



# ZICTA

# Information and Communication Technologies Sector

## 2020 Mid-Year Market Report

January- June, 2020

Advancing the Nation  
to a Digital Society

## About this Report

The 2020 Mid-Year Market Report for the Information and Communication Technologies (ICT) Sector has been developed by the Economic Regulation department at the Zambia Information and Communications Technology Authority (ZICTA). The report is based on quantitative and qualitative insights gathered from various players in the ICT sector who include: providers of ICT services, Government Ministries, Agencies and Departments; as well as physical and online resources which were complemented with information generated by the Authority.

Specifically, the report highlights global and national developments in the ICT sector over the first half of 2020. An assessment of the macro-economic environment is also presented with a focus on deciphering implications for the ICT sector. The report also presents some highlights on key trends in ICT access and usage based on micro level data as well as some of the drivers that could explain any observed patterns at the global and national level. The main focus of the report is to highlight developments in the various market segments of the ICT sector including but not limited to details on the market size, competition landscape, revenue performance, investment and any impediments to the growth and development of the sector. A sectorial policy and regulatory review based on consultation with the industry is also provided. The report concludes with some sentiments on the forecast for the subsequent review period and provides some suggestions on interventions to consider for the remainder of the year.

The information provided in this report is primarily compiled to assist in enhancing the regulatory functions of the Authority, assist in aligning the existing policy to the current dynamics on the market as well as to highlight any impediments on the market that need redress. Notwithstanding, all opinions, errors or omissions are the responsibility of the authors and would not present any liability on the Authority.

## List of Abbreviations

CPI	–	Consumer Price Index
DS	–	Data Storage
Gbps	–	Gigabytes per second
GCA	–	Global Cybersecurity Agenda
GCI	–	Global Cyber Security Index
GDP	–	Gross Domestic Product
GSMA	–	GSM Association
HHI	–	Herfindahl-Hirschman Index
ICT	–	Information and Communication Technology
IDI	–	ICT Development Index
IOT	–	Internet of Things
ITU	–	International Telecommunications Union
LDC	–	Least Developed Countries
LTE	–	Long Term Evolution
MNO	–	Mobile Network Operator
MPLS	–	Multiprotocol Labeling Switching
M2M	–	Machine-to-Machine
OTTs	–	Over –The-Top Technologies
PSTN	–	Public Switch Technology Network
SDGs	–	Sustainable Development Goals
SMS	–	Short Message Services
Tbps	–	Terabits per second
TTMS	–	Telecommunication Traffic Monitoring System
TMT	–	Technology, Media and Telecommunications
VDI	–	Virtual Desktop Infrastructure
VM	–	Virtual Machines
ZICTA	–	Zambia Information and Communications Technology Authority

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# Executive Summary

## Global Developments in the ICT Sector

According to the latest International Telecommunications Union (ITU) Facts and Figures report, almost the entire world population (97 percent) lives within reach of a mobile cellular signal. In the Africa region the population covered by a 3G or higher network is estimated at 79 percent. The World Bank in partnership with the ITU, GSMA, the global mobile industry association, and the World Economic Forum (WEF), hosted a high level dialogue to discuss an accelerated action plan to better leverage digital technologies and infrastructure in support of citizens, governments and businesses during the Covid-19 pandemic. Three major African markets announced plans to adopt 5G within the year 2020 – these are South Africa, Kenya and Uganda. Member countries of the Central African Economic and Monetary Community (CEMAC) are considering eliminating international roaming charges levied on voice calls. The GSMA convened some of the pioneers in 5G to develop a guidelines document that provides technological, spectrum and regulatory support to operators in the deployment of 5G Stand Alone. In the first half of 2020, the GSMA unveiled the 2019 annual ‘State of the Industry Report on Mobile Money’, where they highlighted what one billion registered accounts means for the mobile money industry, mobile money users and the future of the mobile money ecosystem.

## Local Developments in the ICT Sector

By the end of June 2020, there were a total of eighty nine (89) valid licences in the ICT sector compared to eighty seven (87) valid licences recorded at the end of June, 2019. During the first half of 2020, a total of five licences were issued. ZICTA also cancelled two licences for UZI Zambia during the first half of 2020. By the end of June, 2020, the Authority had issued a total of thirty two (32) valid licenses to operators in the postal and courier services sector compared to twenty five (25) licences reported at the end of June, 2019. The value of electronic money transactions increased from ZMW 18.99 billion recorded in the first half of 2019 to ZMW 43 billion recorded in the first half of 2020 reflecting an increase of 126 percent. Similarly, the volume of electronic money transactions increased from 224 million transactions recorded in the first half of 2019 to 424 million transactions recorded in the first half of 2020 reflecting an increase of 89 percent. MTN Zambia in January 2020 was among the first providers of mobile broadband services to launch a new range of non – expiry mobile data bundle. Airtel Networks Zambia Plc also launched the new Airtel TV App which is earmarked to allow customers to enjoy news on the go as well as other programming such as movies, music, reality shows, children’s’ shows as well as documentaries. Zamtel signed a Memorandum of Understanding (MoU) with Zambia Railways (ZRL) through which Zamtel will provide ZRL with Integrated Communication Solutions including voice and data. To increase digital financial services, Financial Sector Deepening Zambia and its partners began a process of distributing cell phones and solar chargers to savings groups in rural communities.

