import-export card for trading purposes from the National Agency for Investment Promotion and Major Projects or a business court.
- Entrepreneurs must register their company at the one-stop shop and receive a tax registration, company identification number, commercial registration and labour, social security and pension fund registrations. This takes only two days.
- According to the Economic Community of West African States, companies cannot open bank accounts in foreign currency without the approval of the Senegal Ministry of Finance and the Central Bank of West Africa.
- This approval must be an annual renewal.
- The minimum capital requirement of XOF 1,000,000 (~\$1,685) is applicable in all Organization for the Harmonization of Business Law in Africa member states.

Source: Avasant Research

Visa and immigration laws

Table 67 Business visas

<p>Legal and regulatory policies⁴⁸⁶</p>	<p>Senegal has several regulations in place for:</p> <ul style="list-style-type: none"> ■ Banking and finance law: <ul style="list-style-type: none"> – Framework law on banking regulations – Regulation No. 15-2002-CM-UEMOA relating to payment systems in the member states of the UEMOA – Law No. 2014-58 on the law relating to the processing of dormant accounts in the books of UEMOA financial institutions – Law 90-06 on banking regulations ■ Civil law: <ul style="list-style-type: none"> – Framework law on banking regulations - – Regulation No. 15-2002-CM-UEMOA relating to payment systems in the member states of the UEMOA – Law No. 2014-58 on the law relating to the processing of dormant accounts in the books of UEMOA financial institutions – Law 90-06 on banking regulations ■ Intellectual property law: <ul style="list-style-type: none"> – Law No. 2008-09 of 25 January 2008 on copyright and related rights ■ Privacy Law: <ul style="list-style-type: none"> – Law No. 2008-09 of 25 January 2008 on copyright and related rights ■ Tax Law: <ul style="list-style-type: none"> – Law No. 2008-09 of 25 January 2008 on copyright and related rights
<p>Labour laws (Labour Act 2003 - Act 651)⁴⁸⁷</p>	<p>Several regulations govern employment relationships, including:</p> <ul style="list-style-type: none"> ■ Act 97-17 of December 1997 (Labour Code) ■ Agreements specific to the various activity sectors ■ National Interprofessional Collective Agreement
<p>Visa and immigration policies⁴⁸⁸ (National Migration Policy 2016; Immigration Act and the Immigration Regulations)</p>	<ul style="list-style-type: none"> ■ Visitors need a visa except for visitors from one of the visa-exempt countries. ■ Visitors need to hold passports valid for at least six months from arrival. ■ Holders of a China Public Affairs passport can visit Senegal without a visa for up to 30 days. ■ Those with a <i>Laissez-Passer</i> issued by the Economic Community of the West African States or the United Nations travelling on official business are exempt from needing a visa. ■ Turkish nationals who hold diplomatic passports and those who hold official or service passports granted to citizens of Algeria, China, Gabon, Libya, Russian Federation, Uganda and United Republic of Tanzania do not require a visa. <p>In October 2019, the Senegalese Ministry of the Interior announced that Senegal would reintroduce visa requirements for all visitors except Economic Community of the West African States citizens.</p>
<p>Cybersecurity and data privacy regulations⁴⁸⁹</p>	<p>ICT initiatives are ongoing at the national level in the areas of e-government (eSenegal, Social Impact of ICT in Senegal), Universal Service Fund, Digital Divide (Multimedia Community Centres Programme, Networks and Info highways) Research (Centre de Recherche et d'Essai Programme, Scan ICT project), Senegal Observatory on Information Systems, Infrastructure (Grid Computing project, Brain Gain Initiative, Migration from Analogue to Digital Broadcasting project), Education and Research Network, Entrepreneurship (CTIC Dakar ICT Incubator) and eEducation (Virtual University of Senegal).</p> <p>The creation of the State Information Technology Agency was a key step in Senegal's ICT development. The agency adopted several laws to regulate the ICT environment in Senegal. These laws are in force:</p> <ul style="list-style-type: none"> ■ Law No. 2008-10 of 25 January 2008 on orientation law on information society ■ Law No. 2008-08 of 25 January 2008 on electronic transactions

- Law No. 2008-11 of 25 January 2008 on cybercrime
- Law No. 2008-12 of 25 January 2008 on the protection of personal data
- Law No. 2008-49 of 23 September 2008 establishing a voluntary contribution of 1% on public procurement of goods and digital services
- Law No. 2008-46 of 3 September 2008 establishing a royalty on access or use of public telecommunications network (RUTEL)
- Law No. 2008-41 of 20 August 2008 on cryptology

Source: Avasant Research

Trade associations offer a helping hand to tech firms

Table 68 Key associations and agencies

Agency	Contact
Senegalese Agency for Export Promotion	E-mail: senegalkl@ambasen-my.org Website: http://www.senegalexport.com/
Ministry of the Digital Economy and Telecommunications	Phone: +221 33 889 37 79 / +221 33 889 17 33 Website: http://www.numerique.gouv.sn/
<i>Agence de Promotion de l'Investissement et des Grands Travaux</i>	E-mail: infos@apix.sn Website: https://investinsenegal.com/en/



Growing market segments

Healthcare, agriculture and financial services

IT/BPM providers serve a variety of sectors, including government, telecommunications, financial services, healthcare and agriculture. Key economic sectors that have maximum business potential for ICT include:

Table 69 Three fast-growing sectors

Healthcare	
Healthcare spending: 6% of the GDP ⁴⁹⁰	<ul style="list-style-type: none"> Senegal spends an average of about 4% of its GDP on healthcare infrastructure. The spending per capita is \$59. The segment is projected to grow by 21.7% (2022–2025), reaching a market value of \$20.75 million in 2025.⁴⁹¹ The number of users is expected to be 1.9 million by 2025. The average revenue per user is likely to amount to \$8.28.⁴⁹²
Spending per capita: \$59 ⁴⁹³	
Projected growth: 21.7% (2022–2025) ⁴⁹⁴	
Agriculture	
Senegal fruit and vegetable market: \$1 billion	<ul style="list-style-type: none"> Senegal produces a half-million tons of fresh fruit and vegetables every year, representing a \$1 billion market opportunity.⁴⁹⁵ Technology has an enabling role by providing an end-to-end solution for formalizing the fresh food value chain and empowering small market operators. In 2022, Afrikamart, a Senegalese start-up using digital technology in the agriculture value chain, raised \$850,000 from venture capital firms such as BLOC Smart Africa.⁴⁹⁶ The agritech market or the market opportunity for digital services in agriculture in Africa remains largely unexplored. This market is estimated to be worth more than \$2 billion.⁴⁹⁷
Agritech market opportunity size in Africa: \$2 billion	
Financial services	
% micro, small and medium-sized firms in all business in Senegal: 90% (2020)	<ul style="list-style-type: none"> According to the Central Bank of West African States, Senegal had 30 banks and semi-banks as of 31 December 2020. That is the second-highest number of banks in the region, after Côte d'Ivoire.⁴⁹⁸ The proportion of Senegalese adults with access to formal financial services grew to 56% in 2021 from 15% in 2014. Growth is primarily driven by digital payments, strengthened by Senegal's adoption of the National Financial Inclusion Strategy in early 2022.⁴⁹⁹ With the formal adoption of the 2022–2026 National Financial Inclusion Strategy, Senegal aims to achieve 65% penetration in financial inclusion among adults and 90% for micro, small and medium-sized enterprises by 2026.⁵⁰⁰ Microfinance plays a vital role in the Senegalese economy. About 300,000 SMEs (90% of businesses in Senegal) account for 42% of employment and 33% of the total value added in 2021.⁵⁰¹
Global Fintech Index City Rankings (2020): 9th	

Source: Avasant Research

Market access opportunities

Healthcare, agriculture and financial services show the most promise

The trends in the growing market segments showcase the three sectors likely to drive demand for ICT services in Senegal: healthcare, financial services and agriculture.

Table 70 Three sectors offer different opportunities

Industry	Service area	Description
Healthcare	Digital health ⁵⁰²	<ul style="list-style-type: none"> ■ Digital health market is expected to reach \$81.44 million in 2022 ■ Annual growth rate (CAGR 2022–2027) is expected to register at 13.97% ■ The projected market volume is \$157 million by 2027 ■ The average revenue per user is estimated to be \$24 ■ Digital fitness and well-being is the largest segment, with estimated revenue of \$51 million in 2022. <p>Some of the key opportunities include:</p> <ul style="list-style-type: none"> ■ Telemedicine ■ Electronic medical records ■ Mobile health solutions
Financial services	Fintech Mobile money	<ul style="list-style-type: none"> ■ Digitization is a significant driver of the financial sector in Senegal, especially fintech. Dakar is ranked 9th in Africa by the Global Fintech Index City Rankings 2020. An estimated 24 fintech companies and 47 incubators, enablers and funding partners are active in Senegal. More than 40% of fintech is in payments, followed by financial services marketplace and aggregators at 29%, and technology and process enablers at 17%.⁵⁰³ ■ This will also enable providers that may not have a highly technical service capability to tap into the sector for services including:⁵⁰⁴ <ul style="list-style-type: none"> – Contact centre services – Electronic money and associated services – Money transfer services – Payment aggregation platform and associated services
Agriculture	Agritech	<ul style="list-style-type: none"> ■ In a 2018 survey by CTA, a joint institution within the framework of the Cotonou Agreement between European Union member states and the African, Caribbean and the Pacific Group of States, more than 35% of participants in Africa (including Senegal) indicated using at least one of advanced technology such as field sensors, drones, big data or machine learning in the agriculture sector.⁵⁰⁵ <p>Some of the key opportunities include:</p> <ul style="list-style-type: none"> ■ Use of technology in farming techniques ■ Optimizing supply chain using technology platforms

Source: Avasant Research

South Africa

The African BPM leader and economic gateway to exploring Africa



SOUTH AFRICA

Macroeconomic and country data



Capital: **Pretoria** (executive), **Cape Town** (legislative), **Bloemfontein** (judicial)

GDP 2021 (constant 2015 prices): \$353.26 billion

GDP per capita 2021 (constant 2015 prices): \$5,948

Real GDP growth rate 2021: 4.9%

Inflation rate (July 2022): 7.8% (Consumer inflation)

Population: 60 million (2021)

- 0–14 years: 28.3%
- 15–64 years: 66%

Population growth rate: 1.24% (YoY)

Major business sectors: Oil, agriculture, telecommunication, manufacturing, finance

Official unemployment rate 2021: 34.3% (Average of four quarters in 2021)

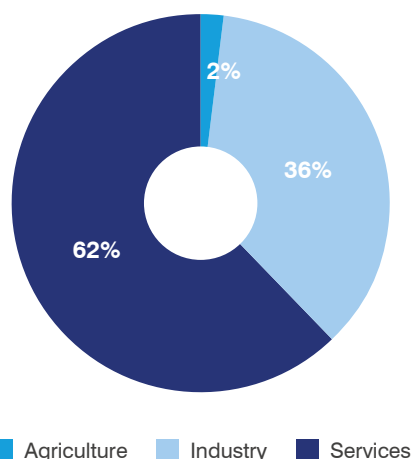
Literacy rate: 95%

Urbanization (2021): 68%

Major trade and industry associations:

- Business Process Enabling South Africa
- Trade and Investment South Africa
- InvestSA

GDP composition (2021)



Key facts

Currency: South African rand (ZAR)

Exchange rate (per U.S. dollar): ZAR 17.56 (July 2023)

Foreign direct investment inflow 2021: \$40.89 billion

Major languages: Zulu, Xhosa, Afrikaans, English, Northern Sotho

Major religion: Christianity

Major exports: Mineral products, precious metals, petroleum products, vehicles and machinery

Country highlights

Blessed with abundant natural resources, South Africa is an emerging upper-middle income market that has made rapid strides in urbanization.

The country covers an area of 1,221,000 km². GDP is projected to grow by 1.8% in 2022 and 1.3% in 2023, driven by robust household consumption and investment.

The COVID-19 relief grant will continue to fuel growth in household income. The investment will continue to grow in the near future. Inflation is projected to increase further due to higher energy prices, partly driven by the Ukraine conflict.

Sources: World Bank, UNCTAD, UNESCO, Statistics South Africa, Independent Communications Authority of South Africa, Avasant Research

Government incentives and policies for IT/BPM

Incentives for long-term job creation

Over the last decade, South Africa has modified its economic and business policies to attract investors and promote trade and commerce. The Department of Trade and Industry has played a critical role in drawing international

investments into the business process outsourcing sector. It has also supported various public/private/not-for-profit bodies and created an enabling ecosystem for the IT/BPM sector.

Table 71 Key bodies in the ecosystem

Key bodies	Role
Business Process Enabling South Africa	<p>A not-for-profit industry body and investment promotion agency. It leads industry-wide initiatives, including:</p> <ul style="list-style-type: none"> ▪ Facilitating collaboration between the private and public sectors across the skill supply chain to share knowledge and work on projects to address future skill requirements; ▪ Developing a skills portal that allows BPM operators and suppliers of skill development services to interact via a single platform; ▪ Organizing quarterly skill forums across the country to create a networking and knowledge-sharing forum focusing on the skill supply chain.
Harambee	<p>A not-for-profit social enterprise that partners with businesses, government and local talent to help meet human capital demands and tackle youth unemployment</p>

Source: Avasant Research

In June 2019, Business Process Enabling South Africa signed a five-year memorandum of association with the Department of Trade and Industry and Harambee. The memorandum is unique in that it brings government, business and a strategic social enterprise together to achieve clearly defined goals based on initiatives that the parties collectively defined (in the Jobs Summit Framework Agreement). It also provides the engagement framework best suited to realize the full value of each partner, with clear accountability for all parties.

There has been an uptick in companies hiring impact-sourcing workers. This reflects the increasing number of programmes put in place by the Government, which is also working closely with investors, the private sector and industry associations to strengthen the ecosystem. This has resulted in key partnerships between industry associations and international bodies such as the Rockefeller Foundation, the Global Impact Sourcing Coalition and the International Association of Outsourcing Professionals.

The South African global business services sector is targeting 100,000 new jobs by 2023 and 500,000 by 2030. The Government has recognized BPO as a priority sector and plans to roll out a master plan to achieve its target.

Global companies also playing a crucial role in boosting employment in South Africa. In 2020, Amazon hired 3,000 people to support customers in North America and Europe. In the city of Cape Town, more than 6,000 new job opportunities were created in the BPO sector between January and December 2020. In February 2021, consumer credit reporting agency TransUnion opened a new BPO centre in the country.⁵⁰⁶

Further, the public sector has made concerted efforts to develop and promote IT/BPM in South Africa. Initiatives include:

- Development of the Coega Industrial Development Zone, which houses a business process outsourcing park with robust power and telecommunication infrastructure spread across 9,000 square metres and provides access to 4,000 skilled workers.
- Development of Tshwane Business Process Outsourcing Park (still under construction) to provide world-class facilities with high-speed fibre-optic links, Voice over Internet Protocol services, high redundancy servers and on-site technical support for IT/BPM operations. The park will spread across 23 hectares of land and is poised to attract \$35 million in investment.

Business Process Services incentive programme

Considering the potential of the IT/BPM sector to stimulate economic growth, strengthening the profile of South Africa in the global environment and generating employment, the Government developed the Business Process Services incentive programme. This initiative aims to attract

investment and create employment opportunities, primarily for the youth, through offshoring activities. The incentives have resulted in the creation of an additional 20,000 direct jobs in the sector with an average annual growth rate of 22% in 2014–2018. The most important incentives include:

Table 72 Key incentives

Key incentives	Description
Lump sum cash incentive	Lump sum cash incentive per job created for a minimum number of jobs created and a bonus paid at the end of five years. <ul style="list-style-type: none"> ▪ bonus for applicants that create and maintain more than 200 offshore jobs ▪ bonus for highly complex jobs available to applicants that create and maintain more than 100 offshore jobs
Seda Technology Programme	Offers grants to provide technical support to small and women-owned enterprises
Employment tax incentives	Incentives encourage employers to hire young work seekers through a cost-sharing mechanism with the Government
Special economic zone incentives	Incentives cover a wide range of building and rental allowances, corporate tax and employment incentives upon setting up operations in a special economic zone

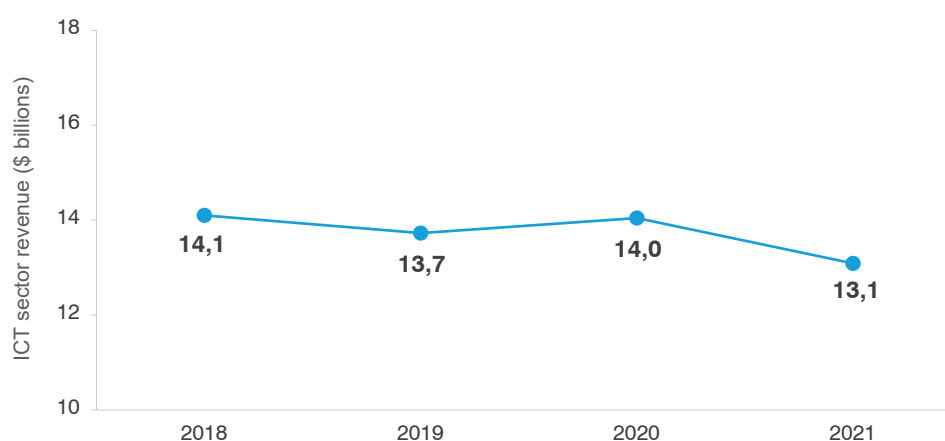
Source: Avasant Research

Information and communications technology landscape

Technology sector: A major job market for youth

ICT is a major driver of economic growth in South Africa. Amid a growing unemployment rate, the sector has been a major job market for South African youth. Revenue from ICT largely declined slightly over 2018–2021.⁵⁰⁷

Figure 24 ICT sector revenue decreased by 7% in 2018–2021

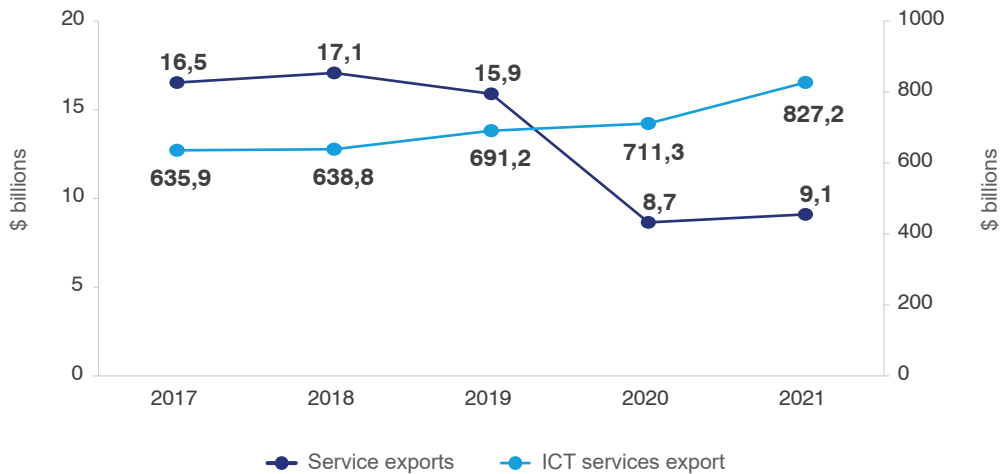


Source: The Independent Communications Authority of South Africa, Avasant Research

In 2017, South Africa exported \$636 million in ICT services – a measure of IT/BPM services – accounting for 3.85% of total service exports.⁵⁰⁸ In 2021, ICT exports were valued at \$827 million (accounting for 9% of total service exports), an

impressive 30% growth from 2017. Exports of ICT services grew at a CAGR of 5.4% in 2017–2021, while overall services exports declined at a CAGR of 11.25% in the same period, underscoring the growing importance of IT/BPM to the economy.