## Performance of the ICT Sector

The total number of active mobile network subscriptions increased from 16.3 million subscriptions at the end of June, 2019 to 17.9 million subscriptions at the end of June, 2020 reflecting an improvement of 10.0 percent. The growth in mobile network subscriptions represents an

improvement in the mobile penetration rate, defined as the ratio of the total number of active subscriptions to the total population, from 93.8 percent recorded at the end of June, 2019 to 100.2 percent recorded at the end of June, 2020. Domestic incoming mobile voice traffic increased marginally from 1.11 billion minutes recorded in the first half of 2019 to 1.115 billion minutes reported in the first half of 2020 reflecting an improvement of 0.4 percent. Similarly, the total domestic outgoing minutes increased from 7.9 billion minutes recorded in the first half of 2019 to 9.9 billion minutes reported in the first half of 2020, representing an improvement of 26.1 percent. Incoming international mobile voice traffic declined from 15.8 million minutes reported in the first half of 2019 to 10.5 million minutes reported in the first half of 2020 reflecting an overall reduction of 33.6 percent. Similarly, outgoing international mobile voice traffic declined by 54.9 percent, from 17.6 million minutes reported in

Based on an assessment of twelve (12) comparable countries in the region, Zambia's ranking on the cost of headline tariffs relative to other countries is highlighted below:

- i. Fifth (5th) on 'Off net' off Peak calls;
- ii. Fourth (4th) on 'Off net' on Peak calls;
- iii. Fourth (4th) on 'On net' on Peak calls; and
- iv. Fifth (5th) on 'On net' on off Peak calls

The total number of telecommunication sites that were operational in the country increased from 8,227 reported at the end of June, 2019 to 10,338 reported at the end of June, 2020 representing an increase of 25.7 percent. The mobile telephone subsector reported a 12.8 percent increase in revenue performance in the first half of 2020 compared to the same period in 2019. Revenue increased from ZMW 2.1 billion in the first half of 2019 to ZMW 2.4 billion during the first half of 2020 on a year to date basis. Airtime sales and data sales continued to account for the largest proportion of revenue for the mobile telephone sector. However, a noted reduction in call termination fees as well as sales of products of 13.2 percent and 35.6 percent respectively were observed during the period under review

The total number of active internet subscriptions in the country increased from 9.1 million subscriptions recorded in the first half of 2019 to 9.5 million subscriptions reported at the end of June, 2020 reflecting an improvement of 3.6 percent. Consequently, the internet penetration rate increased from 52.6 percent to 52.9 percent between June, 2019 and June, 2020. The Lit/equipped capacity for the first half of 2020 among the mobile cellular network operators increased by 29.1 percent to reach 102,378 Megabits per second (Mbps) from 79,290 Mbps reported in the first half of 2019. Overall, capacity usage increased by 56.9 percent during the review period. The total number of telecommunication towers in Zambia increased from 2,462 reported at the end of the first half of 2019 to 3,245 reported at the end of the first half of 2020, representing an increase of 15.1 percent.

Based on a Sectorial Policy and regulatory review, the following constraints on the Market were noted:

**Damage to Fibre infrastructure:** There was a reported challenge related to cutting of existing fibre networks related to the road construction projects currently being deployed that has affected quality of service delivery.

**Restrictions on international VOIP:** Operators continued to highlight the challenges with the licensing framework that limited their provision of international voice services using VOIP platforms.

**Uncompetitive Co-location costs:** This was mainly attributed to the highly concentrated market for passive infrastructure as well as the practice of charging for local services in US dollars.

**Higher tax incidence in the ICT sector.** Notably, the extension of excise duties applied on airtime to fixed internet services in 2019 was noted as a major constraint. Operators also cited the highest corporate tax rate of 40 percent applied on telecommunication companies as burdensome.

**Macro-Economic Instability:** Operators cited challenges associated with the macroeconomic stability especially regarding the exchange rate volatility. It was noted that the fluctuations in the exchange rate posed uncertainty on the outlook for their operations.

**Rising energy Costs:** The continued load management for electricity posed challenges related to costs as operators needed to substitute the energy source for diesel to maintain their operations.

## **Outlook for the ICT Sector in the Second half of 2020**

**Growth in ICT Uptake and Deployments:** The ICT sector is expected to continue on its positive growth trajectory in the subsequent review period amidst some notable risks. Growth is expected to mainly be driven by increased demand for data services among consumers. The Authority forecasts that the mobile subscriber base would close at over 18.2 million subscriptions by the end of 2020. Investments into infrastructure especially 4G/LTE sites among the mobile network operators is likely to drive increased adoption of broadband services.

**Macro-economic outlook and its implications:** There are noted risks in the macro-economic environment that could dampen the growth prospects in the sector. Particularly, the sustained depreciation of the local currency has potential to spur inflationary pressure that would adversely affect the cost inputs for operators. The downward revision of the economic growth prospects to - 4.2 percent is also likely to stifle market expectations regarding uptake and usage and could extend to investment decisions.

**Cyber Related Risks:** Cyber related frauds especially on mobile money accounts are expected to persist. The sms frauds which are targeted at mobile money users are increasingly drawing the biggest attention on consumer awareness and consumer protection. However, as adoption of ICTs increases the diversity and intensity of these risks is expected to persist.

**Investment in Infrastructure:** The continued construction of the 1009 communication towers coupled by investments in fibre and telecommunication sites by operators is expected to extend coverage and improve network optimisation and stability. Extension of fibre circuits by some operators is also expected to open additional routes for redundancy.

**Product and Service Diversity:** Operators are also expected to continue introducing innovative product offerings for consumers to remain viable in the competitive environment. Operators with

ownership of a fibre network as well as VOIP capabilities are expected to introduce their product offerings in the subsequent period initially focussing on corporate business.

**Issuance of Spectrum in the 800 MHz band:** ZICTA is expected to issue a call for applications for the spectrum in the 800 MHz band that emerged from the digital migration process. The spectrum is anticipated to assist with improving quality of service and the deployment of more extensive networks at cost effective rates.

**Issuance of Licence for Fourth Mobile Network Operator:** Following the cancellation of the licences for UZI Zambia, ZICTA is scheduled to issue a call for applications for a network license in the international market segment and a service licence in the national market segment.

# 1.0. Recent Global Developments in the ICT Sector

## 1.1. Coverage of the Global Population with Mobile Cellular Signal

According to the latest International Telecommunications Union (ITU) Facts and Figures report, almost the entire world population (97 percent) lives within reach of a mobile cellular signal. The ITU further estimates that 82 percent of the world's population lives within reach of an LTE or higher mobile-broadband signal. On the other hand, 93 percent of the world's population lives within reach of mobile broadband (or internet) service, while just over 53 percent actually uses the internet. On a regional level, more than 95 percent of the population in Asia and the Pacific, Europe, and the Americas is covered by a 3G or higher network. In the Arab States, 91 per cent of the population is covered by a 3G or higher network, while in the Africa region the population covered by a 3G or higher network is estimated at 79 percent<sup>1</sup>.

## 1.2. The World Bank, WEF, GSMA and ITU Collaboration in COVID-19 Response

The World Bank in partnership with the ITU, GSMA, the global mobile industry association, and the World Economic Forum (WEF), hosted a high level dialogue to discuss an accelerated action plan to better leverage digital technologies and infrastructure in support of citizens, governments and businesses during the Covid-19 pandemic. The action plan discussed how to maintain connectivity by promoting network resilience, ensure access and affordability of digital services, support compliance with social distancing principles while providing vital connectivity, leverage e-health, telemedicine and Big Data to address the health crisis, and finally, ensuring institutional frameworks are fit for purpose<sup>2</sup>.

## 1.3. Digital Gender gap in Developing Countries

The 2019 ITU Facts and Figures report highlighted that the proportion of women using the Internet globally is 48 per cent compared to 58 per cent of men. Furthermore, in all regions of the world, more men than women were reported to be using the Internet, though the gap is small in developed countries but large in developing countries. Between 2013 and 2019, the gender gap hovered around zero in the Americas and has been shrinking in the CIS countries and Europe. However, in the Arab States, Asia and the Pacific, and Africa, the gender gap has been growing. The global gender gap has increased owing to the rapid growth in the number of male Internet users in developing countries<sup>3</sup>.

## 1.4. Three Major 5G Networks launched across Africa

Three major African markets announced plans to adopt 5G within the year 2020 – these are South Africa, Kenya and Uganda. In South Africa, Liquid Telecom is to launch the first 5G wholesale roaming service to major cities to enable wholesale operators to create innovative, ultra-fast and scalable digital services for their customers. On the other hand, Safaricom in Kenya is testing 5G and it could be rolled out to selected parts of the country anytime. Uganda's MTN in collaboration with ZTE

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1 <https://www.itu.int/en/ITU-D/Statistics/Documents/facts/FactsFigures2019.pdf>

2 <https://www.worldbank.org/en/news/statement/2020/04/21/the-world-bank-wef-gsma-and-itu-mobilized-in-the-fight-against-covid-19>

3 <https://www.itu.int/en/ITU-D/Statistics/Documents/facts/FactsFigures2019.pdf>

launched the 5G network early in 2020 and showcased its high-speed under the 60 MHz spectrum bandwidth with an actual rate of more than 1.494 Gbps, which can support a variety of applications<sup>4</sup>.

### **1.5. Timbu.com to invest USD 0.5 Million in Travel Startups in Southern African**

Timbu.com, a Mauritian travel site, announced plans to invest USD 25,000 in 20 travel startups in each Southern African country. The travel agency, focused on African destinations, is currently a market leader in Nigeria and other West African countries and now aims to grow its presence in Southern Africa by investing in travel startups. The Timbu funding will be exclusive to innovative startups solving real issues in the hospitality niche, with most of the focus being on startups around the curated travel (one of the fastest-growing segments of the travel industry). However, there are plans to expand into other niches down the line. The company confirmed that the need to begin investing in early-stage startups in Southern Africa was borne out of the need to grow the existing tech ecosystem in these countries and provide entrepreneurs with the necessary resources to grow these countries' startup scene<sup>5</sup>.

### **1.6. Free International Roaming among Central African states**

Member countries of the Central African Economic and Monetary Community (CEMAC) are considering eliminating international roaming charges levied on voice calls. Telecommunication officials from Cameroon, Central African Republic, Chad, Congo, Equatorial Guinea and Gabon also seek to cut interconnection rates among operators in the sub-region. CEMAC's strategy, dubbed vision 2025, aspires to make the sub-region an emerging and integrated economic space characterized by security, solidarity and good governance in the service of human development<sup>6</sup>.

### **1.7. Mobile Money Accounts Exceed One Billion Worldwide**

In the first quarter of 2020, the GSMA unveiled the 2019 annual 'State of the Industry Report on Mobile Money', offering an overview of the mobile money landscape. The report also looked at what one billion registered accounts means for the mobile money industry, mobile money users and the future of the mobile money ecosystem. For the first time, digital transactions represented the majority, 57 per cent, of mobile money interactions. The report further indicates that with 290 live services in 95 countries and 372 million active accounts, mobile money is entering the mainstream and becoming the path to financial inclusion in most low-income countries<sup>7</sup>.

### **1.8. GSMA releases guideline document for 5G deployment**

The GSMA convened some of the pioneers in 5G to develop a guidelines document that provides technological, spectrum and regulatory support to operators in the deployment of 5G Stand Alone (5G SA). The report highlights that 5G SA realises all of the expected capabilities for 5G, high throughput, low latency, high reliability and will enable operators to expose these network features to third parties<sup>8</sup>.

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<sup>4</sup> <https://www.itnewsafrica.com/2020/01/3-major-5g-networks-launch-across-africa/>

<sup>5</sup> <https://timbu.com/press/travel-site-timbucom-plans-to-invest-500k-in-early-stage-southern-african-travel-startups>

<sup>6</sup> <https://extensia-ltd.com/2020/03/03/central-african-states-edge-closer-to-free-roaming/>

<sup>7</sup> <https://www.gsma.com/sotir/wp-content/uploads/2020/03/GSMA-State-of-the-Industry-Report-on-Mobile-Money-2019-Full-Report.pdf>

<sup>8</sup> <https://www.gsma.com/newsroom/press-release/5g-stand-alone-to-become-reality/>

## 2.0. Selected Local Developments in the ICT Sector

### 2.1. Issuance and Renewal of Licences to Operators in the ICT and Postal Sector

By the end of June 2020, there were a total of eighty nine (89) valid licences in the ICT sector compared to eighty seven (87) valid licences recorded at the end of June, 2019. The licences currently constitute fifty one (51) Network licences, thirty two (32) Service with Network licences and six (6) Service without Network licences.