Figure 25 ICT exports outperformed service exports in 2017–2021



Source: World Bank (Total Services Exports, ICT Services Exports)

South African technology snapshot

Attractiveness factors

Multilingual capabilities
 relatively large talent pool in African subcontinent with proficiency in French, Italian, German and Dutch

EN Native English talent
 with 16.5 million native English speakers

Young workforce
 with more than 17.6 million people between 18 and 35 years of age and more than 50,000 IT and engineering degree holders available to hire each year at entry level⁵⁰⁹

Booming fintech industry with digital payments
 the largest segment, with a total transaction value of \$14.34 billion in 2022⁵¹⁰

Strong government focus
 Government via the ICT small, medium, and micro-enterprises development strategy, seeks to accelerate sector growth through capacity building, incubation and networking

Main highlights

Workforce: ~ 43,862⁵¹¹

Average base salary (monthly): ~ \$2,040⁵¹²

Main IT/BPM service offerings: Contact centre services, non-voice business process services, legal process services, quality multichannel customer services, data analytics, IT infrastructure and application development

Key industries served: Financial services, telecommunications, healthcare, retail, broadcasting

Major markets served: European Union, United Kingdom, United States and Australia

Examples of buyers:



Key IT/BPM associations and agencies:

- Business Process Enabling South Africa
- The Information Technology Association of South Africa
- Institute of Information Technology Professionals South Africa

Source: Avasant Research

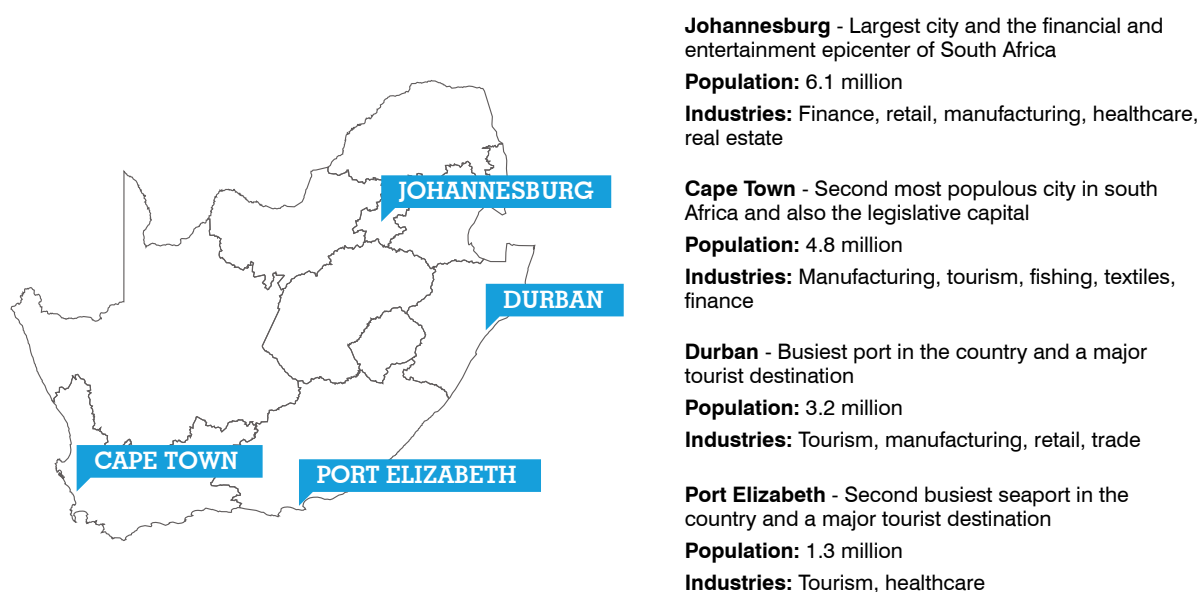
Key cities and technology centres

Geographical concentration of Technology firms

Six cities in South Africa have a population of at least 1 million people.⁵¹³ Johannesburg is the largest, with 6.1 million people. According to World Population Review, South Africa grows 1%–2% on an average every year.⁵¹⁴

The next figure highlights the South African cities with the most active IT/BPM enabling environments.

Figure 26 Biggest cities and seaports have favourable conditions for tech



Source: Avasant Research

South Africa is home to the second most valuable tech ecosystem in Africa. The Western Cape and Gauteng provinces form the core of the South African technology and innovation scene.

Table 73 A few key hubs, tech parks and start-ups are spread around different cities

Tech hub	ICT incubator
Johannesburg	<ul style="list-style-type: none"> ▪ Impact Hub ▪ Jozihub ▪ Alphacode ▪ Sage Technology Park ▪ Eastern Cape Information Technology Initiative
Durban	<ul style="list-style-type: none"> ▪ Durban Technology Hub ▪ InvoTECH ▪ SmartXchange

Tech hub	ICT incubator
Cape Town	<ul style="list-style-type: none"> ■ The UK-South Africa Tech Hub ■ Silicon Cape ■ Impact Amplifier ■ Code Bridge ■ Cape Innovation and Technology Initiative ■ RLabs ■ Startup 90
Other cities	<ul style="list-style-type: none"> ■ The Innovation Hub, Pretoria ■ BPO Park at Coega Industrial Development Zone, Port Elizabeth ■ Tshwane BPO Park, Tshwane ■ Eastern Cape Information Technology Initiative, East London ■ Technopark Stellenbosch, Stellenbosch ■ Highveld Techno Park, Centurion ■ Softstart Business and Technology Incubator, Midrand ■ mLab Southern Africa, Pretoria ■ Fablab (multiple cities)

Source: Avasant Research

The state of competition: Understanding the landscape

A competitive market

The service provider landscape in South Africa encompasses a broad spectrum of players primarily offering contact centre and other BPM services. There are a few IT and software service firms as well, though this segment is less competitive. IT companies typically offer data centre and infrastructure hosting, computing and storage solutions, and managed services. There is a mix of service providers, with local, regional and international operations serving clients across geographies.

IT spending in South Africa was predicted to grow about 6.5% in 2022. The market will surpass \$28 billion, while telecommunications will surpass \$11 billion, growing at 5%. Infrastructure spending is expected to grow at 8%–10%, while managed services, platform as a service and software as a service will grow by 7%.⁵¹⁵ South Africa's primary challenge is skills shortage. Key skills in high demand but poor supply are data and analytics, cybersecurity, cloud and application development.

Some highlights of the service provider landscape are described below:

- **Key locations:** Providers mainly operate out of major cities, namely, Johannesburg, Cape Town, Durban and Port Elizabeth.
- **Highly competitive and growing services market.** The BPM industry has grown exponentially over the past five years. Cape Town has played a key role in strengthening the African ICT industry. ICT firms in the city are building advanced analytic capabilities, creating new digital solutions and providing English-language training applications to BPO industries in countries such as China, Chinese Taipei and Japan.

The WESGRO, Cape Town and Western Cape's official tourism, trade and investment promotion agency is playing a critical role in positioning the region of Cape Town and Western Cape as a superior digital ecosystem. The agency, in association with the Western Cape Town Government and private sector players such as CITI, LaunchLab, Silicon Cape and Startup Bootcamp, have started initiatives to attract international funding and investments.⁵¹⁶

■ **Deep expertise in BPM and call centre services.**

South Africa is the BPM service leader and favoured African destination. The sector is mature, and providers are now transitioning to omnichannel contact centres, offering add-on services such as customer analytics and insights in addition to traditional contact centre services. Global contact centre standard ISO 18295 is based on South African standards (South Africa led the global standard development).







The Government is playing a pivotal role in developing the ICT sector. More than 80,000 jobs have been created in the country, with 22% annual growth in new jobs over 2018–2021. This was driven by strong government partnerships with the private sector. In 2021, seeking to create 250,000 to 500,000 jobs by 2030, the Government introduced a Global Business Services Master plan⁵¹⁷ that has a two-fold strategy: increase revenues from existing technology services by securing additional technology work and acquire new customers.













■ **Growing front- and back-office industry.** Major global brands are setting up a new front- and back-office centres in Africa. Brands such as Amazon, American Express, BMW, British Gas, Lufthansa, Samsung and T-Mobile are some of their key clients in South Africa. The Global Business Services Master plan also plays a key role to further drive the growing front- and back-office industry.⁵¹⁸

■ **Specialized services:** Service providers have capabilities and expertise in niche areas including legal process outsourcing, social media customer analytics and automation.

The following table describes the main services offered and industries served by some of the leading service providers in South Africa. International companies are highlighted in blue.

Table 74 Service providers

Service provider	Headcount / Location	Examples of services offered	Industries served
 AdaptIT	1,000	IT services and specialized solutions, business intelligence, enterprise resource planning, software maintenance, back-office operations	Manufacturing, financial services, education, energy and utilities
 EOH	5,000 / Johannesburg	IT managed services, contact centre	Financial services, telecom, manufacturing and logistics, mining, energy, retail, public sector utilities, healthcare
 HCL	Cape Town, Sandton	Application development and maintenance, infrastructure services, help desk and customer support services	Insurance, banking, entertainment, healthcare, retail, telecommunication, travel and hospitality
 WNS	10,000 / Cape Town, Durban, Centurion, Port Elizabeth	Customer contact centre services, finance and accounting services, research and analytics services, human resource services, legal process services, transformation solutions, procurement solutions, risk management solutions	Financial services, utilities and energy, telecom, fast-moving consumer goods, media and entertainment, travel and leisure, online retail, ICT
 Altron	10,000 / Midrand	Customer engagement solutions, outsourced learning solutions, enterprise application support, managed services, software development, end-user computing services	
 Dimension Data	15,000 / Johannesburg	Software design and deployment services, managed services for applications and infrastructure, cloud and hosting services, omnichannel customer support	Financial services, mining, telecommunication, energy, utilities, retail

Service provider	Headcount / Location	Examples of services offered	Industries served
TBS Global 	250 / Pietermaritzburg	Call centre, back-office solutions – multichannel support, content management	Finance, telecommunication, logistics
Indox PTY Ltd 	250 / Cape Town	Non-voice BPM/back-office services – professional document collection and BPM services	-
Integreon 	3,000+ / Johannesburg	Non-voice BPM/back-office services – legal, document, business and research support solutions to leading law firms, corporate legal departments, financial institutions	Retail, healthcare, finance, legal
Outworx Contact Centre 	5,000 / Durban	Financial services, customer services, inbound sales, front office, legal process outsourcing, debt collection, outbound sales, back office, lead generation	Utilities, insurance, retail, telecommunication
SA Commercial 	250 / Cape Town	BPM contact centre and financial services	Banking, insurance
Boomerang Marketing Solutions	250 / Wynberg	Contact centre, telemarketing and telesales, lead generation and appointment setting	Insurance, hospitality, tourism, utilities, telecom
Coracall 	500 / Durban	Outbound offshore contact centre specializing in sales campaigns	Telecommunications, energy and financial services sectors
3iSolutions 	250 / Cape Town	Lead generation and customer management solutions, consumer support, business support, tailored solutions	-
iContact 	1,200 / Cape Town	Customer care, technical support, customer acquisition, analytics, and a range of other BPM services	Insurance, banking, entertainment, healthcare, retail, telecom, travel and hospitality
Stellar BPO 	5,000 / Cape Town	Omnichannel customer management, credit management, self-service interactive voice response, customer insights, outbound sales and service, web chat, workflow management, recruitment services, knowledge management	-
MPC Connect 	1,700 / Johannesburg	Shared and managed services, back-office operations, technology support	Real estate, retail, education, electronics
wiGroup 	100 / Cape Town	Mobile transaction solutions, business information systems, information technology, loyalty programmes, mobile, mobile apps, software	Retail, e-commerce, insurance, banking, hospitality
Cipherwave 	100 / Johannesburg	Cloud services including disaster recovery as a service, backup as a service, cloud connect, Office 365, hosted PBX	Logistics, manufacturing, retail, legal, healthcare, media, financial services

Service capacity and capability

High youth unemployment and large graduate pool: A serious problem

South Africa, one of the most developed countries in sub-Saharan Africa, is ranked 126th of 157 countries in the World Bank 2018 HCI. Further, in 2020, South Africa scored 0.4 on an HCI scale of 0–1.⁵¹⁹ Although the country has made significant investments in education (6% of GDP⁵²⁰), healthcare (9% of GDP⁵²¹) and social assistance (3.3% of GDP⁵²²), this has not resulted in a corresponding improvement in the Human Capital Index. This is further compounded as the country grapples with its highest youth (ages 15–24) unemployment rates in a decade.

Role of global business services in tackling unemployment

Global business services created more than 50,000 new jobs – mostly for young people – over the 18-month period between January 2018 and the second quarter of 2021. The country has been doing well on a global front. In April 2021, the Ryan Strategic Advisory Annual Front Office BPO Omnibus Survey awarded South Africa the 'Most Favoured Offshore CX (customer experience) Delivery Location'. In October 2021, the country was recognized as the global business services World Top Africa Performer Award.⁵²³

The table below looks at the availability and quality of talent in the South African IT/BPM sector and outlines its scalability prospects and opportunities.

Table 75 Tech sector can draw from large pool of new graduates

Talent and skill availability	
No. of universities: 26 ⁵²⁴	<p>South Africa reformed the higher education system in 2004 by consolidating its smaller public universities into large institutions. Today, there are 26 public universities categorized as:</p> <ul style="list-style-type: none"> ■ Traditional universities – offering theoretically oriented university degrees ■ Technikons – technology universities offering vocational diplomas and degrees ■ Comprehensive universities – offering a combination of both types of qualification <p>South African universities and colleges enrolled more than a million students into their graduation programmes in 2022.⁵²⁵</p> <p>With more than 13,000 postgraduates and 60,000 graduates holding technical degrees entering the job market every year, potential IT/BPM professionals can be drawn from the large pool of fresh graduates.</p> <p>Additionally, there is a regular annual influx of non-technical graduates in domains such as legal (more than 7,000) and actuaries (more than 2,500). These graduates can be hired in high-value niche domain services including legal process outsourcing and financial services.⁵²⁶</p>
Annual tertiary graduates: ~ 200,000 ⁵²⁷	
Youth unemployment 2021 (annual average): 64% ⁵²⁸	
Unemployment rate among graduates 2021: ⁵²⁹	
<ul style="list-style-type: none"> ■ 15–24 Years – 65% ■ 25–34 Years – 43% 	
Tertiary gross enrolment ratio (2019): 24% ⁵³⁰	

Quality and employability of talent	
Quality of vocational training: Ranks 119th of 141 countries	In terms of adult and youth literacy, South Africa is ahead of the global average and many countries competing for a share of the offshore services market. Adult male literacy stands at 95% and adult female literacy stands at 93%. South Africa ranks 84 th in the global education system. It spends about 20% of its annual budget on improving the educational standard. ⁵³¹
Skill set of graduates: Ranks 102nd of 141 countries	
Ease of finding skilled employees: Ranks 98th of 141 countries	Impact sourcing constitutes more than 25% of the global services market in South Africa. This is mainly driven by the contact centre industry, which hires many unemployed high school graduates (who qualify as impact-sourcing workers).
Digital skills in active population: Ranks 126th of 141 countries	Based on the WEF Global Competitiveness Index, 2019 South Africa performs slightly below average in higher education and training, ranking 77 out of 141 countries. The scoring, on a scale of 1 to 7, assesses how well the education system meets the needs of a competitive economy, with 1 representing not well at all and 7, extremely well. The country scored 4.2 on the Global Competitiveness Index, signalling that improvements are needed in the quality and availability of technical and vocational training – particularly in information technology. ⁵³²
Literacy ⁵³³ <ul style="list-style-type: none"> ■ Youth literacy: 98% ■ Adult literacy: 90% 	The country performs just above average in terms of the skill set of graduates, scoring 3.7 (out of 7) on the extent to which university graduates have the skills that businesses need. On the ease of finding skilled employees, the country scored 3.9.
Language proficiency: High English-speaking capability; multilingual capabilities in French, Italian, German and Dutch	These scores illustrate that there are gaps in the training, upskilling and quality of graduates entering the job market.
Scalability	
<p>The combination of a large pool of tertiary graduates and high unemployment rates means there are prospects for IT/BPM operations to scale. However, there must be adequate training mechanisms to supplement the skills of these graduates and enable them to perform effectively.</p> <p>Efforts have been made to strengthen the ICT talent pool in South Africa, including:</p> <ul style="list-style-type: none"> ■ The Monyetla Work Readiness Programme trains unemployed young people to prepare them for successful employment in the BPM industry. The programme aims to place 70% of the trainees in six-month employment contracts.⁵³⁴ ■ CapaCiTi tech skills and job readiness programme seek to contribute a steady supply of skilled employees with relevant digital skills matching the industry demands. It offers a variety of coding, technical and soft skills training programmes to unemployed youth, along with psychological and mentoring support.⁵³⁵ ■ Huawei's LEAP programme aims to train 100,000 Africans on digital skills by 2025. Pioneered by Huawei, LEAP will be driven by 1,200 instructors, facilitating 3,000 ICT courses. The programme will also fund existing training facilities, innovation hubs, hardware installation bases, mirror labs and ICT academies. Huawei has ICT training tie-ups with more than 300 universities and colleges in the African region.⁵³⁶ ■ Media, Information and Communication Technologies Sector Education and Training Authority Skill Plan 2020–2025 aims to offer skill development plan in advertising, film and electronic media, electronics, IT and telecommunications industries. It is made up of more than 21,000 companies across the five subsectors. About half of the sector employer base are organizations in ICT, followed by telecommunications (15%), electronics (13%), film (12%), electronic media (12%) and advertising (12%). The plan is updated each year to accommodate changes in South Africa's labour and enterprise market.⁵³⁷ ■ The Government promulgated the Skills Development Act in 1998 to develop the skills of the workforce and improve the quality of life and work prospects of South Africans. The Sector Education and Training Authority is responsible for disbursing the training levies payable by all employers.⁵³⁸ 	

Source: Avasant Research

ICT infrastructure

Government develops many infrastructure initiatives

South Africa is a leader among African countries in terms of ICT infrastructure. Internet usage has grown exponentially due to rapid adoption of mobile phones and smart devices. As of January 2022, mobile connection penetration was around 180% (average of two SIMs per person) and internet penetration stood at 68% of the total population.⁵³⁹ Some 99.9% of the population had 3G coverage in 2021, 98% had 4G/LTE and 7.5% had 5G.⁵⁴⁰

While the country has a good mobile network coverage, it faces challenges in terms of ICT infrastructure availability and stability. The Government has tried to improve the ICT infrastructure through initiatives such as the National Broadband Policy 2013 and the National Development Plan.