Table 1: Valid Licences in the ICT Sector

Type of Licence	Market Segment	Number of Licences June, 2019	Number of Licences June, 2020
<b>Network (Service &amp; Facilities)</b>	International	4	3
	National	40	38
	Provincial	1	4
	District	5	6
<b>Service (With a Network- Category A)</b>	National	28	27
	Provincial	0	2
	District	2	3
<b>Service (Without a Network- Category B)</b>	National	7	6
	Provincial	0	0
	District	0	0
<b>Total</b>		<b>87</b>	<b>89</b>

By the end of June, 2020, the Authority had issued a total of thirty two (32) valid licenses to operators in the postal and courier services sector compared to twenty five (25) licences reported at the end of June, 2019. This growth was mainly driven by new licenced entities in the international and domestic market segments. (See Table 2).

Table 2: Licensed Postal Operators

Postal and Courier Licence	Number of Licences June, 2019	Number of Licences June, 2020
Public Postal Operator	1	1
International	14	18
Domestic	9	12
Local	1	1
<b>Total</b>	<b>25</b>	<b>32</b>

## 2.2. Trends in Electronic Money Transactions

The usage of electronic money services in Zambia continued to be on the rise mainly driven by sending and receiving of funds as well as payments for utility services such as electricity and water as well subscription to pay TV channels. Specifically, the value of electronic money transactions increased from ZMW 18.99 billion recorded in the first half of 2019 to ZMW 43 billion recorded in the first half of 2020 reflecting an increase of 126 percent. Similarly, the volume of electronic money transactions increased from 224 million transactions recorded in the first half of 2019 to 424 million transactions recorded in the first half of 2020 reflecting an increase of 89 percent (see Table 3). The rise in the value and volume of transactions could largely be explained by the general insistence by various stakeholders to use electronic platforms following the rise in the number of corona virus cases in the country.

Table 3: Trends in Volumes and Values of Electronic Money Transactions

	June 2018	June 2019	June, 2020	Percentage Change Year to date
Volumes (Number of Transactions 'Millions')	128	224	424	89%
Values (ZMW 'Million')	8,285	18,992	43,000	126%

Source: Bank of Zambia

## 2.3. Bank of Zambia releases measures for digital financial transfers

The Bank of Zambia in a press statement announced measures aimed at reducing cash transactions and facilitating increased use of mobile money transactions, with the objective of reducing Covid-19 transmissions through handling cash. To this effect, the electronic money issuers were not to charge person to person e-money transfers valued up to K150. Transaction and balance limits on agents and corporate wallets were also removed, while those for individuals, small-scale farmers and enterprises were adjusted. Furthermore, the Bank of Zambia also reduced the Zambia Interbank payment and settlement system (ZIPSS) processing fees so as to increase the use of Real Time Gross Settlement System<sup>9</sup>.

## 2.4. Introduction of Non-expiry bundles

MTN Zambia in January 2020 was among the first providers of mobile broadband services to launch a new range of non – expiry mobile data bundles dubbed Freedom bundles. The Freedom bundles were added to existing mobile data bundles to offer customers more choice and to contribute to digital inclusion in Zambia. This introduction means that MTN Zambia data customers can now load and use mobile data bundles that do not expire before they are exhausted. It is also anticipated that the addition will also contribute to better data adoption and digital inclusion in Zambia. Expiring data bundles were a key concern to many customers, leading to the company making adjustments<sup>10</sup>.

<sup>9</sup> [https://www.boz.zm/Press\\_statement\\_measures\\_covid19.pdf](https://www.boz.zm/Press_statement_measures_covid19.pdf)

<sup>10</sup> <https://www.itnewsafrika.com/2020/01/mtn-zambia-makes-non-expiry-mobile-data-bundles-available/>

## **2.5. Launch of Airtel Zambia Airtel TV**

Airtel Networks Zambia Plc launched the new Airtel TV App which is earmarked to allow customers to enjoy news on the go as well as other programming such as movies, music, reality shows, children's' shows as well as documentaries. The platform is planned to cover over 30 live channels and over 800 videos on demand with the number expected to increase in the course of the year. Airtel TV will be accessible to all Airtel customers both on prepaid and post-paid with a registered SIM and a data enabled handset or device and will be able to download the Airtel TV+ app from Google Play Store or Apple store<sup>11</sup>.

## **2.6. Zamtel and Zambia Railways signed Memorandum of Understanding to Digitalise rail operations**

Zamtel signed a Memorandum of Understanding (MoU) with Zambia Railways (ZRL) through which Zamtel will provide ZRL with Integrated Communication Solutions including voice and data. The partnership shall run along the line of Rail from Chililabombwe to Livingstone and the Zamtel Network will be integrated with the Zambia Railways network. Zamtel will further host ZRL's "094" number range on its Core Network to provide nationwide coverage on Data and Voice<sup>12</sup>.

## **2.7.FSD Zambia to Distribute Cell Phones in Rural Areas**

The Zambia Financial Sector Deepening (FSD Zambia) made positive strides to ensure small savings groups remained afloat during the global corona virus pandemic. In this regard, FSD Zambia began its collaboration with ZICTA and the Mobile Network Operators to promote digital financial transactions aimed at minimizing the use of cash by members of the savings groups. Therefore, to increase digital financial services, FSD Zambia and its partners began a process of distributing cell phones and solar chargers to savings groups in rural communities<sup>13</sup>.

## **2.8. World Bank diagnostic report recognized Zambia's strides in digital transformation**

According to the World Bank diagnostic report released in the first half of 2020, Zambia made significant strides on its path to digital transformation over the past few years. The report assesses Zambia's strengths and weaknesses with respect to five pillars that together form the foundation upon which the benefits of digital transformation can be realized. Progress was particularly evident in digital infrastructure, digital financial services, and digital platforms, while more significant gaps remain in digital skills and digital entrepreneurship. The report also acknowledged that technology can play an important role as Zambia advances its vision for economic transformation and can have a transformative effect on the delivery of public services<sup>14</sup>.