To encourage digital inclusion and economic growth, the Department of Communications and Digital Technologies

has been tasked to create an enabling policy and regulatory environment. The objectives include:

- Facilitating multi-stakeholders' participation for inclusive digital transformation
- Interventions to facilitate innovation and reinforce competition across the ICT value chain
- Address issues in the ICT sector
- Design policies to facilitate affordable access and address the digital divide, infrastructure rollout, address supply and demand side issues

The next table highlights the current state of the ICT infrastructure in South Africa.

Table 76 Advanced network infrastructure pays off

Telecom																					
■ Fixed telephone subscriptions (per 100 people) – 4 ⁵⁴¹																					
■ Mobile cellular subscriptions (per 100 people) – 162 ⁵⁴²																					
Historically, the service levels and quality of fixed-line telephony in South Africa were below par. This created an urgent need and opportunity for mobile telephony and internet.																					
With a combination of public and private investments and a push towards next-generation network capabilities such as long-term evolution and fibre optics, South Africa now has the most advanced network infrastructure on the continent. Its network is 99.9% digital and includes the latest in fixed-line, wireless and satellite communication. It is the only African country that has begun to pilot 5G technology.																					
The Independent Communications Authority of South Africa allocated a temporary spectrum to Vodafone during the COVID-19 pandemic. Through this, the operator was able to launch a 5G network in Cape Town, Johannesburg and Pretoria in May 2020. The regulator also allocated temporary spectrum to MTM, South Africa's second-largest telecom operator, through which the company deployed its first 5G services. In June 2020, MTN launched 100 5G sites across Cape Town, Johannesburg, Port Elizabeth and Bloemfontein. Other operators such as Telkom, Liquid Telecoms and Cell C have also launched 5G networks. ⁵⁴³																					
Telecom sector revenue trends (2021)																					
<table border="1"> <thead> <tr> <th>Year</th> <th>Total Telecom Revenues (\$ million)</th> <th>Mobile Services Revenues (\$ million)</th> <th>Fixed Line Services Revenues (\$ million)</th> </tr> </thead> <tbody> <tr> <td>2018</td> <td>\$14,101</td> <td>\$57,485</td> <td>\$897</td> </tr> <tr> <td>2019</td> <td>\$13,725</td> <td>\$6,928</td> <td>\$753</td> </tr> <tr> <td>2020</td> <td>\$14,043</td> <td>\$7,374</td> <td>\$564</td> </tr> <tr> <td>2021</td> <td>\$13,086</td> <td>\$7,446</td> <td>\$426</td> </tr> </tbody> </table>		Year	Total Telecom Revenues (\$ million)	Mobile Services Revenues (\$ million)	Fixed Line Services Revenues (\$ million)	2018	\$14,101	\$57,485	\$897	2019	\$13,725	\$6,928	\$753	2020	\$14,043	\$7,374	\$564	2021	\$13,086	\$7,446	\$426
Year	Total Telecom Revenues (\$ million)	Mobile Services Revenues (\$ million)	Fixed Line Services Revenues (\$ million)																		
2018	\$14,101	\$57,485	\$897																		
2019	\$13,725	\$6,928	\$753																		
2020	\$14,043	\$7,374	\$564																		
2021	\$13,086	\$7,446	\$426																		
Source: Independent Communications Authority of South Africa																					

Telecommunication revenue declined 6.8% in 2021 after rising 2.3% in 2020, according to the regulator. Mobile services revenue rose by 6.4% in 2021. Revenue from fixed lines has been decreasing, falling 24.4% in 2021. This signals a shift towards mobile and wireless networks and telephony services.

The Government has taken significant steps to support the telecom sector. It has:

- enforced regulations to open the market and enable telephone and mobile service providers to improve network connectivity jointly;
- amended the Communications Act to attract new entrants and increase competition;
- created Broadband InfraCo, a national infrastructure company that provides cheap backbone network capacity to service providers.

These efforts have helped South Africa become one of the most advanced countries in terms of a very well-developed mobile ecosystem.

Broadband/bandwidth (2020)⁵⁴⁴

- Fixed broadband subscriptions (per 100 people) – **2.2**
- Active mobile cellular subscriptions (per 100 people) – **162**
- People using the internet (% of population) – **70%**
- International internet bandwidth per internet user (kilobits per second) 2016⁵⁴⁵ – **149.5**
- % of households with internet access – **64.7%**

The number of fixed broadband subscriptions rose 20% to 1.8 million in 2021 from 1.5 million in 2020, though fixed broadband penetration is low: only 10% of South African households are connected to a stable broadband.⁵⁴⁶ While adoption of fixed broadband is slow, broadband speeds almost doubled over 2019–2022, to 31.34 Mbps median download speed in the first half of 2022 from 15.11 Mbps in the first half of 2020, speed test intelligence shows. This resulted from increased fibre connections and market competition.

Fixed line broadband subscriptions grew by 20.4% in 2021, according to the Independent Communications Authority of South Africa. Fibre-to-the-home/building subscriptions grew to 1.4 million in September 2021 from 31,843 in September 2015, steadily replacing DSL lines.⁵⁴⁷

The Broadband Commission for Sustainable Development says entry-level broadband services should be affordable in low- and middle-income countries at less than 2% of monthly GNI per capita by 2025. In South Africa, the monthly GNI per capita was 4.59% in 2020 for the fixed broadband 5GB basket.⁵⁴⁸ The cost of a data-only mobile broadband package (1.5 GB) was 2.53% of GNI per capita in 2020.⁵⁴⁹

South Africa ranked 135th of 233 countries on mobile data affordability in 2022 (based on the worldwide mobile data pricing by Cable.co.uk), as the average price of 1 gigabyte of data is \$2 on a 30-day plan.⁵⁵⁰ That is equivalent to nearly two weeks of work for people earning the minimum wage.

To make broadband attractive and affordable, a balanced ecosystem must be developed to leverage both fixed and mobile broadband services. In this ecosystem, fixed broadband would primarily serve the demands for high bandwidth volumes, speed, consistent performance levels, concentrated demand and affordability. Mobile broadband would complement fixed broadband to extend affordable access to sparsely distributed or mobile customers.

South Africa Connect is the national broadband policy and associated strategy and plan. The vision for broadband is 'a robust information infrastructure by 2030, creating a connected information society that is inclusive and prosperous'. Targets set for 2030 include 100% penetration at 10 megabytes per second and 80% penetration at 100 megabytes per second.⁵⁵¹

Power⁵⁵²

- Electric power consumption (kWh per capita) – **4,198**
- **Generation capacity**
 - Installed capacity – **58,095 MW**
- **Connections**
 - Current access rate – **95%**

Power shortages challenge South Africa. The state power utility produces 90% of all electricity and its infrastructure needs revamping, so the country is trying to cut its reliance on coal-based power generation.

The Ministry of Energy drafted an updated Integrated Resource Plan prescribing the energy mix to meet demand to 2030. The Government signed 27 new renewable energy projects in 2018, representing 2,130 MW of generation capacity.

Cost of electricity (2021)⁵⁵³		
	Cost (\$) household, kWh	Cost (\$) business, kWh
South Africa	0.149	0.07
World average	0.15	0.13

Business registration

- Private companies may be registered with a standard or a customized memorandum of incorporation that sets out the rules agreed by the shareholders for the management and maintenance of the business.
- Register on the Companies and Intellectual Property Commission website as a new customer.
- Deposit 125 rand (\$7) for company registration without a name reservation or 175 rand (\$9.80) for a company registration with a name reservation into the Companies and Intellectual Property Commission bank account.
- Reserve a corporate name through one of the following procedures:
 - Applying for a name as part of the process
 - Reserve the name first, and then register the company
 - Register using the enterprise number as company name
 - Register company with a standard memorandum of incorporation (online).
 - Scan and e-mail the signed forms and supporting documents to the Companies and Intellectual Property Commission.
- The service delivery standard for a name reservation is five working days from the date of submission.

Source: Avasant Research



Tech policy in South Africa

Numerous public institutions and agencies oversee the ICT sector. Among the most prominent are:

- **The Department of Telecommunications and Postal Services**, which oversees the South African communications, telecommunications and broadcasting industries as well as top-level development and policy planning;
- **The Independent Communications Authority of South Africa**, an independent government body that regulates the telecommunications and broadcasting sectors in the public interest;
- **The Information Technology Association**, which promotes high standards within the IT industry and is the premier trade and employer body of the South African IT industry.

Generally, outsourcing transactions are not specifically regulated under South African law. However, various laws have an impact on outsourcing. These are described below.

*IT and cloud services*⁵⁵⁴

When processed data qualify as 'personal information' per the definition in Section 1 of the Protection of Personal Information Act No. 4 of 2013 (POPIA), the provisions of the act apply. The provisions include:

- Promote the protection of personal information processed by private and public bodies;
- Introduce certain conditions to establish minimum requirements for processing of personal information;
- Provide for the establishment of an Information Regulator to exercise certain powers and to perform certain duties and functions in terms of this Act and the Promotion of Access to Information Act, 2000;
- Provide for the issuing of codes of conduct;
- Provide for the rights of persons regarding unsolicited electronic communications and automated decision making;
- Regulate the flow of personal information across the borders of the republic; and provide for matters connected therewith.

From a contractual perspective, appropriate data protection clauses must be included in the outsourcing agreement to ensure that it is in compliance with POPIA. Data protection risks can be managed by ensuring that the outsourcing agreement regulate the handling or processing of customer's data from a POPIA perspective. The risks include supplier's non-compliance with POPIA norms and/or any resultant breach of the provisions of POPIA, by the customer, as a result of supplier's non-compliance.

*Public sector outsourcing*⁵⁵⁵

All public sector outsourcing agreements must take into consideration:

- Constitution of the Republic of South Africa, 1996
- Public Finance Management Act No. 1 of 1999 (PFMA)
- Municipal Finance Management Act No. 56 of 2003 (MFMA) and Municipal Systems Act No. 32 of 2000 (MSA)
- Broad-Based Black Economic Empowerment Act No. 53 of 2003 (B-BBE)
- Promotion of Administrative Justice Act No. 3 of 2000 (PAJA)
- Preferential Procurement Policy Framework Act No. 5 of 2000 (PPPFA)
- Public Service Cloud Computing Determination and Directive (PSCCDD)
- General rules applicable to administrative law and constitutional law

*Outsourcing services in Telecom Industry*⁵⁵⁶

In general, there are no regulations that specifically relate to the outsourcing of telecommunications services. Hence, the outsourcing contracts in telecom must comply with general telecommunications-related obligations under the relevant provisions of the Electronic Communications and Transaction Act No. 25 of 2002 (ECTA), the Electronic Communications Act No. 36 of 2005 (ECA), the Cybercrimes Act No. 19 of 2020 (Cybercrimes Act) and POPIA.

Table 77 Guidance for banks and insurers

Regulatory and legal policies	<ul style="list-style-type: none"> ■ The South African Reserve Bank published Financial Services – Outsourcing Guidance specifically for banks. It obliges banks to put suitable risk management programmes in place for service providers to which functions have been outsourced. It also makes all outsourcing arrangements that involve material business activities subject to appropriate due diligence, approval and monitoring by the bank. ■ The regulators of long-term and short-term insurance, which deals with outsourcing an insurer's business, issued the Insurance Services – Insurance Outsourcing Directive. This directive says: <ul style="list-style-type: none"> – Insurers can only outsource insurance business functions if they comply with certain principles – Insurers must avoid, and where this is not possible, mitigate, any conflicts of interest that may arise as a result of the outsourcing – The obligations imposed by the directive are in addition to the those set out in the regulatory framework (for example, requirements relating to a nominee business, binder agreements and assistance business group schemes). ■ IT and cloud services: If both the customer and the suppliers are in South Africa, the provisions of the Broad-Based Black Economic Empowerment Act 2003 will apply. This policy is designed to increase participation by previously disadvantaged South Africans in economic activities. <ul style="list-style-type: none"> – All people, organizations and entities operating in the ICT sector in South Africa are measured in terms of the ICT Code should they wish to comply with the policy. – In accordance with the code, organizations and entities in the ICT sector must achieve an overall black ownership target of 30% (with at least 10% to be held by black women) to accelerate the pace of transformation in the sector.
Labour laws	<ul style="list-style-type: none"> ■ The first national minimum wage has been in effect since 1 January 2019. The legislation stipulates a minimum national rate of 20 rand an hour, or 3,500 rand a month, depending on the number of hours worked.
Visa and immigration policies	<ul style="list-style-type: none"> ■ The business visa allows eligible people to enter South Africa for up to 90 days to work or invest in the economy. ■ The general work visa allows immigrants to enter South Africa for up to five years to fill jobs for which native workers are not available. ■ The critical skills visa allows non-citizens with exceptional skills or qualifications that are scarce in South Africa to live and work in the country for up to five years. ICT is one of the categories covered under this visa.
Cybersecurity and data privacy regulations	<ul style="list-style-type: none"> ■ The Protection of Personal Information Act 2013 regulates the protection of personal data. Some provisions are already in force, and the rest were expected to come into effect in 2020. ■ The current framework relating to cybercrime and cybersecurity in South Africa is a hybrid of different pieces of legislation and the common law. The Electronic Communications and Transactions Act 25 of 2002 regulates most cybercrime offences. ■ New Cybercrime Act⁵⁵⁷ – Active as of 1 December 2021, aims to address cybercrimes offences in South Africa. Key crimes include: <ul style="list-style-type: none"> – Hacking—unlawful access of data – Ransomware—unlawful acts regarding software and hardware – Cyberfraud, extortion and forgery – Malicious data message communications ■ A new policy is in draft stage, the National Data and Cloud Policy, which will drive cloud computing in the country⁵⁵⁸ <p>Other key developments in regulations include:⁵⁵⁹</p> <ul style="list-style-type: none"> ■ Crypto-assets – The country is drafting amendments to several laws, such as the Financial Intelligence Centre Act, the Financial Advisory and Intermediary Services Act and the Financial Markets Act. ■ Africa Central Bank Digital Currency – South Africa conducted a feasibility study to use Africa Central Bank Digital Currency as electronic tender for retail use and as an alternative to cash. The central bank with the Bank for International Settlements, under project Dunbar, have created a prototype system to enable international settlements using the digital currency. Other participants in this project were the central banks of Australia, Malaysia and Singapore.

Trade associations

Table 78 Three key associations work in the tech sector

Agency	Contact
Business Process Enabling South Africa	E-mail: info@bpesa.org.za ; traci@bpesa.org.za Website: www.bpesa.org.za
Information Technology Association of South Africa	E-mail: info@ita.org.za Website: www.ita.org.za
Institute of Information Technology Professionals South Africa	E-mail: info@iitpsa.org.za Website: www.iitpsa.org.za

Growing market segments

High growth in financial services, healthcare and real estate

IT/BPM providers in South Africa serve a range of sectors, including healthcare, banking, insurance, media and broadcasting, telecommunications, energy and utilities, manufacturing, tourism and hospitality. Before deciding to operate or establish in a country, however, providers must identify industry verticals with high growth potential to ensure

that there is demand for their services and safeguard the sustainability and scalability of operations.

After examining the size of South African economic sectors, as well as growth trends, three important market segments were identified: financial services, healthcare and real estate.

Table 79 Three fast-growing sectors show outsourcing potential

Financial services ⁵⁶⁰	
Size of industry: ~ \$390 billion	<ul style="list-style-type: none"> ■ South Africa has the largest banking sector in Africa, with 42 local banking institutions and 30 representative offices of foreign lenders. ■ Five or six major players that together hold more than 90% of the financial service business and assets dominate the sector. However, the advent of fintech companies and technology-based banking alternatives is disrupting the market. ■ South Africa is among world leaders in terms of financial analyst charter holders and actuarial degree holders (almost eight times those of India). ■ Key drivers of growth: <ul style="list-style-type: none"> – Traditional banks are downsizing branches and moving to digital banking as more customers use online and mobile banking services – New digital banks, retail businesses, telecom operators and technology start-ups are collaborating to offer digital and mobile money payments through apps – Growing smartphone penetration (rate is 20%) – Surge in e-commerce activity in South Africa – Government intervention by establishing innovation hubs – Regulatory impact of the payment services initiative
Contribution to GDP: 5%	
Growth rate: 11%	

Healthcare ⁵⁶¹	
Size of industry: ~ \$37 billion	<ul style="list-style-type: none"> ■ As one of the largest economies on the continent, South Africa has prioritized achieving universal health coverage for all citizens. ■ The National Health Insurance Bill and the Medical Schemes Amendment Bill were introduced in June 2018. The Government intends to establish a universal healthcare system by implementing the above-mentioned bills in the future. ■ South Africa spent 9.11% of its GDP on healthcare in 2019. That is 4% higher than the World Health Organization's recommended spending for a country of its socioeconomic status. ■ A total of \$16.4 billion has been allocated for health in the FY2022/23 budget, an increase of 1.1% from 2021. <ul style="list-style-type: none"> – Public-sector healthcare spends: 48% (provides healthcare services to 80% of the population) – Private sector healthcare spends: 50% (provides healthcare services to ~20% of the population) – Non-governmental and other organizations: 2% ■ Three private players (Netcare, Life Healthcare and Mediclinic) together account for more than 80% of market share. ■ The COVID-19 pandemic has accelerated digital adoption in healthcare organizations to ensure preparedness and resilience to future pandemics. ■ Most healthcare providers in South Africa consider the environmental, social and governance framework to be extremely important – especially the latter two pillars. ■ Information technology has transformed the sector and has the potential to enhance the scalability, access, efficiency and tangible benefits of healthcare services to citizens. Following the lead of the global healthcare industry, many digital trends such as internet of things, telemedicine and artificial intelligence are gaining traction in the South African healthcare market. ■ Most healthcare providers in South Africa are confident about their data protection policies and regulations. They believe their cybersecurity infrastructure can protect their patient data against any potential digital fraud.
Contribution to GDP: 9.5%	
Growth rate: 4.7%	
Real estate ⁵⁶²	
Size of industry: > \$9 billion	<ul style="list-style-type: none"> ■ The three key drivers of growth of the real estate sector are:⁵⁶³ <ul style="list-style-type: none"> – First-time buyers drove the housing market in 2020. Second-time home buyers drove the national housing market in 2021. – Homeowners understand real estate property's potential to create wealth and are starting to build property portfolios instead of upgrading to a larger next home. – The trend of working from home, low interest rates and the appeal of more space in case of further lockdowns are a few drivers of the real estate market. ■ Estate purchases were steady in 2021 while the sectional title property grew by 5%. There is a significant influx of investment from overseas developers from countries such as China. ■ Government plays a central role in the real estate sector. Government-provided housing was a key driving factor in the growth of South Africa's affordable housing stock in 2020. More than 30% of houses are government-subsidized, up 30% from 2009. Northern Cape has the highest proportion of government-subsidized housing (~50%).⁵⁶⁴
CAGR: 9% ⁵⁶⁵	
Contribution to GDP: 5%	

Source: Avasant Research

Market access opportunities

Financial services, healthcare and real estate show the most promise

The trends seen in the growing market segments showcase the sectors that are likely to drive demand for IT/BPM services in South Africa: financial services, healthcare and real estate. The following table identifies market access opportunities and potential service areas in these sectors.

Table 80 Three sectors offer different opportunities

Industry	Service area	Description
Financial services	Finance and accounting outsourcing; finance and accounting shared services Insurance Personal finance	<ul style="list-style-type: none"> ■ As of early 2022, the banks managed 4.9 trillion rand in public deposits. About two-thirds of assets are in loans to individuals and firms. Banks are the single largest source of financing for SMEs. There is tremendous opportunity for technology investors in the financial domain.⁵⁶⁶ ■ Changing customer needs and evolving usage behaviour, primarily due to greater smartphone penetration, have triggered new banking institutions providing digitalized services. ■ South Africa is witnessing a wave of digital-only banks that make the sector highly competitive. ■ As more people enter the workforce and are integrated into the banking system, there is a huge opportunity for banking services. ■ Opportunities for IT and business process outsourcing service providers in banking and financial services include: <ul style="list-style-type: none"> – Banking contact centre services – Personalized customer care – Grievance redressal – Credit cards and rewards – Banking business process services ■ General accounting, accounts receivable and accounts payable, invoice processing and help desk <ul style="list-style-type: none"> – Procurement ■ Life insurance services <ul style="list-style-type: none"> – New business capture – Premium collections – Policy administration – Claims processing – Commission handling ■ Fund administration services <ul style="list-style-type: none"> – Investment and portfolio administration – Client reporting ■ Asset management services <ul style="list-style-type: none"> – Fund accounting – Business analysis – Client services

Industry	Service area	Description
Healthcare	Digital health solutions	<p>From a healthcare standpoint, there is a large, underserved population in South Africa. Healthcare is split between the public and private sectors and there is growth potential in both sectors for technology products. The pace of technology adoption varies in both sectors.</p> <p>The opportunities for IT/BPM service providers include:</p> <ul style="list-style-type: none"> ▪ The National Department of Health is preparing to set up a health patient registration system that will connect all healthcare facilities and share patient data. ▪ Owing to the shortage of qualified healthcare professionals, mobile health and telemedicine services are increasingly being leveraged, especially for preventive care. These services require a delivery front end and back end that IT/BPM firms can provide. ▪ There is tremendous opportunity for data management systems to play a central role in optimizing data management. ▪ There has been increased uptake of health services through the effective use of mobile messaging and cash transfer incentives for demand creation. ▪ Demand and potential scope is growing for IT/BPM services such as: <ul style="list-style-type: none"> ▪ Electronic medical records system solutions ▪ Hospital management information system solutions ▪ Health information system solutions ▪ Telemedicine ▪ Insurance registration and claims systems ▪ Mobile health solutions
Real estate	Business process support Customer service Reporting and analytics	<ul style="list-style-type: none"> ▪ The focus today is on streamlining processes and upgrading legacy systems. This presents major opportunities for IT/BPM service providers in the following areas: <ul style="list-style-type: none"> – Real estate accounting and analytics – Geo-demographic data analysis – Valuation services – Billing and reimbursement processing – Real estate listing, registration and cataloguing services

Source: Avasant Research

United Republic of Tanzania

Highly competitive labour costs
and a large economy are central to
developing the IT/BPM landscape of
the United Republic of Tanzania



UNITED REPUBLIC OF TANZANIA

Macroeconomic and country data



Capital: **Dodoma**

GGDP (Constant 2015 prices at market price) 2021: \$64.16 billion

GDP per capita (2021): \$1,040

Real GDP growth rate (2021): 5.1%

Inflation rate (July 2022): 4.5%

Population (2021): 61.5 million

- 0–14 years: 43.3%
- 15–24 years: 19.7%

Population growth rate: 2.95%

Major business sectors: agriculture, mining, manufacturing, natural gas, tourism

Unemployment rate (2021): 2.6%

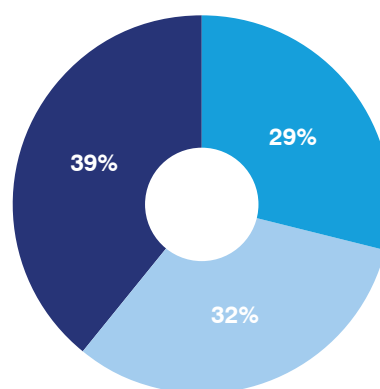
Literacy rate: 78%

Urbanization (2021): 36%

Major trade and industry associations:

- The Tanzania Chamber of Commerce, Industry and Agriculture
- Confederation of Tanzania Industries
- Tanzania ICT Enhancement Association

GDP composition



■ Agriculture ■ Industry ■ Services

Key facts

Currency: Tanzanian shilling (TZS)

Exchange rate (per \$): TZS 2,455 (August 2023)

Foreign direct investment inflow: \$4.14 billion (March – November 2021; 300% growth YoY)

Major languages: Kiswahili and English

Major religions: Christianity, Islam

Major exports: Gold, coffee, tobacco, cashew nuts

Country highlights

The economy relies on agriculture, which accounts for 29% of GDP and employs 65% of the labour force. About 40% of Tanzanian exports are gold, followed by coconuts, Brazil nuts, cashews, raw copper, precious metal ore and dried legumes (combined 22%).

The financial sector is snowballing, with 41 commercial banks and seven mobile money service players. About 65% of the population has access to formal financial services and products. In 2021, 52% of adults had an active bank account.

Seven companies dominate the sector: Airtel, Smart, Halotel, Tigo, TTCL, Vodacom and Zantel. Mobile subscriptions reached 51 million in 2021.

Sources: World Bank (unemployment, urban population, GDP, GDP per capita, real GDP growth, inflation), OEC, National Sample Census of Agriculture 2019/20 Tanzania, Global Findex Database 2021, Statistics Times (population statistics), Avasant Research

Government incentives and policies for IT/BPM

Development Vision 2025 targets the technology sector

One of the objectives of Development Vision 2025 is upgrading the Tanzanian tech sector. The plan’s key initiatives include developing skills, building capability and creating a knowledge society in the country.

Incentives supporting business development⁵⁶⁷

- Project capital goods are exempt from import duty and VAT
- Capital goods such as equipment, building materials and utility vehicles are exempt from 75% of import duties
- Automatic immigration quota, protection against non-commercial risks and nationalization
- Exemption from corporate tax, withholding tax on rent, dividends and interest for 10 years in export processing zones

Digital Tanzania⁵⁶⁸

The Digital Tanzania project aims to boost government and citizen access to high-quality internet services in a few places and to strengthen the ability of the Government to provide digital public services. The project has two phases:

- Phase 1 (2018–2022): This phase will focus on increasing market competitiveness and investment to strengthen ICT processes and services in the country.
- Phase 2 (2021–2026): This phase will focus on encouraging the public and private sectors to use technology in their everyday processes to grow the country’s digital economy.

Digital services tax⁵⁶⁹

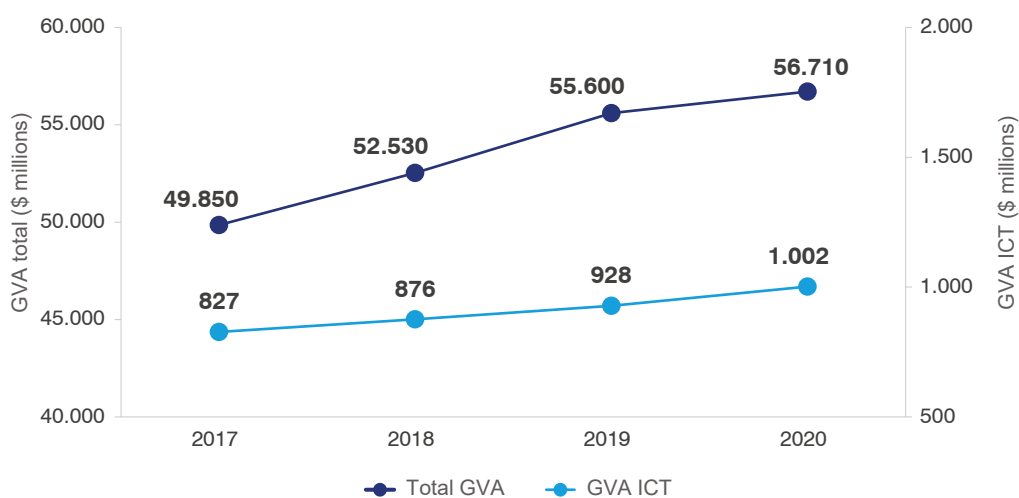
- 2% tax on the revenues of non-resident digital platforms
- 18% VAT on digital platforms and smartphones

Information and communications technology landscape

The technology sector is growing rapidly

The United Republic of Tanzania has a small ICT sector that contributed 2% to GDP in 2020 and was worth an estimated \$1 billion⁵⁷⁰ that year. ICT has been one of the fastest-growing sectors in the country, expanding by 8.4% in 2019–2020.

Figure 27 Tanzanian ICT sector is growing steadily



5%

Contribution to GDP (2019)

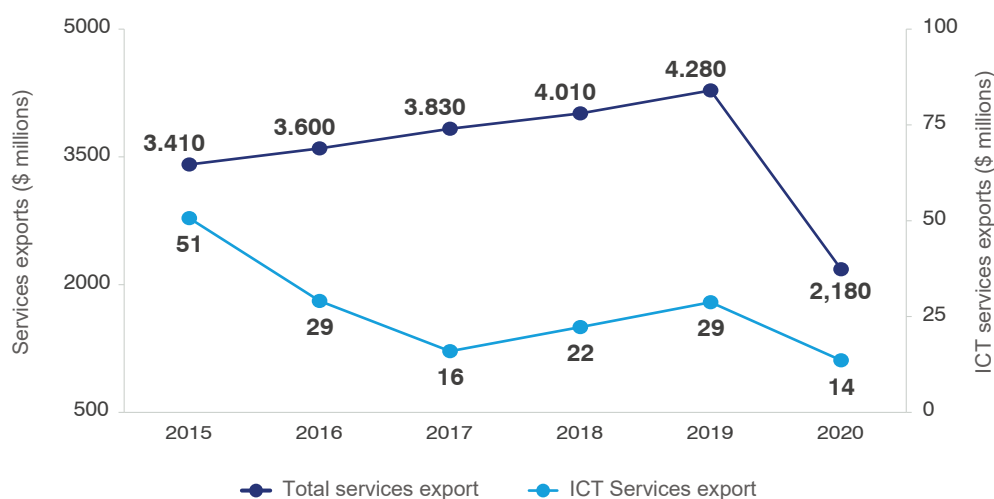
+8%

ICT sector revenue growth (2016–2019)

Source: National Bureau of Statistics Tanzania

The country exported \$13.6 million in ICT services (a key measure of IT/BPM services) in 2020,⁵⁷¹ accounting for 0.6%⁵⁷² of total service exports.

Figure 28 ICT service exports have been fluctuating since 2015



Source: World Bank ([services exports](#), [ICT services exports](#))

The IT/BPM sector appears to have a promising future due to several factors:⁵⁷³

- **April 2022** – With a contract worth \$4.59 million signed with the National Information Communication and Technology Broadband Backbone, Vodacom Tanzania will use the Tanzanian fibre-optic network to improve connectivity in rural areas. Following an initial investment of \$6.22 million in October 2021, the project is expected to allow more people in rural areas to access digital services such as health, education and agricultural programmes, and advance financial inclusion on a national level.
- **June 2021** – The World Bank approved the Digital Tanzania project with financing of \$150 million from the International Development Association. The initiative intends to boost government, corporate and citizen access to high-quality broadband internet services and enhance the Government's ability to provide digital public services.
- **April 2021** – Madagascar-based Axian Group announced plans to invest \$500 million in the United Republic of Tanzania.
- **March 2022** – Tanzania Telecommunication Corporation and Huawei signed a memorandum of understanding for the development and growth of fixed and mobile networks in rural areas and the deployment of fibre-to-the-home and fixed wireless 4G services.
- **October 2020** – Vodacom Tanzania invested \$32 million to expand 3G and 4G networks in the country. By 2025, Vodacom plans to increase mobile data coverage to 90% of the population.



Why is the Tanzanian tech sector appealing?

Attractiveness factors



Favourable time zone

A difference of 2–3 hours with the United Kingdom and most European countries



Young workforce

with more than 21 million people between 15 and 34 years of age⁵⁷⁴



Competitive labour costs

with an average monthly wage of \$300⁵⁷⁵

Main highlights
<p>Market size: ~ \$1 billion⁵⁷⁶</p>
<p>Average salary (monthly): ~ \$290–\$1,250⁵⁷⁷</p>
<p>Main IT/BPM service offerings: Inbound customer service, inbound dealer help desk, outbound sales, back office, interactive voice response deployment/management, data cleanup, IT support, enterprise resource planning</p>
<p>Key industries served: Government, telecommunications, financial services, media, logistics</p>
<p>Examples of buyers:</p> <div style="display: flex; justify-content: space-around; align-items: center;">     </div> <div style="display: flex; justify-content: space-around; align-items: center; margin-top: 10px;">    </div>
<p>Key IT/BPM associations and agencies:</p> <ul style="list-style-type: none"> ▪ Tanzania Communications Regulatory Authority ▪ Tanzania ICT Enhancement Association

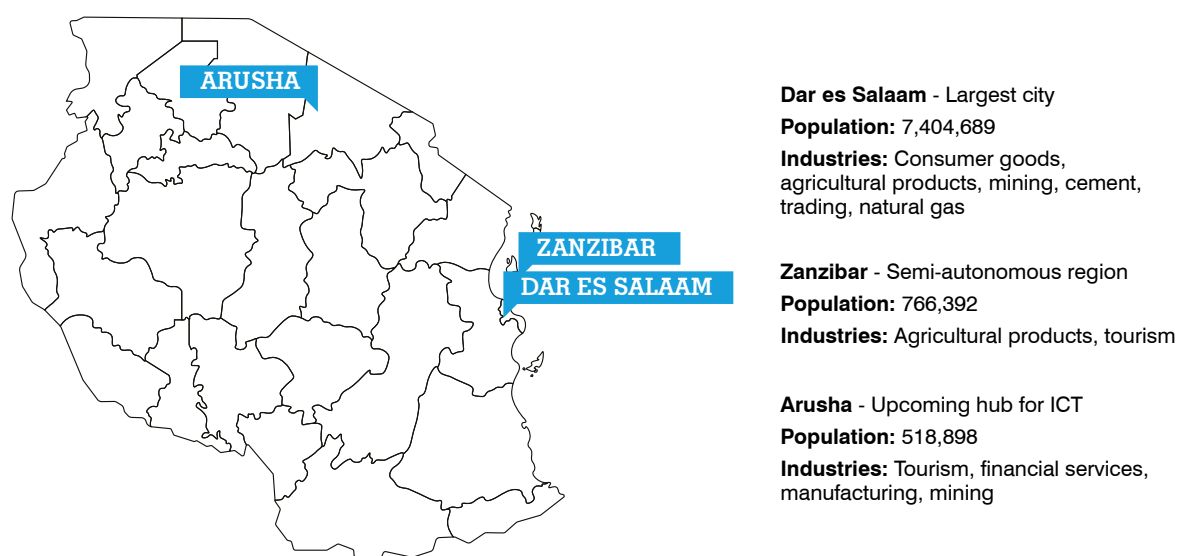
Source: Avasant Research

Key cities and technology centres

Dar es Salaam is the main technology centre

The small Tanzanian IT/BPM sector is primarily active in Dar es Salaam, the biggest city in the country, with a population of 7.4 million.⁵⁷⁸

Figure 29 Dar es Salaam, Zanzibar and Arusha are the primary ICT hubs



Source: Avasant Research

Table 81 Six hubs, tech parks and start-ups are based in Dar es Salaam

City	ICT hubs/ tech parks/ start-up hubs
Dar es Salaam	<ul style="list-style-type: none"> ▪ Buni Innovation Hub ▪ Ndoto Hub ▪ Seedspace ▪ SafeSpaceTZ ▪ SaharaSparks ▪ Ennovate Ventures
Zanzibar	<ul style="list-style-type: none"> ▪ Zanzibar Technology Business Incubator
Arusha	<ul style="list-style-type: none"> ▪ Twende Makerspace






Source: Avasant Research

The state of competition: Understanding the landscape

Local businesses can choose from several providers

The Tanzanian IT/BPM industry is relatively small, with just a few providers offering services to local businesses. The primary services offered and industries served by some of these providers are shown below. International players are highlighted in blue.

Table 82 Providers offer a range of services

Service provider	Headcount / Location	Examples of services offered	Industries served
 Techno Brain Group	100+ / Dar es Salaam	IT services, business process outsourcing, software solutions	Government, banking, financial services and insurance, manufacturing, utilities, logistics, mining
 iSON Xperiences	1,300+/ Dar es Salaam	Inbound customer service, inbound dealer help desk, outbound sales, back office, interactive voice response deployment/ management, showroom staff deployment and management services, social media care, electronic know-your-customer process, data cleanup	Telecommunications, media
 PCCI Group	Dar es Salaam	Business process services	Telecommunications
 ICTPack	50+/ Dar es Salaam	IT support and consulting, cloud and web hosting, content management systems, digital marketing	Government, banking and financial services, logistics, NGOs
 CATS Tanzania	200+/ Dar es Salaam	IT consulting, infrastructure services, IT security	Government, banking and financial services, telecommunication, education, hospitality, manufacturing
SourceNets	50+/ Dar es Salaam	Web development, IT security, mobile applications, enterprise resource planning systems, payment solutions	Retail, human resources

Source: Avasant Research

Service capacity and capability

The population is young and educated

The United Republic of Tanzania was ranked 157th of 163 countries in the World Bank 2019 Human Capital Index. In the 2020 HCI update, the country scored 0.39 on a scale of 0–1.⁵⁷⁹ The country has a very young and educated population, with a median age of 18 years⁵⁸⁰ and a literacy rate of 78%.⁵⁸¹ More than half of the population is rural

(64%). This positions the country as a potential destination for IT/BPM services.

The table below examines the talent availability and capability for the IT/BPM sector as well as its scalability prospects and opportunities.