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11 <https://www.telecompaper.com/news/airtel-zambia-launches-airtel-tv-service--1324402>

12 <https://africabusinesscommunities.com/tech/tech-news/zamtel-inks-deal-with-zambia-railways-to-boost-communication-efficiency/>

13 <https://www.fsdzambia.org/news-item/press-release-fsd-zambia-launches-covid-19-guidelines-for-savings-groups/>

14 <https://openknowledge.worldbank.org/handle/10986/33806>

## 3.0. Developments in the Macroeconomic Environment and their Implications

### 3.1. Economic Growth

The IMF projects that the economy will grow by negative 4.2 percent in 2020 from the earlier projection of 3.6%<sup>15</sup>. Underlying this outlook is the projected contraction of output in tourism, wholesale and retail trade, construction, manufacturing, mining as well as energy sectors. The Central Bank in their latest monetary policy committee statement indicated that the substantial decline in consumer and investment spending due to disruptions in business operations are expected to continue to constrain economic growth in the medium term. The reduction in the size of the economy implies an anticipated decline in demand for ICT and postal services as well as a slowdown in investments related to these services.

Figure 1: GDP Growth Rates; 2010- 2022



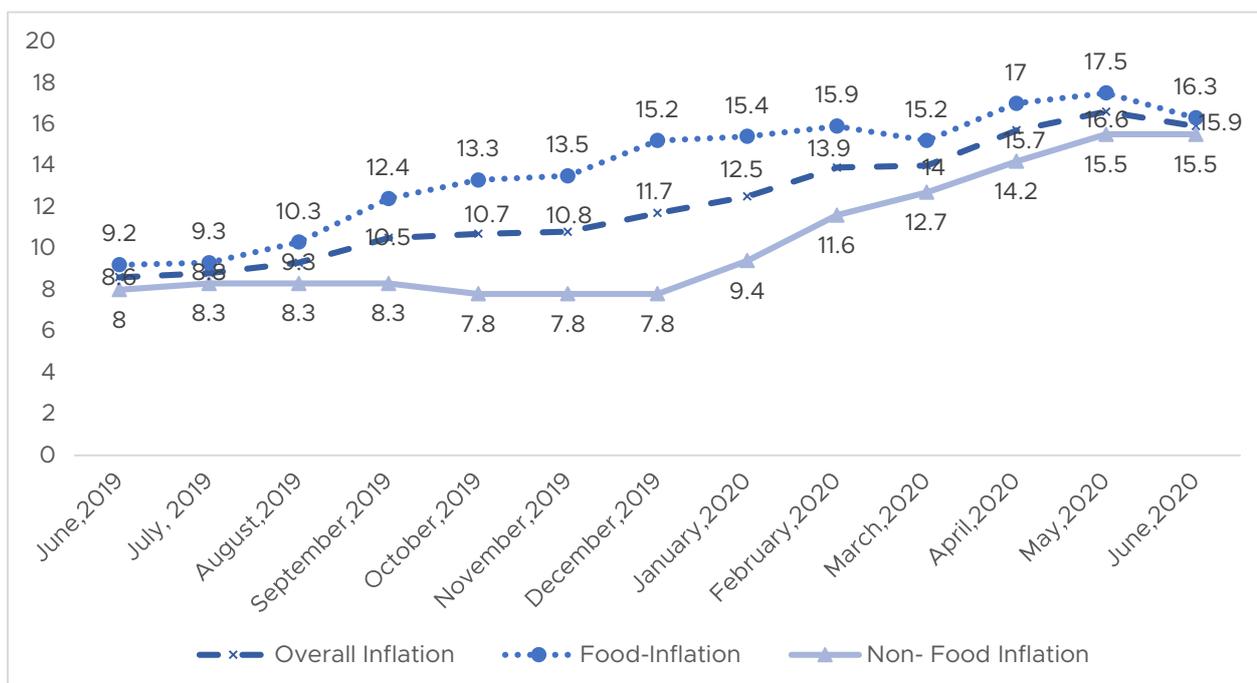
Source: Constructed using Bank of Zambia data

### 3.2. Inflation Rate Performance

<sup>15</sup> <https://www.imf.org/en/News/Articles/2020/07/15/pr20260-zambia-imf-staff-completes-virtual-mission>

The year-on-year inflation rate as measured by the all items Consumer Price Index (CPI) decreased from 16.6 percent recorded in May 2020 to 15.9 percent recorded in June 2020. This means that on average, prices of goods and services increased by 15.9 percent between June 2019 and June 2020 (see figure 3). The year-on-year food inflation rate for June 2020 was recorded at 16.3 percent compared to 17.5 percent recorded in May 2020, indicating a decrease of 1.2 percentage points. On the other hand, the year-on-year non-food inflation rate for June 2020 was recorded at 15.5 percent which was similar to the rate recorded in May 2020. The overall inflation rate movements reflect that pricing of some ICT related inputs are on the rise which poses some upward pressure on the pricing of ICT services on account of the rising costs of inputs in the value chain.

Figure 2: Inflation Performance; June, 2019 - June, 2020



Source: Constructed using Zambia Statistics Agency Data

### 3.3. Performance of the Foreign Exchange Market

The local currency depreciated against most of the major trading currencies during the first half of 2020. Specifically, the Zambian Kwacha depreciated from ZMW14.20 per USD in January, 2020 to ZMW18.14 per USD at the end of June, 2020. Similarly the Zambian Kwacha depreciated from ZMW16.64 per GBP at the end of June, 2019 to ZMW1.05 per ZAR at the end of June, 2020<sup>16</sup>. The overall depreciation in the domestic currency has broadly affected operators in the ICT sector as all imported inputs including international termination rates, international leased capacity as well as other international carriers' costs among others have increased in cost. Additionally, the domestic price of local inputs has increased following pass through effects of depreciation through inflation. Ultimately the depreciation is likely to have an adverse effect on the cost of operations for the operators in the ICT sector.