Table 83 Tech sector can draw from a large pool of new graduates

Talent and skill availability	
No. of universities: 34 ⁵⁸²	The Tanzania Commission for Universities has accredited 34 universities in the country. With roughly 63,000 graduates entering the job market annually, potential IT/BPM professionals can be consistently drawn from the large graduate pool. The United Republic of Tanzania has a relatively low number of ICT graduates. Around 5,000 ICT workers enter the workforce each year. This falls short of the staffing needed to support the ICT industry. The Government is trying to address this by launching incubators and innovation hubs that support the development of the digital innovation ecosystem. The country hopes to build a centre of excellence for ICT professional development to reskill and upskill its ICT workforce. ⁵⁸³
Annual tertiary graduates: ~ 63,000 ⁵⁸⁴	
Youth unemployment (2021): 4.6% ⁵⁸⁵	
Tertiary, gross enrolment ratio (2020): 7.8% ⁵⁸⁶	
Secondary gross enrolment ratio (2021): 31% ⁵⁸⁷	
Quality and employability of talent ⁵⁸⁸	
Quality of vocational training: Ranks 71st of 141 countries ⁵⁸⁹	Based on the World Economic Forum Global Competitiveness Index, 2019, ⁵⁹⁰ the quality of the Tanzanian education system is average. The country performs average in terms of the skill set of graduates, ranking 75 th based on the extent to which graduating university students have the skills needed by businesses. It secured a higher ranking (61) on the ability of companies to find people with the skills required to fill vacancies, i.e. the ease of finding skilled employees. This rating can be attributed to the availability of college graduates in the country, coupled with moderately high levels of unemployment and underemployment. These factors enable skilled employees to search for better job opportunities. In terms of adult literacy, the United Republic of Tanzania ranks ahead of many countries competing for a share of the offshore services market, with youth literacy at 85.7% and adult literacy at 77.8%.
The skill set of graduates: Ranks 75th of 141 countries ⁵⁹¹	
Labour force with advanced education (2020): 30% ⁵⁹²	
Ease of finding skilled employees: Ranks 61st of 141 countries ⁵⁹³	
Digital skills in active population: Ranks 90th of 141 countries ⁵⁹⁴	
Literacy <ul style="list-style-type: none"> ■ Youth literacy: 85.7%⁵⁹⁵ ■ Adult literacy: 77.8%⁵⁹⁶ 	
Language proficiency: Medium English-speaking capability	
Scalability	
The large pool of tertiary graduates means there is potential for IT/BPM operations to scale. However, adequate training mechanisms are needed to supplement the skills of these graduates so they can perform effectively in the industry.	

ICT infrastructure

Improvement is needed

There are 86 mobile handsets per 100 people in the United Republic of Tanzania.⁵⁹⁷ The infrastructure to support ICT has improved over the years, and the Government has facilitated the growth through its policies and investment. However, few businesses and individuals go online because of high internet costs.

Table 84 Few Tanzanians have fixed telephone subscriptions

Telecom ⁵⁹⁸
<ul style="list-style-type: none"> ▪ Fixed telephone subscriptions (per 100 people) – 0.2 ▪ Mobile cellular subscriptions (per 100 people) – 86
<p>As in most sub-Saharan African countries and other developing economies, there are far more mobile service subscriptions than fixed telephone subscriptions in the United Republic of Tanzania. This is due mainly to prohibitive costs and less developed fixed-line infrastructure.</p>
Broadband/bandwidth
<ul style="list-style-type: none"> ▪ Fixed broadband subscriptions (per 100 people) – 1.9⁵⁹⁹ ▪ Active mobile broadband subscriptions (per 100 people) – 9.80⁶⁰⁰ ▪ People using the internet (% of the population) – 22%⁶⁰¹ ▪ International internet bandwidth per internet user (kilobits per second) – 1.45k⁶⁰² ▪ % Households with internet access – 4.1%
<p>Fixed broadband penetration is also low, at 1.9 per 100 people. The broadband infrastructure has improved, as access to international subsea fibre-optic cables means lower internet costs.</p> <p>In terms of the cost of mobile data, the United Republic of Tanzania ranks 50th of 230 countries on mobile data affordability. The average price of 1 gigabyte of data in the country is \$0.71 on a 30-day plan.⁶⁰³</p>
Power ⁶⁰⁴
<ul style="list-style-type: none"> ▪ Electric power consumption (kWh per capita) – 108 ▪ Generation capacity <ul style="list-style-type: none"> – Installed capacity – 1,764 MW ▪ Connections <ul style="list-style-type: none"> – Current access rate – 37% – Urban – 73% – Rural – 18%
<p>The Government has set a goal of increasing generation capacity to 10,000 MW by 2025 by attracting private investments in the sector. However, the state of electricity may hinder efforts to attract IT/BPM companies and investments because the industry depends on a stable and reliable electricity supply. Peak electricity demand is expected to nearly double to 4,000 MW by 2025. The country aims to reach installed capacity of 10 GW by 2025 to meet this demand and to nearly quadruple its electrification rates to 75% by 2033.⁶⁰⁵</p>
<p>Cost of electricity⁶⁰⁶</p>

Business registrations

Business registration procedure
<ul style="list-style-type: none"> ▪ Apply for clearance of the proposed business name ▪ Get a notarized compliance declaration ▪ Apply for business incorporation and get the certificate of incorporation ▪ Apply for a taxpayer identification number from Tanzania Revenue Authority ▪ Apply for a business licence at the Ministry of Industry and Trade ▪ Apply for a VAT certificate from Tanzania Revenue Authority ▪ Register for employee compensation insurance ▪ Get social security registration numbers from all mandatory social security schemes

Source: Avasant Research

The focus of technology policy

The Tanzania Communications Regulatory Authority regulates the ICT sector. The following regulatory and compliance policies govern the IT/BPM sector.

Table 85 Minimum wages have been set for all workers

Labour laws (Labour Employment and Labour Relations Act 2004)⁶⁰⁷	<ul style="list-style-type: none"> ▪ The Ministry of Labour and Employment has fixed minimum wages for unskilled, semi-skilled and skilled workers across occupations. ▪ The ministry has also defined laws governing termination of employment, resignation, leave days, maximum working hours and maternity leave.
Visa and immigration policies⁶⁰⁸	<ul style="list-style-type: none"> ▪ Business visas are available for executives and investors travelling to the country for business meetings/discussions and short-term assignments (Fee: \$50). ▪ Visas can be obtained from any Tanzanian embassy abroad. They are valid for a 90-day stay (not for employment) and are extendable. <p>Type of visa:</p> <ul style="list-style-type: none"> ▪ Ordinary – Valid up to 90 days for single entry ▪ Business – Valid up to 90 days for business purposes ▪ Multi-entry – Issued to U.S. nationals only (bilateral agreements between United Republic of Tanzania and the United States) ▪ Transit – Issued to visitors travelling for seven days to another location outside the United Republic of Tanzania ▪ Gratis – Issued to a holder of a diplomatic, official, service or travel document from an internationally recognized organization ▪ Student – Given to a foreign national entering the country for academic purposes
Cybersecurity and data privacy regulations⁶⁰⁹	<p>Cybercrime is covered under the following:</p> <ul style="list-style-type: none"> ▪ Cybercrimes Act 2015 has provisions for criminalizing offences involving ICT and computer systems. ▪ The Electronic and Postal Communications (Online Content) Regulations, 2020, were established to police those who offer online material, provide internet services and licence application services, and access online content.

Source: Avasant Research

Growing market segments

Telecoms, trade and retail are fast-growing industries

The IT/BPM sector is an enabling sector for other vertical markets. It serves various sectors, including banking and financial services, insurance, telecommunications, automobile, retail, fast-moving consumer goods, e-commerce, agriculture, tourism and government.

The telecommunication, trade and retail industries have enormous potential to generate demand for IT/BPM services in the United Republic of Tanzania. The main factors considered are each sector's size and year-on-year growth, including expected growth, growth drivers, market trends and IT/BPM trends.

Table 86 Telecom and retail sectors are growing rapidly

Telecommunications ⁶¹⁰	
Size of the industry: ~ \$859 million	<ul style="list-style-type: none"> ■ Telecommunications is one of the fastest-growing sectors in the country. ■ The sector is one of the biggest domestic buyers of IT/BPM services. ■ Seven companies are active in the telecom sector, meaning it is competitive. ■ International players such as iSON have signed business process outsourcing deals with telecom companies in the United Republic of Tanzania.
Contribution to GDP: 1.9%	
Growth rate: 28%	
Healthcare (eHealth) ⁶¹¹	
Projected market volume in 2022: ~ \$18.63 billion ⁶¹²	<ul style="list-style-type: none"> ■ Most revenue is generated in China.⁶¹³ ■ The healthcare sector is growing steadily and has the potential to generate massive demand for IT/BPM solutions and services.
CAGR: 14% (2022–2027)	
Average revenue per user: \$17	

Source: Avasant Research

Market access opportunities

Telecommunication and retail sectors likely to drive demand

The trends in the growing market segments showcase the sectors likely to drive demand for IT/BPM services in the United Republic of Tanzania: telecommunications and retail. The two industries offer different opportunities.

Table 87 Telecom sector will help spur innovation

Industry	Service area	Description
Telecommunications	Customer service Back office Showroom staff deployment End-user devices support Managed IT	<ul style="list-style-type: none"> ■ The telecom sector is one of the biggest domestic buyers of IT/BPM support services. ■ The seven companies in this sector are highly competitive, which drives demand for better customer service. That, in turn, drives demand for innovative IT/BPM solutions. ■ Mobile money has been a game changer across Africa, helping to provide financial access to the population. Mobile money operations also boost demand for IT.
Healthcare	eHealth ⁶¹⁴	<p>The Government recognizes the need to integrate ICT into the healthcare system. Several worldwide examples of ICT use in the healthcare sector influenced the Tanzanian eHealth strategy. Examples include:</p> <ul style="list-style-type: none"> ■ Monitoring epidemics with unstructured supplementary service data and web-based mobile applications ■ Using two-way communication and image sharing in telehealth to increase access to speciality medical care ■ Using smartphones to take photographs of blood samples ■ Measuring medication resistance with mobile devices ■ Using online education to advance the careers of health professionals

Source: Avasant Research

Uganda

Upgrades to ICT infrastructure and a more conducive business environment would enable Uganda to establish itself as a premier tech hub in the region



UGANDA

Macroeconomic and country data



Capital: **Kampala**

GDP 2021 (constant 2015 \$): \$42.21 billion

GDP per capita 2021 (constant 2015 \$): \$921

Annual GDP growth rate (2021): 3.4%

Inflation rate (2021): 3.8%

Population (2022): 47.2 million

- 0–14 years: 46%
- 15–24 years: 21%

Population growth rate: 3.19%

Major business sectors: agriculture, manufacturing, construction, telecoms and tourism

Unemployment rate: 2.9%

Literacy rate: 77%

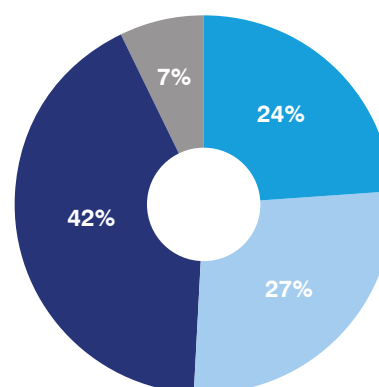
Urbanization: 26%

Major trade and industry associations:

- The Ministry of ICT & National Guidance
- National Information Technology Authority-Uganda
- ICT Association of Uganda
- Ministry of Trade, Industries and Cooperatives

Sources: World Bank (GDP, GDP per capita, population, unemployment rate, literacy rate, urbanization), World Investment Report – UNCTAD (FDI), OEC (trade statistics), Avasant Research

GDP composition (2021)



■ Agriculture ■ Industry ■ Services ■ Others

Key facts

Currency: Ugandan shilling (UGX)

Exchange rate (per \$): UGX 3,617 (August 2023)

Foreign direct investment inflow (2021): \$1.14 billion

Major languages: English, Kiswahili, Luganda

Major religions: Christianity, Islam

Major exports: Agricultural products (coffee, cotton, spices, tea and fish), precious metals and gems, mineral fuels including oil

Country highlights

Uganda, known as the pearl of Africa because of its beautiful vegetation, landscape and wildlife, is a landlocked country in East Africa. Its 47.2 million inhabitants occupy 241,038 square kilometres.

In 2021, the main exports were gold (\$3.47 billion), coffee (\$539 million), cocoa beans (\$101 million), raw sugar (\$71.2 million) and tea (\$69 million). The agriculture sector employs about 72% of the labour force.

Driven by household consumption and investment, the economy grew 5.5% in 2021 after shrinking 1.5% in 2020.

The retail, construction and telecommunication sectors are key drivers of economic growth in Uganda.

Government incentives and policies for IT/BPM

Several incentives and policies, outlined below, govern the establishment and activities of technology businesses in Uganda.

Business development incentives⁶¹⁵

- Exemption from taxes and duties on all export processing zone imported inputs that are exclusively for use in the development and production output of the business.
- Capital markets are open to foreign investors and there are no restrictions for foreign investors to open a bank account in Uganda.
- 100% of training costs are deductible on a one-time basis.
- Unrestricted remittance of profit after tax.
- Exemption on personal income of a person offering technical assistance under a technical assistance agreement.
- Timely turnaround for work permit processing.
- A range of annual VAT exemptions, deductions and deferrals.
- Service providers in an industrial park or free zone that invest in IT are exempt from tax obligations subject to the following conditions:⁶¹⁶
 - Developers and operators in industrial parks or free zones are exempt from income taxes for 10 years. Income from renting out or leasing facilities is tax-exempt, subject to the following conditions:
 - Minimum capital investment of \$10 million by foreign investors
 - Minimum capital investment of \$300,000 by Uganda citizens
 - Minimum capital investment of \$150,000 for Ugandan citizens whose investment is located in the country is excluded from taxation
 - Incentives are effective from the commencement date of ICT services
 - The investor must commit to a minimum of 70% raw materials sourced locally and ensure 70% employment reservation for East African Community citizens accounting for at least 70% of the wage bill.

Source: Avasant Research



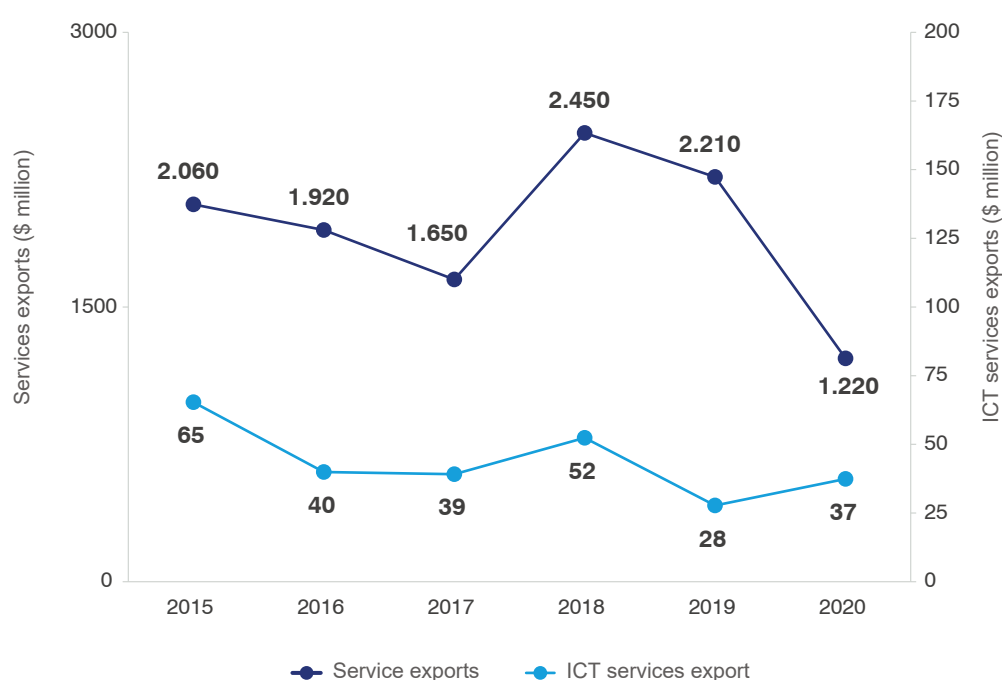
Information and communications technology landscape

Tech sector hopes to become a major regional hub

An expanding service economy, a growing young and educated population, improving ICT infrastructure, declining internet prices and improving bandwidth make Uganda an attractive destination for IT/BPM companies. However, the

country is yet to capitalize on its demographic dividend. Uganda exported \$37 million in ICT services in 2020, a 41% decline from 2018.⁶¹⁷ ICT services represented 3% of all services exported from the country in 2020.

Figure 30 ICT service exports have seen marginally better growth compared to services exports



Source: World Bank (Total services exports, ICT services exports)

Uganda's liberal financial system, pro-business laws and regulations, free market economy, low labour cost and

a very well-balanced government budget invite foreign investors to be part of the country's growth story.

Key recent developments

Improvement in fibre-optic infrastructure

The National Information Technology Authority-Uganda has laid more than 3,000 km of fibre-optic cable to improve the country's connectivity to the world. Google has laid upwards of 1,000 km of fibre-optic cable in the Kampala metro area since 2015 while Facebook, in partnership with Airtel Uganda, has laid over 800 km, primarily in the northern town of Gulu. MTN Uganda has also laid about 6,000 km of fibre-optic cable across Uganda.⁶¹⁸

Private sector building data centres in Uganda

Growth in internet availability has accelerated demand for local data services including data security and streamlined content delivery. Tier-rated data centres have recently developed in Uganda and so far, the country has one Tier III data centre. Raxio, with head offices in Dubai and New York, opened a Tier III data centre in Kampala Industrial and Business Park in May 2021, investing \$15 million.

Reduction in data prices

The cost of commercial internet (25 Mbps+ per month) service dropped from an average of \$300 in 2017 to \$40 in July 2022. The Government scrapped the \$0.05 daily 'over the top' tax in July 2021 due to collection inefficiencies, replacing it with a 12% excise duty on each internet data service purchase.⁶¹⁹

Development of start-up ecosystem

Uganda is very keen to develop a vibrant start-up ecosystem. Kampala-based fintech Numida was the first start-up to get into Y Combinator's Winter 22 accelerator programme in 2021. The Google Africa Investment Fund was launched in October 2021, targeting early and growth-stage start-ups across the continent.

The number of Ugandan start-ups in sectors such as fintech, healthcare (e-health), e-commerce, cleantech and e-mobility is rising. Multiservice application-based service providers such as Uber and Bolt are highly active in the motorcycle-ride hailing and delivery market.⁶²⁰

The country was one of the top 15 nations on the African subcontinent to receive notable equity funding in 2021. Uganda received \$19 million in equity funding and \$22 million in debt funding that year.⁶²¹ It ranks 119 among 132 global economies on Global Innovation Index 2022.⁶²²

Establishment of ICT tech parks

The Government is building an IT/BPO tech park on a 17-acre piece of land near Entebbe airport. The tech park is to be built in a public-private partnership mode.

Uganda has four government-owned industrial parks in the Kampala-Mukono region: the Kampala Industrial and Business Park, Namanve Industrial Park, Luzira Industrial Park and Bweyogerere Industrial Park. The Uganda Investment Authority plans to develop 22 industrial parks across the country. In 2017, the authority approved an industrial park in Bulisa and four regional science and technology industrial parks.⁶²³

Why is the Ugandan technology sector appealing?

Attractiveness factors



Favourable time zone

A difference of 1–3 hours with the United Kingdom and most European countries



Young workforce,

with more than 70% of the population aged 24 years and under⁶²⁴



Native English talent

Uganda boasts a native English-speaking workforce



Competitive labour costs,

with an average monthly wage of ~\$300



Strong government focus

on ICT development illustrated by the Ministry of ICT & National Guidance launching Uganda's campaign to position itself as Africa's innovation powerhouse in 2022

Main highlights

ICT service exports (2020): ~ \$37 million⁶²⁵

Average monthly wage:⁶²⁶ \$230–\$ 1,000

Main IT/BPM service offerings: Inbound customer service, inbound dealer help desk, outbound sales, back office, data cleanup, IT support and interactive voice response deployment/management

Key industries served: Government, telecoms, agriculture, manufacturing, financial services and NGOs

Primary markets served: Kenya, Rwanda, Democratic Republic of the Congo, South Sudan and United Arab Emirates

Key IT/BPM associations and agencies:

- Ministry of ICT and National Guidance
- National Information Technology Authority-Uganda
- ICT Association of Uganda
- Alliance for Trade in Information Technology and Services

Source: Avasant Research

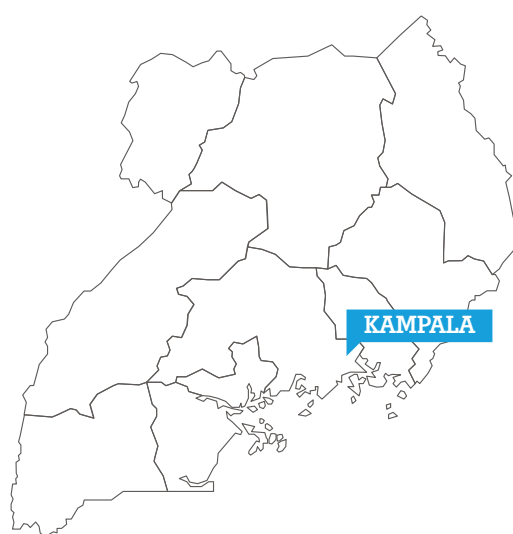
Key cities and technology centres

Technology epicentre is the capital

Kampala is the largest city in Uganda and its economic epicentre. About 3.7 million people live in the capital and its urban conglomerate. Other notable cities include Gulu, with 146,858 people, and Lira, with 119,323 people.

The country has more than 20 tech hubs, business incubators and accelerators, most of which are in Kampala. Kampala is among Africa's top 15 main tech cities, according to the Global System for Mobile Communications Association.⁶²⁷

Figure 31 Kampala is top city



Kampala - Largest city and the economic epicenter of Uganda

Population: 3.7 million

Industries: Finance, retail, manufacturing, infrastructure, government

Source: Avasant Research

Table 88 Tech hubs and accelerators are in Kampala

City	ICT hubs/tech parks/start-up hubs	
Kampala	<ul style="list-style-type: none"> ■ Design Hub ■ Hive Colab ■ Imuka Ventures ■ The Innovation village ■ Amara Hub 	<ul style="list-style-type: none"> ■ Outbox hub ■ TechBuzz Hub ■ Tribe Kampala ■ StartHub ■ Makerere Innovation and Incubation Center

Source: Avasant Research

The state of competition: Understanding the landscape

Opportunities to become a premier destination

The Ugandan IT/BPM sector is an established market and home to regional and international BPM companies. Almost 30,000 students graduate from Uganda universities annually. They are fluent in English and grasp the ICT skills needed for the BPM sector. More than 70% of the Ugandan population in the age group of 15–24 is highly educated.⁶²⁸

Government priorities

The Ministry of ICT & National Guidance, the premier government agency tasked to develop the ICT sector in Uganda, set out an eight-point priority list in 2020–2021.⁶²⁹

1. Ensure digital inclusion by improving ICT infrastructure across the whole of Uganda.
2. Build model incubation centres and hubs to drive local innovation and content creation, promoting Uganda at a regional level.
3. Improve ICT services absorption by Ugandan citizens by integrating e-government systems and services.
4. Create more jobs through ICT innovation and research, especially for youth.
5. Enhance information security systems, making them resilient to cybersecurity threats.
6. Promote ICT device manufacturing and assembling in Uganda.
7. Adopt a national postcode and address system to improve public access to security and other government services and reduce the cost of private-sector services such as utilities, banking, e-commerce, medical and transport.
8. Set up a second internet exchange point to increase e-government services' usage and reduce critical ICT infrastructure latency.

Government programmes such as Uganda Vision 2040 and the ICT Sector Strategic and Investment Plan will aid the sector's expansion. These measures will boost access to technology, improve the sector's GDP contribution and provide access to high-speed broadband services at an affordable price.

The transition towards a service-based economy, along with the developments and improvements that come because of the transition, will continue to be a major catalyst in the growth and development of the IT/BPM sector. A mix of small, medium-sized and large IT/BPM firms serve local and international clients in Uganda.

Service provider landscape

- **The key location** of IT/BPM services is Kampala. Most organizations are based in the city, which also houses the majority of technology hubs and IT/BPM companies in Uganda.
- **A mix of local, regional and global players operate in the sector.** Uganda is home to global players including Techno Brain and iSON as well as regional and local players such as Service Corps, BDE Consult and Exquisite Solution.
- **There are few 'pure' players in the market.** Most enterprises offer a wide range of services encompassing business process services, IT-enabled services, application development and management, business training, social media management, logistics support services and equipment supply.
- **The Government is trying to build an ecosystem conducive to the sector's growth.** The National Information Technology Authority plays a leading role in building outsourcing awareness in the local market. Two investment projects are open to potential investors:⁶³⁰
 - **IT/BPO park in Entebbe:** The Government has allocated a 17-acre parcel of land to develop a BPO park. This project has an estimated cost of \$42.8 million.
 - **Science, technology and innovation park to be developed 20 km from city centre:** This incubation centre aims to bring academics, innovators and ICT entrepreneurs (local and global) together under one roof. The project includes science, technology and innovation centres, industrial commercial indigenous innovation rollouts and academic excellence in residential dwelling. The project is estimated to cost \$1.5 billion.

Table 89 Providers offer a range of services

Service provider	Headcount / Location	Examples of services offered	Industries served
Acreaty Uganda 	Kampala	<ul style="list-style-type: none"> ■ Outsourcing services – business process and knowledge process outsourcing, and data process outsourcing ■ Human resources and staff services – recruitment services, payroll and accounting, staff outsourcing, training ■ Business consulting – supply chain and marketing support ■ IT enabled services – web development, digital marketing ■ Career advisory services – skills development, resume writing 	Sector-agnostic
Service Cops 	Kampala	<ul style="list-style-type: none"> ■ Payment platforms ■ Mobile banking ■ Mobile payments ■ Integration ■ Mobile applications ■ Anti-money laundering systems ■ Bespoke it solutions ■ Telesales/outbound ■ Omnichannel contact centre solutions – voice, chat, web, text and social media management ■ Online and offline data entry services 	Banking and finance, education
Cameo Techedge Services Limited 	Kampala	<ul style="list-style-type: none"> ■ Advertising and market research ■ Business and management consultancy ■ Computer programming and software development ■ Data processing and web hosting ■ Transaction processing ■ Contact centre – IT support, help desk, voice, data, medical transcription coding, billing 	N/A
Bde Consult Ltd 	11+ / Kira	<ul style="list-style-type: none"> ■ Data/knowledge management (back- office processes) – data collection, research and analysis, data entry, translations, administrative support, proofreading, surveys/ customer feedback, evaluations ■ Contact centre (front office processes) – enquiries (e-mail, web and phone), social media account management 	Government, non-profit, maritime, logistics, transport
MIDAS BPO Uganda Ltd 	Kampala	<ul style="list-style-type: none"> ■ Software development ■ Data management ■ Call centre operations ■ Client engagement ■ Procurement ■ Research ■ Web development 	N/A
Exquisite Solution Ltd 	280+ / Kampala	<ul style="list-style-type: none"> ■ Big data and business intelligence ■ Business process outsourcing ■ Outbound campaigns ■ Data capture and data entry ■ Data processing ■ Image capture ■ Customer billing 	Finance, banking and insurance, telecoms, maritime, logistics and transport

Service provider	Headcount / Location	Examples of services offered	Industries served
Cayman Consults Ltd 	381+ / Kampala	<ul style="list-style-type: none"> Payroll outsourcing including staff sourcing, contracting, on board support, time sheet management and payroll processing Call centre services including inbound and out bound services E-commerce services including mobile phone-based money transfer services, and online shopping and delivery 	Finance, banking and insurance
Data Care Ltd 	35+ / Kampala	<ul style="list-style-type: none"> Mobile services and applications development Web applications Customized software development System integration Website design Big data and business intelligence Business process outsourcing 	Agriculture, environment, healthcare, pharmaceuticals, non-profit
NFT Consult 	39+ / Kampala	<ul style="list-style-type: none"> Mobile services and applications development 	Finance and banking, IT and telecoms, utility and energy, oil and gas
Billbrain Technologies Ltd. 	Kampala	<ul style="list-style-type: none"> Consulting services – IT inspection and analysis, compliance, audits and correlation, infrastructure design and planning, vulnerability assessment and penetration tests Implementation services – site inspection, site readiness, deployment, integration, migration, customization, testing and optimization Managed services – cloud services, IT outsourcing services Support services – 24/7 help desk support, proactive remote monitoring and management, preventative and uptime maintenance (based on a service-legal agreement), problem and resolution management, asset and configuration management (updates and upgrades), time-based reporting and review meetings 	Sector-agnostic
Technobrain Group 	Kampala	<ul style="list-style-type: none"> IT enabled services Business process outsourcing Software solutions 	Financial services, NGOs, government
iSON BPO Uganda 	Kampala	<ul style="list-style-type: none"> Inbound customer service Inbound dealer help desk, Outbound sales Back office Interactive voice response deployment/management Showroom staff deployment and management services Social media care Electronic know-your-customer and data cleanup services 	Telecoms

Service capacity and capability

Labour force is available to service the tech sector

The World Bank 2019 Human Capital Index measures a country's investment in the education and skills of its population. Uganda was ranked 137th of 157 countries.⁶³¹ In the 2020 update of HCI, Uganda scored 0.4 on a scale of 0–1.⁶³²

In 2018, adult literacy was 76.5%⁶³³ and youth literacy (15–24 years) was 89.4%⁶³⁴ – up from 70.2% and 83.7%,

respectively, in 2010. These improvements in education and literacy can be attributed to Uganda's universal primary and secondary education programmes and the high enrolment rate.

The table below examines the talent availability and capability for the IT/BPM sector as well as its scalability prospects and opportunities.

Table 90 Ugandan labour market dynamics

Talent and skill availability	
No. of universities: 47+ ⁶³⁵	Uganda has 12 public universities, 20 private universities and more than 15 institutes and technical colleges. There is an abundance of talent in Uganda. The National Planning Authority reported in 2020 that about 13 million workers are expected to enter the job market by 2030. However, at present, a modest 75,000 jobs are created annually. ⁶³⁶ Uganda has high literacy rates. Adult literacy stands at 76.5% and youth literacy stands at 89.4%. These figures are high, compared to the sub-Saharan African literacy average of 66%.
Youth unemployment: 4.3% ⁶³⁷	
Tertiary gross enrolment ratio: 5.1% ⁶³⁸	
Quality and employability of talent	
Quality of vocational training: Ranks 94th of 141 countries ⁶³⁹	The statistics in this section have been sourced from the WEF 2019 Global Competitiveness Index. ⁶⁴⁰ On a scale of 1 to 7, the scoring assesses how well the education system meets the needs of a competitive economy, with 1 representing not well at all, and 7 extremely well. Uganda ranks 115 ⁶⁴¹ out of 141 in terms of the quality of the skilled labour force and 125 ⁶⁴² of 141 countries on ICT adoption. The country scores 3.4 ⁶⁴³ out of 7 when it comes to sourcing talent with digital skills and 4.4 out of 7 on the ease of finding skilled workers, ⁶⁴⁴ with an impressive rank of 50 th of 141 countries. ⁶⁴⁵ From a sub-Saharan African perspective, these scores are quite good. They indicate that the Ugandan workforce has the skills required to service the IT/BPM sector.
Skill set of graduates: Ranks 122nd of 141 countries ⁶⁴⁶	
Ease of finding skilled employees: Ranks 50th of 141 countries ⁶⁴⁷	
Digital skills in active population: Ranks 121st of 141 countries ⁶⁴⁸	
Literacy <ul style="list-style-type: none"> ▪ Youth literacy: 89.4% ▪ Adult literacy: 76.5% 	
Language proficiency: High	
Scalability ⁶⁴⁹	
From a scalability perspective, Uganda has high potential. The Government continues to invest to improve ICT infrastructure and skills. <ul style="list-style-type: none"> ▪ The National Information Technology Authority and the Uganda Business Process Outsourcing Association regularly hold conferences and exhibitions. ▪ The authority has signed a memorandum of understanding with the National Council of Higher Education and the Ministry of Education and Sports to ensure that ICT is embedded in the national education curriculum and that regulations on education are respected. ▪ The authority is working with Makerere University to train thousands of youths and improve their business process outsourcing skills. 	

Source: Avasant Research

The domestic workforce was about 15.9 million strong in 2020, with 85% working in the informal sector, according to the Uganda Bureau of Statistics. Labour rate underutilization

was estimated at 46% in 2020.⁶⁵⁰ Employers represented 4.3% of total employment in Uganda in 2020. This is much higher than the sub-Saharan African average of 1.6%.⁶⁵¹

ICT infrastructure

Infrastructure is improving, but upgrades are needed

Ugandan ICT infrastructure is still developing. The country ranks 125th of 141 countries for ICT adoption on the WEF Global Competitive Index 2019.⁶⁵²

The GSMA Mobile Connectivity 2021 Index analyses country performance according to infrastructure, affordability, consumer readiness and content availability. Uganda's ICT infrastructure is deemed emerging, with a score of 47.4 out of 100.⁶⁵³ The Government and mobile operators have invested heavily to upgrade the ICT infrastructure.

- The National ICT Policy 2014 aims to establish Uganda as a knowledge society by 2025, through improvements in ICT infrastructure development and access.
- Uganda's National Backbone Infrastructure initiative has been extended to districts countrywide. The project aims to connect important cities and town in Uganda to an optical fibre cable-based network. One of its key objectives is to connect public entities to the e-Government network. So far, 5,110 km of fibre-optic cables have been laid out. Further, 4G technologies have also been rolled out to promote e-commerce.⁶⁵⁴
- Mobile operators and international organizations such as Google and Facebook have invested in improving wireless connectivity within Uganda.

Mobile infrastructure is quite developed, so most Ugandans rely on the cellular network to communicate and access information:

- Mobile connection penetration is high (about 56% of the population).⁶⁵⁵
- Smartphone penetration was about 16% in 2021. Although the adoption rate roughly quadrupled over the last four years, it is lower than the sub-Saharan African average of 30%.⁶⁵⁶
- About 38% of mobile users are connected to the internet and can afford mobile broadband subscriptions.⁶⁵⁷
- 3G and 4G connectivity is rising, with a penetration rate of 90% and 50%, respectively, in 2019.⁶⁵⁸

ICT infrastructure inadequacies – a lack of affordable broadband internet and low electricity supply – are the biggest challenges for the IT/BPM sector.

- According to the Alliance for Affordable Internet, 'affordable mobile broadband' – 1 GB of mobile data – is priced at no more than 6% of GNI per capita. Uganda affordability of 1 GB data is at par at 5.63% of GNI per capita.⁶⁵⁹
- Uganda also has one of the worst electrification rates in the world, at 24%.⁶⁶⁰

Table 91 Few Ugandans have fixed-line subscriptions

Telecom⁶⁶¹
<ul style="list-style-type: none"> ▪ Fixed telephone subscriptions (per 100 people) – 0.4 ▪ Mobile cellular subscriptions (per 100 people) – 61 ▪ % of the population with access to 3G – 65% in Northern Uganda; 88% in Central Uganda ▪ % of the population with access to 4G – 9% in Northern Uganda; 53% in Central Uganda
<ul style="list-style-type: none"> ▪ The adoption of fixed-line connections is low because costs are prohibitive and fixed-line infrastructure is not well developed. ▪ Wireless is the predominant method to access information. ▪ About 80% of the population has access to a mobile phone. ▪ More than 50% of mobile owners still subscribe to 2G-only services because of the lower cost.
Broadband/bandwidth⁶⁶²
<ul style="list-style-type: none"> ▪ Fixed broadband subscriptions (per 100 people) – 0.13 ▪ Active mobile broadband subscriptions (per 100 people) – 13.20 ▪ Individuals using the internet (% of population) – 20% ▪ International internet bandwidth per internet user (kilobits per second) – 4 ▪ Percentage of households with internet access – 6%⁶⁶³
<ul style="list-style-type: none"> ▪ Although mobile phones are the main platform to obtain information, only an estimated 38% of mobile phone users have access to the internet ▪ The GSMA Mobile Connectivity Index 2021 scores Uganda 47.4 out of 100 ▪ Affordability is a major obstacle to better broadband access in the country
Power⁶⁶⁴
<ul style="list-style-type: none"> ▪ Installed capacity – 1,291 MW ▪ Access to electricity (% of the population) ~ 23% <ul style="list-style-type: none"> – Urban – 63% – Rural – 11% ▪ People without power – 57.9% of the population⁶⁶⁵
<ul style="list-style-type: none"> ▪ Uganda has a low electrification rate at 24%.⁶⁶⁶ ▪ The electrification rate in rural areas is about 5%–6% and urban electrifications is 23%. ▪ The World Economic Forum global competitive index ranks Uganda's at 135 of 141 countries in terms of access to electricity.⁶⁶⁷ ▪ Uganda has a target to increase access to electricity to 60% of the population by 2027.
<p>Cost of electricity⁶⁶⁸</p>

Source: Avasant Research

Business registration in Uganda

The Government has laid down procedures and rules for a seamless business registration process, detailed below.

Business registration procedure

The Uganda Registration Services Bureau⁶⁶⁹ is responsible for local and foreign business registration.

The process to register a business in Uganda involves 13 steps. The full procedure – outlined in the World Bank Doing Business report on registering a business in Uganda⁶⁷⁰ – is summarized here:

1. Submit the Name Reservation Form at the assessment window of the Uganda Registration Services Bureau and obtain the bank payment slip.
2. Pay the name reservation fees at the bank.
3. Reserve the company name.
4. Obtain the payment slip for payment of the registration fee and the stamp duty from the registration bureau.
5. Pay the registration fees at a designated bank.
6. File the registration documents at the Office of the Registrar and obtain the Certificate of Incorporation.
7. Obtain a tax identification number and register for taxes at the Uganda Revenue Authority.
8. Receive inspection of the business premises by the Uganda Revenue Authority.
9. Obtain trading licence.
10. Receive the licensing officer's inspection of the business premises and obtain the assessment form.
11. Pay the licence fee at the bank.
12. Register with the National Social Security Fund.
13. Make a company seal.

Source: Avasant Research

Regulations in the technology ecosystem

The government bodies responsible for IT/BPM regulation and compliance include:

- The Ministry of ICT and National Guidance
- National Information Technology Authority-Uganda
- ICT Association of Uganda
- Alliance for Trade in Information Technology and Services

Table 92 Policies seek to draw foreign investors to Ugandan tech

Income and taxation⁶⁷¹

Corporate taxation:

- A standard rate of 30%

Withholding taxes:

- Dividends – residents and non-residents, 15%
- Interest – residents and non-residents are taxed at 15%. Companies listed on the stock exchange are taxed at 10%.
- Royalties – royalties paid to a resident are not subject to withholding tax. Those paid to non-residents are subject to a 15% withholding tax.
- Professional services fees – residents 6% and non-residents 15%.