<sup>16</sup> <https://www.boz.zm/monetary-and-financial-statistics.htm>

Figure 3: Exchange Rate Performance; June, 2019 – June, 2020

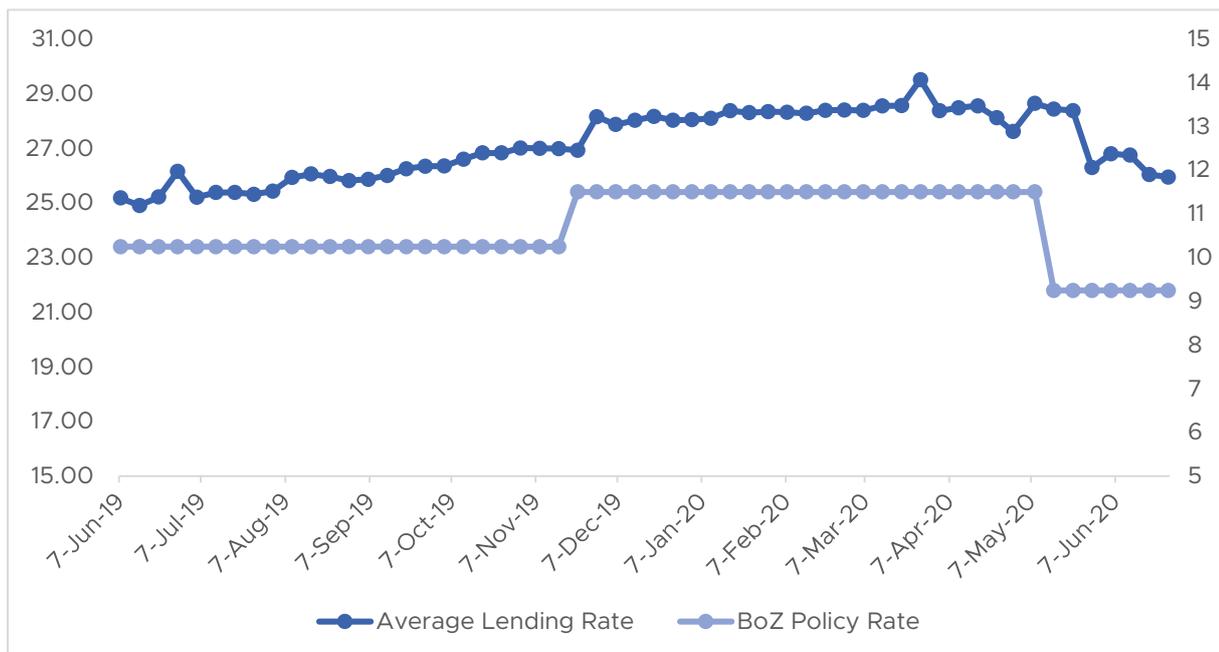


Source: Constructed using Bank of Zambia data

### 3.4. Access to Commercial Bank Credit

The average commercial bank lending rates increased by 0.81 percentage points from 25.18 percent reported at the end of June, 2019 to 26.04 percent recorded at the end of June, 2020. Conversely, during the same period, the policy rate by the Central Bank declined by 1.0 percentage points from 10.25 percent at the end of June, 2019 to 9.25 percent prevailing at the end of June 2020. The increase in interest rates has potential to increase the cost of communication through the costs being passed on to consumers if operators finance their investments using local funds. The rise in the average commercial bank lending rates also have potential to slow down investments in the sector. However, the positive efforts by the central bank to lower the policy rate have in part slowed down the rate of increase in the average commercial Bank lending rates which in turn could save to stimulate investments and growth prospects.

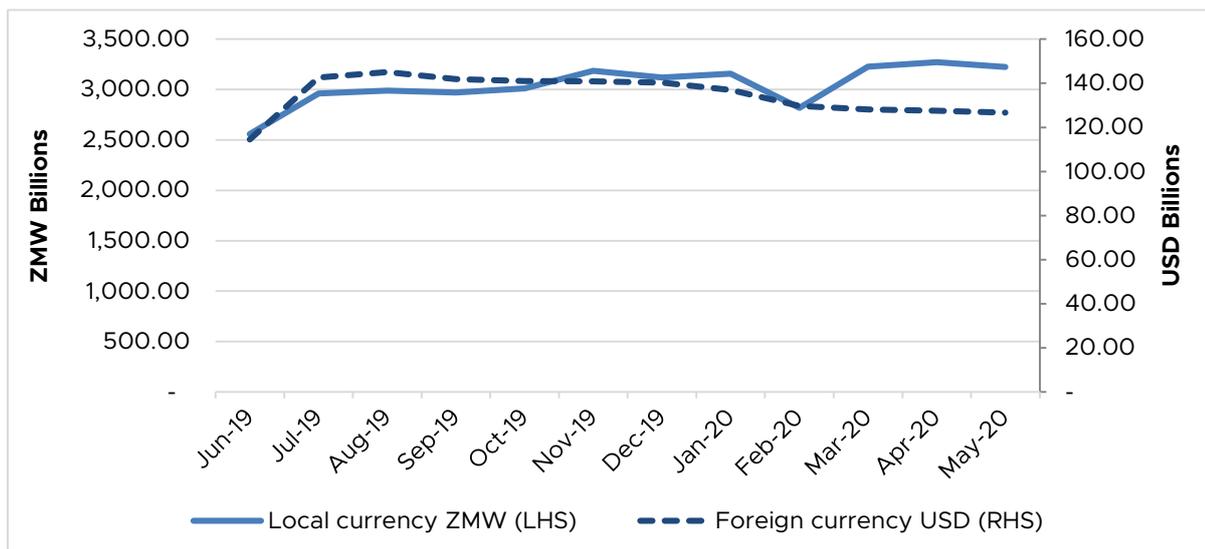
Figure 4: Commercial Bank Lending Rates and Policy Rates; June, 2019-June, 2020



Source: Constructed using Bank of Zambia data

However, commercial bank credit to the transport, storage and communication sector increased by 26.06 percent for local currency loans and 10.60 percent for foreign currency loans. Specifically, local currency loans from the commercial banks to the transport, storage and communication sector increased from ZMW 2.6 billion to ZMW 3.2 billion while foreign currency loans increased from USD 114 million to USD 126 million between June, 2019 and May, 2020 (See figure 5).

Figure 5: Commercial Bank Credit to Transport, Storage and Communication Sector; June, 2019 - May, 2020



Source: Constructed using Bank of Zambia data

### 3.5. Disruption in Aviation

A number of major international airlines as well as all the local airlines have suspended the movement of flights during the COVID pandemic<sup>17</sup>. The Disruptions in Air travel have had an adverse impact on the movement of international parcels from abroad to the local courier operators. The disruption in aviation also poses limitations on international travel for experts as well as capital items moved using air cargo.

<sup>17</sup> <https://www.bloomberg.com/graphics/2020-china-coronavirus-airlines-business-effects/>

## 4.0. Performance of the ICT Sector

### 4.1. Mobile Telephone Services Market

#### 4.1.1. Active Mobile Network Subscriptions

The total number of active mobile network subscriptions increased from 16.3 million subscriptions at the end of June, 2019 to 17.9 million subscriptions at the end of June, 2020 reflecting an improvement of 10.0 percent (See **Table 4**). The growth in mobile network subscriptions represents an improvement in the mobile penetration rate, defined as the ratio of the total number of active subscriptions to the total population, from 93.8 percent recorded at the end of June, 2019 to 100.2 percent recorded at the end of June, 2020. This performance is mainly explained by increased investments in telecommunication coverage infrastructure, heightened competition among the service providers and the increased adoption of machine-to-machine (M2M) services such as point of sale machines and other data-enabled devices that utilize sim cards. The increased uptake of ICT services among both corporate and individual customers during the COVID-19 pandemic also complemented this surge in adoption.

Table 4: Trends in Mobile Subscription and Penetration Rates: June 2019 to June, 2020

Subscription	Jun-19	Dec-19	Jun-20	YTD Percent Change
Total Subscription	16,298,228	17,220,607	17,922,770	<b>9.97%</b>
Penetration per 100	93.8	99.1	100.2	

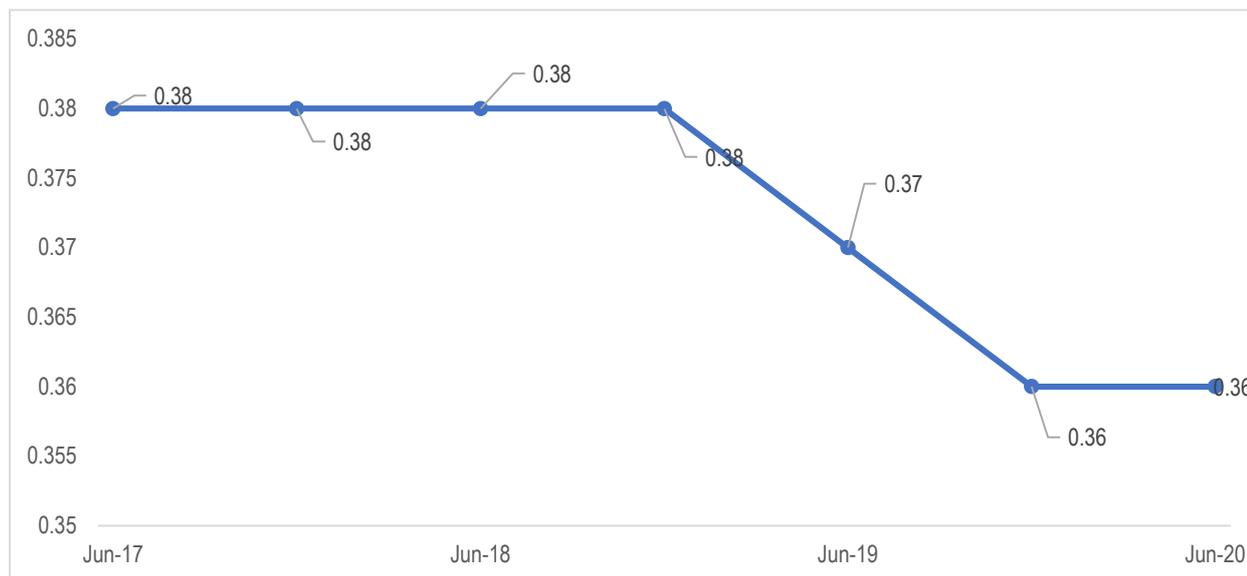
Source: ZICTA

#### 4.1.2. Concentration of Mobile Network Subscription

The market experienced minimal variation in the competition landscape among the three mobile network operators as evident from the trend in the Herfindahl-Hirschman Index<sup>18</sup> (HHI). The HHI observed very minor movements in the period June 2019 to June 2020 ranging between 0.37 and 0.36. This is consistent with movements in market shares among the three operators reflecting a negligible shift in concentration (see Figure 6). There remains scope to further deepen the competition landscape by having a fairer spread in the share of subscribers across the three MNOs through more aggressive participation by the players on the market as well as policy and regulatory interventions.

<sup>18</sup> The Herfindahl-Hirschman Index is a composite measure of concentration computed as the sum of squared shares firm in total subscription. Its value lies between 0 and 1 with magnitude signaling a decrease in competition or concentration of market power in a few firms.

Figure 6: Trends in the Herfindahl-Hirschman Index in Subscription: June 2014 - June 2020



Source: ZICTA

#### 4.1.3. Mobile Voice call Traffic Volumes

Domestic incoming mobile voice traffic, defined as the total number of minutes received on domestic mobile networks from another domestic mobile network, increased marginally from 1.11 billion minutes recorded in the first half of 2019 to 1.115 billion minutes reported in the first half of 2020 reflecting an improvement of 0.4 percent. Similarly, the total domestic outgoing minutes, defined as the total number of minutes originating on domestic mobile networks and terminating either within the mobile cellular network or outside on another local mobile cellular network increased from 7.9 billion minutes recorded in the first half of 2019 to 9.9 billion minutes reported in the first half of 2020, representing an improvement of 26.1 percent (see Table 5). These improvements are partly on account of the sustained discounted minutes offered on bundled pricing offers by all the operators. The increases in the domestic traffic could partly be explained by heightened volume based bundled price offers on the market that have received wide adoption as well as the increased number of mobile subscriptions. In addition, the usage increased during the COVID -19 pandemic as most people were working remotely.