	<p>Other taxes on corporations:</p> <ul style="list-style-type: none"> ▪ National Social Security Fund contributions: ▪ Total employer's contribution rate is 10%. ▪ Employees contribute 5% of their monthly remuneration towards their pension. ▪ Double-tax treaty with Mauritius – Dividends, royalties and interest paid to a Ugandan resident by a Mauritian company are taxed at 10%. ▪ Exemption from all taxes, levies and rates on exports from the free zones. ▪ 10-year tax holiday for service providers in a free zone whose investment capital is at least \$2 million (East African Community) and \$10 million (foreigners). ▪ Unrestricted remittance of profit after tax <p>VAT – 18%</p> <p>Capital gains tax – 30%</p>
Labour	<ul style="list-style-type: none"> ▪ The Ministry of Labour has fixed minimum wages of unskilled, semi-skilled and skilled workers for all occupations in Uganda. ▪ It has also defined laws governing employment termination, resignation, leave days, maximum working hours and maternity leave.
Work permits and business visas	<ul style="list-style-type: none"> ▪ Business visas can be applied for on the Uganda e-immigration system⁶⁷² ▪ Individuals may apply for seven classes of work permits, depending on the type of work they are to do in Uganda. Applicants who are East African nationals (Burundi, Kenya and Rwanda) are exempt from paying visa fees for all classes.
Cyber laws⁶⁷³	<ul style="list-style-type: none"> ▪ ICT in Uganda is governed by Computer Misuse (Amendment) Bill, 2022. It is an update to Computer Misuse Act, 2011, designed to improve the rules on unauthorized access to information and data, prohibit the sharing of any child-related information without consent and outlaw the mailing or sharing of materials that encourage hate speech.

Source: Avasant Research

Government and associations offer a helping hand to tech firms

The Ugandan IT/BPM service sector is approaching maturity. International and local IT/BPM providers serve the government and international NGOs, as well as the agriculture, telecom and mining sectors.

Several associations and bodies have been set up to accelerate and maintain the technology sector's growth.

Table 93 Four key associations work in the Uganda tech sector

Agency	Contact
The Ministry of Information and Communications Technology and National Guidance	Website: https://ict.go.ug/
National Information Technology Authority-Uganda	Website: https://www.nita.go.ug/
ICT Association of Uganda	Website: https://ictau.ug/
Alliance for Trade in Information-Technology and Services	Website: https://atis.ug/

Source: Avasant Research

Growing market segments

Healthcare, financial services and ICT are growing rapidly

Ugandan sectors with high growth potential are healthcare, banking, finance and insurance services, and ICT. Companies interested in offering IT/BPM services in the country should target those that support the large companies operating in these sectors.

The primary factors considered in selecting these sectors are each sector's size and year-on-year growth, including expected growth, growth drivers, market trends and IT/BPM trends for the industry.

Table 94 Three fast-growing sectors show outsourcing potential

Healthcare	
Government allocation to healthcare spending in 2022: ~ \$1 billion ⁶⁷⁴	<ul style="list-style-type: none"> According to Global Health Security Index 2021, Uganda's healthcare sector is better than the sub-Saharan African average – it is ranked 90th of 195 countries, with an index score of 36.5.⁶⁷⁵ In Uganda, as in most African countries, there is a gap in the health services required by the population – especially those in rural areas – and the services being provided. The health sector development plan 2015/16–2019/20 and the National e-Health Policy (2017–2021) aim to use ICT to transform the healthcare system. Improvements in mobile phone penetration and ICT infrastructure present an opportunity to close the gap between the needed healthcare services and those provided to the population. The improvement and increasing adoption of electronic health and mobile health services across the country offers an opportunity to deliver a safer, high-quality, efficient and sustainable healthcare system in Uganda.⁶⁷⁶
Expenditure as a % of GDP: ~ 3.83% (2019) ⁶⁷⁷	
Banking, finance and insurance services	
	<ul style="list-style-type: none"> Traditional financial institutions have been unable to reach low-income customers, especially those living in rural areas, due to the cost structure of retail financial services. Microfinance institutions and savings and credit cooperative associations are becoming more prevalent in rural areas and now reach demographics that previously had no access to financial services. Improvements in mobile phone penetration have resulted in massive adoption of mobile money accounts. About 31 million mobile money customers were registered in Uganda in 2021.⁶⁷⁸ Improved mobile phone penetration and broadband connectivity present an opportunity for financial institutions to provide innovative services to people who previously might have been deemed too hard to reach or too expensive to serve.
Information and communications technology	
Monthly smartphone users: 9.7 million	<ul style="list-style-type: none"> There were roughly 9.7 million monthly smartphone users in Uganda as of June 2021. In the second quarter of 2021, 900,000 new smart devices were added to the public communication networks.⁶⁷⁹ Better ICT infrastructure and access to reliable broadband and more affordable smart phones will boost demand for quality telecommunication infrastructure and services. ICT companies will have to increase service capacity and offerings and install the equipment and infrastructure required to support growing demand.
% Contribution to GDP: ~ 9% (2021) ⁶⁸⁰	

Source: Avasant Research

Market access opportunities

Healthcare, financial, and ICT sectors show the most promise

The Ugandan IT/BPM sector is in its infancy. The market access opportunities discussed in this section target established sectors with high potential for growth that IT/BPM providers could service.

Table 95 Three sectors offer different opportunities

Industry	Service area	Description
Healthcare	<ul style="list-style-type: none"> ▪ Digital health solutions ▪ Healthcare application services ▪ Customer and data management 	<p>Improved mobile phone penetration, ICT infrastructure development and greater government expenditure on healthcare present an opportunity to improve healthcare services. Key opportunities for IT/BPM providers include:</p> <ul style="list-style-type: none"> ▪ Mobile health solutions ▪ Enterprise resource planning and customer relationship management systems – development and maintenance ▪ Customer records management ▪ Customer support ▪ Healthcare application maintenance ▪ Telemedicine ▪ Electronic medical records system solutions ▪ Insurance registration and claims systems ▪ Hospital management information system solutions ▪ Health information system solutions ▪ Insurance registration and claims systems
Banking, finance and insurance services	<ul style="list-style-type: none"> ▪ Digital payments ▪ Online banking ▪ Peer-to-peer lending ▪ Personal finance ▪ Insurance ▪ Mobile remittances 	<p>Improved mobile penetration rates, ICT infrastructure and mobile broadband access in rural areas present an opportunity to create and manage more mobile banking and insurance services. Key opportunities for IT/BPM providers include:</p> <ul style="list-style-type: none"> ▪ Contact centre technology ▪ Back-end contact centres ▪ E-project management ▪ Business research and analytics ▪ Legal process outsourcing ▪ Business administration
ICT	<ul style="list-style-type: none"> ▪ Contact centre services ▪ IT enabled services ▪ Application development and management 	<p>The ICT sector is one of Uganda's biggest domestic buyers of IT/BPM support services. Opportunities for IT/BPM providers include:</p> <ul style="list-style-type: none"> ▪ Inbound and outbound services ▪ Customer service ▪ Outbound sales, back office ▪ Mobile money transfer services ▪ Mobile services and applications development ▪ Customized software development ▪ Big data and business intelligence ▪ Data capture, data entry, data processing ▪ Customer billing

Source: Avasant Research

Zambia

Fast-growing telecommunication sector supports a maturing IT/BPM landscape



ZAMBIA

Macroeconomic and country data



Capital: **Lusaka**

GDP at constant 2015 prices (2021): \$24.5 billion

GDP per capita at constant 2015 prices (2021): \$1,258

Real GDP growth rate (2021): 3.6%

Inflation rate (2021): 22.1%

Population (2021): 18.9 million

- 0–14 years: 44%
- 15–24 years: 21%

Population growth rate: 2.9%

Major business sectors: agriculture, mining, construction, tourism, textiles, chemicals

Unemployment rate (2021): 13%

Literacy rate (2018): 92%

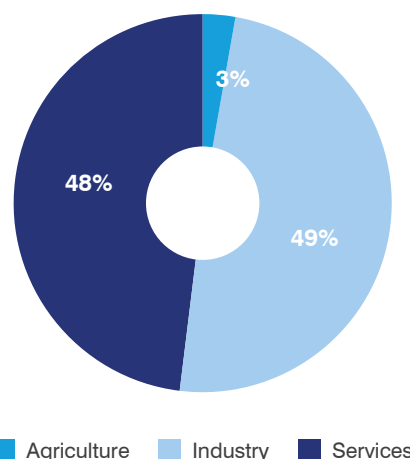
Urbanization (2021): 45%

Major trade and industry associations:

- Zambia Chamber of Small and Medium Business Associations
- ICT Association of Zambia
- Zambia Chamber of Commerce and Industry

Sources: 2021 Annual Economic Report – Ministry of Finance, Statistics Times, World Bank (GDP per capita, unemployment, population), UNESCO, World Investment Report 2021, FinScope 2020 Survey – Bank of Zambia, ITA – U.S. Department of Commerce, Avasant Research

GDP composition



Key facts

Currency: Zambian kwacha (ZMW)

Exchange rate (per \$): ZMW 18.98 (August 2023)

Foreign direct investment outflow (2021): \$457 million

The negative FDI flow in 2021 resulted from a 100% debt funded \$1.5 billion purchase of Glencore (Switzerland) by state-owned ZCCM Investment Holdings.

Major languages: English (official language)

Major religions: Christianity

Major exports: Copper, sugar, tobacco

Country highlights

Zambia is the second-largest producer of copper in Africa and relies on metal as its primary export. Other Zambian industries have also attracted investment, including manufacturing, cement, agroprocessing, textiles, mineral processing, energy and tourism.

About 61.3% of the population has access to formal financial services and products. The telecom sector has several major players, such as Airtel Zambia, Liquid Telecom, MTN Zambia, Zamtel and Vodafone Zambia. Mobile subscriptions rose to 20.2 million in 2021 from 19.1 million in 2020.

Agriculture will contribute nearly 19% to GDP in 2022 and employs three-quarters of the population.

Government incentives and policies for IT/BPM

Focus on building an information and knowledge-based society

The National Long-Term Vision 2030 targets the ICT sector and underpins the Government's hopes to build an information and knowledge-based society by 2030. The key initiatives under this long-term plan include universal access to high-speed internet, increasing tele-density across the country and providing access to ICT services.

The Government created a Ministry of Technology and Science to foster innovation and economic progress through science and technology. Over the next five years, the administration intends to encourage technological development, assist the digital revolution and attract foreign investment to the nation's telecom sector.

Other key initiatives⁶⁸¹ include:

- **Integrated National Registration Information System** – Zambia implemented this digital biometric security-enabled national identity management system for national registration cards in the first quarter of 2022.
- **Revised national ICT policy** – The current ICT policy was developed in 2006. There has been a major shift in the ICT landscape since the mid-2000s and the policy is not adequate for the current needs of a digital economy. Therefore, the Government is revising the national ICT policy and developing a digital transformation strategy. The new policy aims to create a medium-term plan for ICT sector growth.

- **Memorandum of understanding with ASSECO** – Zambia and Polish technology company ASSECO signed a €10 million agreement to establish a joint venture company that will drive the digital transformation of the Zambia Postal Services Corporation, known as Zampost. The digital transformation will enhance the e-commerce and e-banking platform capabilities of Zampost.
- **Private sector** – launch of 5G pilot programme – MTN Zambia launched a 5G network pilot platform for better connectivity, ultra-low latency, speed and higher bandwidth. MTN will roll out a 5G pilot in Lusaka and Copperbelt Provinces.
- **Huawei's digital innovation leadership programme** – Huawei plans to train 5,000 students and 50 teachers across ICT institutions in Zambia, build a digital innovation hub to serve as an ICT centre of excellence and create a Digital Innovation Scholarship Fund that will help 50 students annually until 2026.⁶⁸²

Business development incentives:⁶⁸³

- A 15% corporate tax in place of normal tax bands (35%) for exporting companies
- Exemption from duty and VAT on imports and machinery for exporters of non-traditional products such as IT/BPM services

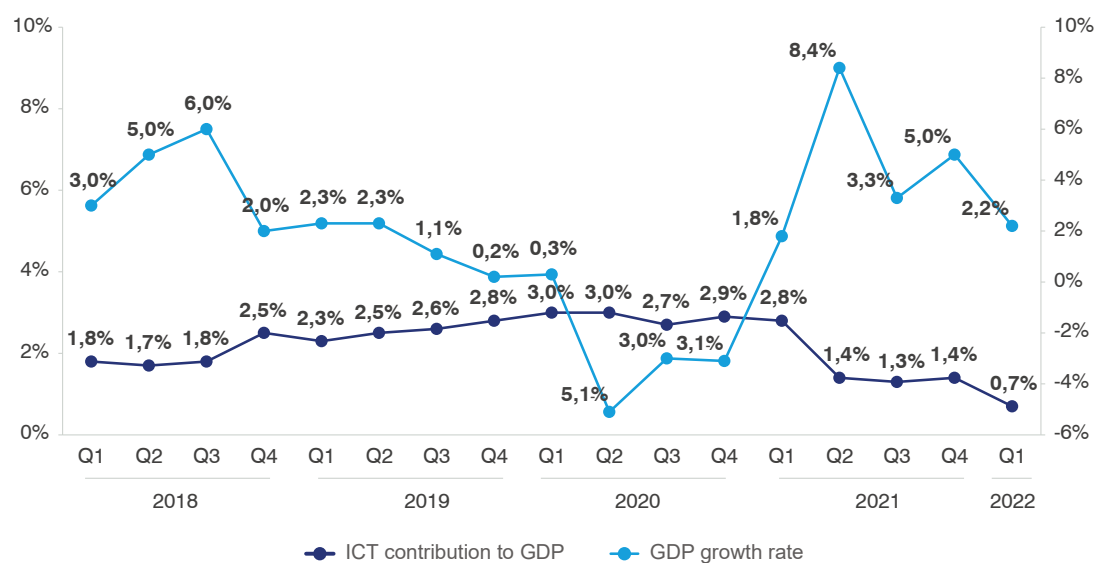
Information and communications technology landscape

The tech sector is small, but growing quickly

The ICT sector's contribution to GDP steadily rose from 1.8% in the first quarter of 2018 to 2.8% in the first quarter of 2021 before declining to 0.7% in the first quarter of 2022.⁶⁸⁴

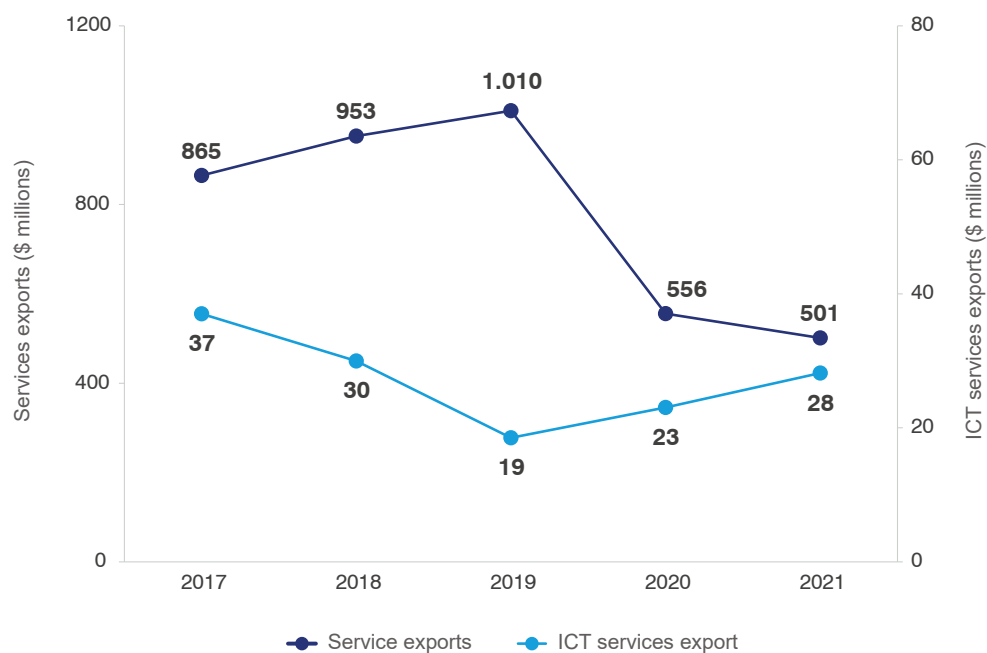
As of June 2022, there were 79 valid telecom network licences to operate in the telecom space and provide

telecommunications services. To combat digital fraud, the Zambia Information and Communications Technology Authority disconnected more than 2 million SIM cards. The subscribers of these deactivated SIM cards each had more than 10 SIM cards.⁶⁸⁵

Figure 32 ICT contribution to Zambian GDP has been fluctuating

Source: [Mid-Year ICT Sector Performance Report, 2022](#)

In 2021, Zambia exported \$28 million in ICT services (a key measure of IT/BPM services), accounting for 5.6% of total service exports.⁶⁸⁶ ICT exports have been rising steadily since 2019 after declining two years in a row in 2018 and 2019.

Figure 33 ICT service exports

Source: World Bank ([services exports](#), [ICT services exports](#))



Zambian technology sector

Attractiveness factors



Favourable time zone

A difference of 1–2 hours with the United Kingdom and most European countries



Native English talent

English is the official language and is fluently spoken by people in urban areas



Young workforce

with more than 3.5 million people between 15 and 24 years of age⁶⁸⁷



Competitive labour costs,

with an average monthly wage of \$250⁶⁸⁸

Key industries served: Government, telecommunications, financial services, mining

ICT exports: ~ \$28 million⁶⁸⁹

Average salary range (monthly): ~ \$242–\$974⁶⁹⁰

Main IT/BPM service offerings: Inbound customer service, inbound dealer help desk, outbound sales, back office, interactive voice response deployment/management, enterprise business

Key industries served: Government, telecommunications, financial services, mining

Examples of buyers:



Key IT/BPM associations and agencies:

- Zambia Information and Communications Technology Authority
- ICT Association of Zambia
- Ministry of Technology and Science
- Ministry of Small and Medium Enterprise Development

Source: Avasant Research

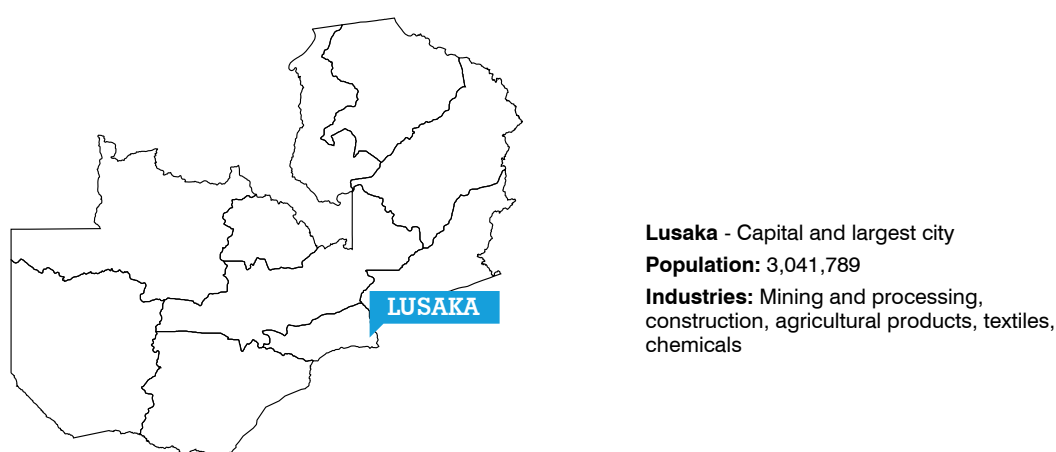
Key cities and technology centres

Lusaka is the primary location for tech hubs

Zambia has a small IT/BPM sector that is most active in the capital, Lusaka. The city, one of the fastest developing in southern Africa, is also the biggest in Zambia, with a population exceeding 3 million.⁶⁹¹ Lusaka is the technology

centre of Zambia. It is home to more than 10 fintech start-ups, such as Zoono, a mobile money platform, and Flex Payroll, a cloud-based payroll solution.⁶⁹²

Figure 34 Lusaka is the centre of commerce and government



Source: Avasant Research

Table 96 Entrepreneurship is concentrated in Lusaka

City	ICT hubs/tech parks/start-up hubs
Lusaka	<ul style="list-style-type: none"> ▪ BongoHive ▪ Women's Entrepreneurial Centre of Resources, Education, Access and Training for Economic Empowerment ▪ Jacaranda Hub ▪ NyamukAfrica ▪ ImpactHub

Source: Avasant Research

The state of competition: Understanding the landscape

Good prospects for a thriving tech industry

The IT/BPM industry is nascent, with just a handful of providers serving local businesses. However, Zambia has high potential to develop a thriving IT/BPM industry. In its Seventh National Development Plan, the Government identified ICT as a catalyst to boost socioeconomic development.

The table below describes the primary services offered and industries served by some of the leading service providers in Zambia. International players are highlighted in blue.

Table 97 Providers offer a range of services

Service provider	Headcount / Location	Examples of services offered	Industries served
 Techno Brain Group	100+ / Lusaka	IT services, business process outsourcing, software solutions	Government, banking, financial services and insurance, manufacturing, utilities, logistics, mining
 iSON Xperiences	200+ / Lusaka	Inbound customer service, inbound dealer help desk, outbound sales, back office, interactive voice response deployment/management, showroom staff deployment and management services	Telecommunications
 Tech Mahindra	Lusaka	Business process services	Telecommunications
 AfriConnect Zambia	Lusaka	Internet access, network security, IT consulting, ICT hardware	Government, tourism, media, non-profit, e-commerce, agriculture
 Liquid Telecom	Lusaka	Cloud services, unified communications, disaster recovery, data centres	Telecommunications
 Christian Jay Invest	Lusaka	Call centre, PBX support services, unified communication services, web conferencing, software development	Power sector, telecommunications, media
 Infratel	Lusaka	Data centre, cloud services, tower services	Telecommunications
 Net One	Lusaka	IT products and services, enterprise resource planning solutions, enterprise technology, data centre	Telecommunication, insurance, banking, mining
 MTN	Lusaka	Customer communication solutions and services, mobility services, voice, data and digital services	Retail
 Airtel	Lusaka	Voice, internet, devices, value-added services	Retail

Source: Avasant Research

Service capacity and capability

The population is young and educated

Zambia was ranked 131 of 157 countries in the World Bank 2018 Human Capital Index. In 2020, Zambia scored 0.4 on a scale of 0–1. The country has a very young and educated population, with a median age of 16.9 years⁶⁹³ and a literacy rate of 92%.⁶⁹⁴

Although more than half the population lives in rural areas (55.4%), the rate of urbanization is rapid (4.2% every year).⁶⁹⁵

This positions Zambia as a potential destination for IT/BPM services as forward and backward linkages in the industry continue to cluster.

The following table examines the talent availability and capability for the IT/BPM sector as well as its scalability prospects and opportunities.

Table 98 Tech sector can draw from a large pool of new graduates

Talent and skill availability	
No. of universities: 62 ⁶⁹⁶	Zambia has nine public and 53 private universities in seven provinces. Lusaka has four public and 38 private universities; Copperbelt has two public and eight private universities; Central has two public and two private universities; Western has two private universities; Muchinga has one public university and Southern has three private universities. ⁶⁹⁷ COVID-19 led to the closure of universities and a 4.4% decline in the number of university students, to 114,049 in 2020 from 119,272 in 2019. Further, 27,884 students graduated in 2020. ⁶⁹⁸ The Higher Education Authority accredited 132 learning programmes in 2020. With more than 30,000 graduates entering the job market annually, potential IT/BPM professionals can be regularly drawn from the large graduate pool.
Annual tertiary graduates: ~ 30,000 ⁶⁹⁹	
Youth unemployment: 26% ⁷⁰⁰	
Tertiary, gross enrolment ratio: 16% ⁷⁰¹	
Quality and employability of talent	
Quality of vocational training: Ranks 118th of 141 countries	Based on the WEF Global Competitiveness Index, Zambia ranks 118 th of 141 countries in terms of the quality of vocational training. The country secured a higher ranking (30) on the extent to which companies can find people with the skills required to fill vacancies, i.e. the ease of finding skilled employees. This higher rating can be attributed to the availability of college graduates in Zambia, coupled with moderately high levels of unemployment and underemployment. These factors enable skilled employees to search for better job opportunities. With youth literacy at 92.1% and adult literacy at 86.7% , Zambia ranks ahead of many countries competing for a share of the offshore services market. The country is well-positioned in terms of language because of its large English-speaking population: an estimated 16% of Zambians (roughly 3 million people) speak English. ⁷⁰²
The skill set of graduates: Ranks 96th of 141 countries	
Labour force with an advanced education: 86% ⁷⁰³	
Ease of finding skilled employees: Ranks 30th of 141 countries	
Digital skills in active population: Ranks 118th of 141 countries	
Literacy <ul style="list-style-type: none"> ■ Youth literacy: 92.1%⁷⁰⁴ ■ Adult literacy: 86.7%⁷⁰⁵ 	
Language proficiency: High English speaking capability	
Scalability	
The large pool of tertiary graduates, combined with relatively high unemployment rates, means there is potential for IT/BPM operations to scale. However, adequate training mechanisms are needed to supplement the skills of these graduates so they can perform effectively in the industry.	
To help, the Government established an ICT Centre of Excellence in Zambia Information and Communications Technology College. The institution aims to provide ICT technology to people to build capacity for the industry.	

ICT infrastructure

Infrastructure has improved over the years

Zambia had 16.73 million mobile connections in January 2021, and around 89.7% of the population had a mobile connection at that time.⁷⁰⁶ Mobile connections rose 4.2% YoY between January 2020 and 2021. Approximately 89.7% of the total population had a mobile connection as of January 2021.⁷⁰⁷ The infrastructure to support ICT has

improved over the years. The Government has supported growth through tech-related policy and investment in the sector. Improvements will help realize the full potential of a digital economy. Mobile phone penetration per 100 inhabitants increased to 110 in 2021 from 107 in 2020.⁷⁰⁸

Table 99 Few Zambians have fixed telephone subscriptions

Telecom
<ul style="list-style-type: none"> ▪ Fixed telephone subscriptions (per 100 people) – 0.36⁷⁰⁹ ▪ Mobile cellular subscriptions (per 100 people) – 106⁷¹⁰
<p>As seen in most sub-Saharan countries and other developing economies, there are far more mobile service subscriptions than fixed telephone subscriptions in Zambia. This is primarily due to prohibitive costs and less developed fixed-line infrastructure.</p>
Broadband/bandwidth
<ul style="list-style-type: none"> ▪ Fixed broadband subscriptions (per 100 people) – 0.45⁷¹¹ ▪ Active mobile broadband subscriptions (per 100 people) – 51.10⁷¹² ▪ Individuals using the internet (% of the population) – 20%⁷¹³ ▪ International internet bandwidth per internet user (kilobits per second) – 5.49k⁷¹⁴ ▪ % of households with internet access – 8.18%⁷¹⁵
<p>Fixed broadband penetration is also low. The household penetration rate fell to 0.45% at the end of 2020 from 0.72% at the end of 2019.</p> <p>Zambia ranks 106th of 230 countries on mobile data affordability (based on the worldwide mobile data pricing by Cable.co.uk), where the average price of 1 gigabyte of data is \$1.36 on a 30-day plan.⁷¹⁶</p> <p>Entry-level broadband services should be affordable in low- and middle-income countries at less than 2% of monthly GNI per capita by 2025, according to the Broadband Commission for Sustainable Development. In Africa, the fixed broadband and mobile data basket prices were at 19% of GNI per capita in 2020.⁷¹⁷ In Zambia, the cost of a data-only mobile broadband package (1.5 GB) was 3.65% of GNI per capita that year.⁷¹⁸ Entry-level broadband services are somewhat expensive in the country.</p>
Power ⁷¹⁹
<ul style="list-style-type: none"> ▪ Electric power consumption (kWh per capita) – 709 ▪ Generation capacity <ul style="list-style-type: none"> – Installed capacity – 3,457 MW⁷²⁰ ▪ Connections <ul style="list-style-type: none"> – Current access rate – 40% – Rural – 11% – Urban – 77%

The Government has set a goal of universal access by 2030 and is working to develop the infrastructure and improve transmission. When compared to the highest national demand of about 2,300 MW, the installed national capacity is 3,456.8 MW⁷²¹.

Cost of electricity⁷²²

Source: Avasant Research

Key challenges facing the ICT sector⁷²³

Zambia faces many challenges in its path to development, according to a sectorial policy and regulatory review conducted by the Zambia Information and Communications Technology Authority in June 2022. These include:

- **High taxes:** The ICT sector has a massive liability in terms of a high corporate tax rate (40%) on profits above K250,000 (about \$13,020). The excise duty (17.5%) inflates the cost of services, indirectly affecting revenues.⁷²⁴
- **High energy costs:** Energy costs (diesel, a key input) rose significantly in the first half of 2022. In addition, monthly regular pricing adjustments led to considerable periodic variations in fuel prices, causing greater price volatility.
- **Lack of awareness:**
 - **Cybersecurity** – Cybersecurity knowledge, especially awareness about immediate risks and mitigation strategies, is very limited among ICT consumers.
 - **Emerging technologies** – Zambian ICT consumers have very little digital literacy in cloud services and artificial intelligence awareness.
- **Delayed government approvals on ICT infrastructure development:** Operators who participated in the Zambia Information and Communications Technology Authority's policy review indicated that the agency delayed obtaining several critical time-sensitive approvals on essential infrastructure installation, such as the laying of fibre. These delays resulted in longer installation time, affecting overall service delivery.

Business registrations

Business registration procedure

- Fill in the name clearance form or the form called application for registration/re-registration of the business name (BN Form III) at the Patents and Companies Registration Agency desk.
- Pay the registration fee.
- Present the completed form and the payment receipt to the supervisor at the registration agency desk.
- Upon receiving the signed Certificate of Registration from the desk, fill in the 'one-stop shop registration form' to apply for tax registration and registration as an employer.

Source: Avasant Research

What is the focus of tech policy in Zambia?

The Zambia Information and Communications Technology Authority, part of the Ministry of Transport, Works, Supply and Communications, regulates the ICT sector. The following regulatory and compliance policies govern the IT/BPM sector.

Table 100 Business permits and work permits are available

<p>Labour laws (Employment Code Act 2019)</p>	<ul style="list-style-type: none"> ■ The Ministry of Labour has fixed minimum wages for unskilled, semi-skilled and skilled workers across occupations. ■ The ministry has also defined laws governing termination of employment, resignation, leave days, maximum working hours and maternity leave. ■ The code introduced mandatory employee benefits such as housing, sanitation, water and medical attention ■ It added four new leave entitlements: paternity leave, responsibility leave, compassionate leave and day and health breaks <p>The code covers all employee categories except independent contractors.</p>
<p>Visa and immigration policies (Immigration and Deportation (Amendment) Act, 2016)</p>	<ul style="list-style-type: none"> ■ Business visas are available for executives and investors travelling to Zambia for meetings/discussions (Fee: \$70). ■ Work permits are available for temporary business, professional employment, trade and farming. <p>Key immigration policies:</p> <ul style="list-style-type: none"> ■ Immigration and Deportation (General) (Amendment) Regulations, 2020 ■ Immigration and Deportation (General)(Amendment) Regulations, 2019 (SI 9 of 2019) ■ Immigration and Deportation (Immigration Consultants) Regulations, 2013 (SI 38 of 2013) ■ Immigration and Deportation (General) Regulations, 2011 (SI 129 of 2011). <p>Type of visas:⁷²⁵</p> <ul style="list-style-type: none"> ■ Single entry visa – The holder can enter Zambia only once (90 days validity; fee – \$50) ■ Double entry visa – The holder can enter Zambia twice (90 days validity; fee – \$80) ■ Multiple-entry visa – The holder can enter Zambia multiple times (90 days validity; fee – \$80) ■ Transit visa – Issued to nationals who need to enter Zambia, transiting through land transport (7 days validity) ■ Day tripper visa – Issued at a port of entry to a tourist visiting Zambia for 24 hours or less, exiting through the same port (fee – \$20) ■ Gratis visa – A free visa issued at Zambia Missions Abroad or to members of the diplomatic community. The diplomats need to present letters of accreditation and diplomatic passports.
<p>Cybersecurity and data privacy regulations⁷²⁶</p>	<p>Cybercrime is covered under the Cyber Security and Cyber Crimes Act 2021. Key functions include:</p> <ul style="list-style-type: none"> ■ Provide for the establishment and duties of the National Cyber Security Advisory and Coordinating Council ■ Continuation of the Central Monitoring and Coordination Centre ■ Protection of people against cybercrime ■ Safety of children online ■ Protection of critical information infrastructure ■ Gathering and preservation of evidence of computer and network crimes. <p>More legislation is being drafted targeting cybersecurity and cybercrime, data protection and electronic transactions, and e-commerce.</p>

Source: Avasant Research

Trade associations offer a helping hand to tech firms

Table 101 Two key associations work in the sector

Agency	Contact
Information and Communication Association Zambia	Website: http://www.ictaz.org.zm/
Zambia Information and Communications Technology Authority	Website: https://www.zicta.zm/

Source: Avasant Research

Growing market segments

Telecommunications and retail are expanding rapidly

The IT/BPM sector is an enabling sector for other vertical markets. It serves various sectors, including banking and financial services, insurance, telecommunications, automobile, retail, fast-moving consumer goods, e-commerce, agriculture, tourism and government.

Before deciding to establish in a country, providers must identify target verticals with high growth potential. This not

only ensures that there is demand for their services, but it also safeguards the sustainability and scalability of operations.

The telecommunication and retail industries have a high potential to generate demand for IT/BPM services in Zambia. The primary factors considered are each sector's size and year-on-year growth, including predicted growth, growth drivers, market trends and IT/BPM trends for the industry.

Table 102 Telecom is one of the fastest-growing market segments

Telecommunications	
Revenue performance in the mobile telephone subsector (2021): ~ \$6.6 billion ⁷²⁷	<ul style="list-style-type: none"> ■ Telecommunications is one of the fastest-growing sectors in Zambia. ■ Increasing tele-density and internet access are two primary goals in Vision 2030. ■ The telecom sector is one of Zambia's biggest domestic buyers of IT/BPM services. ■ International firms, including iSON and Tech Mahindra, have signed business process outsourcing deals with telecom players in Zambia. ■ The BPO market in the Middle East and Africa is estimated to reach \$21 billion by 2029 and is predicted to develop at a CAGR of 7% from 2022 to 2029.⁷²⁸
E-commerce ⁷²⁹	
The projected size of e-commerce (2022): ~ \$290 million	<ul style="list-style-type: none"> ■ A very young population with a fast rate of urbanization will increase the base of retail customers, especially vis-à-vis e-commerce. ■ The retail sector is proliferating and has the potential to generate massive demand for IT/BPM solutions and services. ■ Online marketplaces such as Kajju and Dot-Com Zambia have begun to gain traction in the retail market.
Annual CAGR (2022–2025): 18%	

Source: Avasant Research

Market access opportunities

Telecommunications and retail sectors will drive demand

The trends in the growing market segments showcase the sectors likely to drive demand for IT/BPM services in Zambia: telecommunications and retail. The table below identifies market access opportunities and potential service areas in these two sectors.

Table 103 Market access opportunities

Industry	Service area	Description
Telecommunications	<ul style="list-style-type: none"> ▪ Customer service ▪ Back office ▪ Showroom staff deployment ▪ End-user devices support ▪ Managed IT 	<ul style="list-style-type: none"> ▪ The telecom sector is one of the biggest domestic buyers of IT/BPM support services. ▪ The sector is highly competitive. This drives demand for better customer service, which drives demand for innovative IT/BPM solutions. ▪ Mobile money has been a game changer across Africa, helping to provide financial access to the population. Mobile money operations also increase the demand for information technology.
Retail	E-commerce solutions	<ul style="list-style-type: none"> ▪ According to McKinsey, the e-payments market will grow roughly 150% between 2020 and 2025, reaching almost \$40 billion in revenues from domestic payments alone and 188 billion transactions.⁷³⁰ ▪ About 20% of the population has internet access. This will underpin demand for e-commerce.⁷³¹

Source: Avasant Research

References and Endnotes

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ENDNOTES

- 1 BPM uses various methods to model, analyse and optimize end-to-end business processes to help a firm meet its strategic business goals.
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- 3 Connecting Africa
- 4 Global System for Mobile Communications Association (GSMA)
- 5 Statista
- 6 *Bolstering innovators in Africa* report
- 7 International Monetary Fund
- 8 McKinsey
- 9 McKinsey
- 10 [Chatham House](#)
- 11 [Wiley](#)
- 12 [African Union](#)
- 13 [African Union](#)
- 14 [AfCFTA website](#)
- 15 World Bank
- 16 United Nations Conference on Trade and Development (UNCTAD)
- 17 AfCFTA website
- 18 International Telecommunication Union
- 19 Statista
- 20 AfCFTA website
- 21 Microsoft
- 22 Microsoft
- 23 Brookings
- 24 Africa Export-Import Bank
- 25 Africa Outlook Mag
- 26 An industry vertical or vertical market identifies companies that offer niche products or fit into multiple industries. Verticals are often new fields with promising companies that attract investors.
- 27 kaoafrica
- 28 UNCTAD
- 29 Africa Development Bank
- 30 United Nations
- 31 Observer Research Foundation
- 32 Digital Transformation Strategy for Africa (2020-2030) (EN)
- 33 UN Economic Commission for Africa
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- 36 UNCTAD
- 37 Tralac
- 38 [African Union](#)
- 39 [Lawyers Hub](#)
- 40 [ITU](#)
- 41 [AFBD](#)
- 42 [Digital Africa](#)
- 43 The Deutsche Gesellschaft für Internationale Zusammenarbeit, better known as GIZ, is the main German development agency.
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- 81 [International Trade Administration, U.S. Department of Commerce](#)
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- 87 [Ecofinagency](#)
- 88 [Cable.co.uk](#)
- 89 [USAID](#)
- 90 [World Bank](#)
- 91 [Global Petrol Prices](#)
- 92 [Network Readiness Index, WEF](#)
- 93 [Doing Business in Côte d'Ivoire](#)
- 94 [Labour Laws](#)
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- 96 [Data Guidance](#)
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