Table 5: Trends in Domestic Traffic Minutes: June 2019 to June 2020

Outgoing	2019		2020	YTD Percent Change
	Jun-19	Dec-19	Jun-20	
Total Minutes	<b>7,870,972,396</b>	<b>9,335,369,671</b>	<b>9,923,712,686</b>	<b>26.1%</b>
Incoming	2019		2020	YTD Percent Change
	Jun-19	Dec-19	Jun-20	
Total Minutes	<b>1,110,574,751</b>	<b>1,011,035,765</b>	<b>1,115,101,174</b>	<b>0.4%</b>

Source: ZICTA

Incoming international mobile voice traffic declined from 15.8 million minutes reported in the first half of 2019 to 10.5 million minutes reported in the first half of 2020 reflecting an overall reduction of 33.6

percent. Similarly, outgoing international mobile voice traffic declined by 54.9 percent, from 17.6 million minutes reported in the first half of 2019 to nearly 8.0 million minutes recorded in the first half of 2020 (Table 6). This performance could partly be explained by the increasing adoption of OTT applications among others for making international voice and video calls. The decline was partly attributed to the increasing adoption of internet-based applications like WhatsApp, facetime, Skype and Viber to make international voice calls. In addition, adverse practices such as SIM boxing, a consequence of least cost routing could also explain the decline in international incoming traffic.

Table 6: Trends in International Traffic Minutes: June 2019 to June 2020

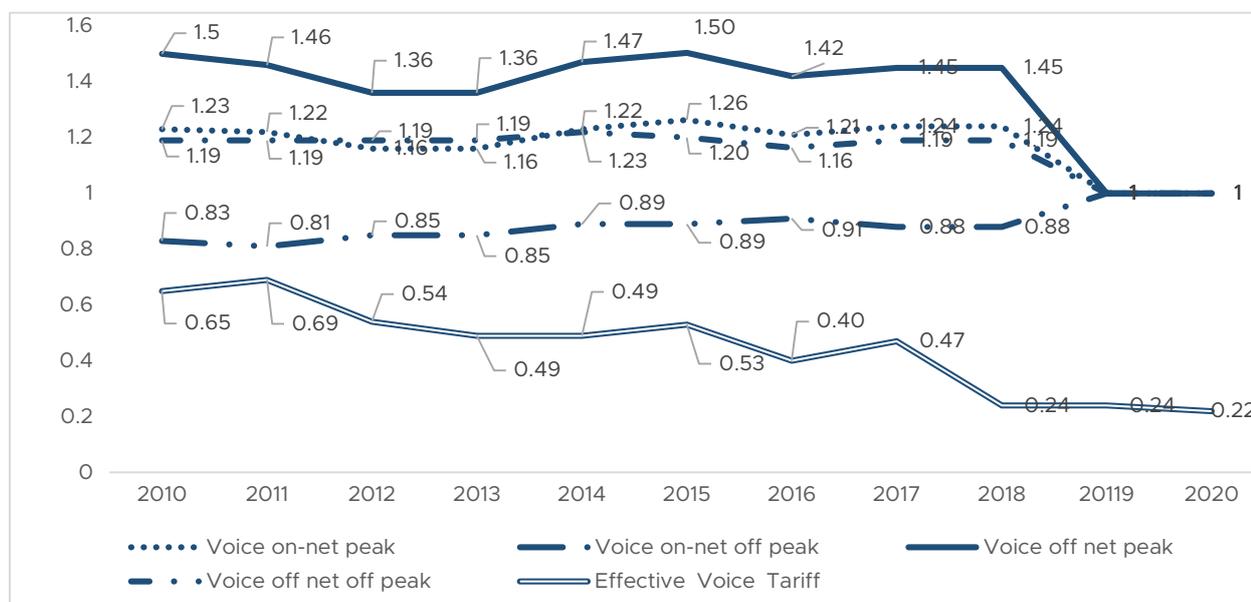
Incoming	2019		2020	YTD Percent Change
	Jun-19	Dec-19	Jun-20	
Total Minutes	<b>15,775,086</b>	<b>14,021,132</b>	<b>10,474,784</b>	<b>-33.6%</b>
Outgoing	2019		2020	Year to date Percent Change
	Jun-19	Dec-19	Jun-20	
Total Minutes	<b>17,649,143</b>	<b>13,953,354</b>	<b>7,966,516</b>	<b>-54.9%</b>

Source: ZICTA

#### 4.1.4. Mobile Voice Tariffs

Following the conclusion of the Cost of Service Study for Next Generation Networks, ZICTA through a determination made in March, 2019 reduced the interconnect rate from ZMW 0.15 to ZMW 0.11. This is expected to reduce the cost of communication across networks among consumers. Further, all the operators reduced their headline tariffs at the beginning of June, 2019 to a maximum of ZMW 1.00 based on the findings of the cost of service study. The effective tariffs remains below ZMW 0.25 on account of the bundled offers that provide discounted minutes.

Figure 7: Mobile Voice Headline Tariffs 'Per Minute in ZMW': 2010-2020



Source: ZICTA

The average headline tariffs charged in Zambia were relatively competitive when compared to the tariffs charged for similar services in other countries in the region. Based on an assessment of twelve (12) comparable countries in the region, Zambia’s ranking on the cost of headline tariffs relative to other countries is highlighted below:

- i. Fifth (5<sup>th</sup>) on ‘Off net’ off Peak calls;
- ii. Fourth (4<sup>th</sup>) on ‘Off net’ on Peak calls;
- iii. Fourth (4<sup>th</sup>) on ‘On net’ on Peak calls; and
- iv. Fifth (5<sup>th</sup>) on ‘On net’ on off Peak calls

The differences in the tariffs applied are partly on account of the differentiated consumption taxes applied across the countries as well as movements in the exchange rates. As operators adopt more cost effective technologies and competition continues to deepen on the market, margins are expected to reduce coupled with cost effective delivery of services which could lead to further reduction in pricing.

Table 7: Benchmarking of Mobile Voice Tariffs in USD

Country	ON-NET – Peak	Rank	ON-NET - Off-Peak	Rank	OFF-NET - Peak	Rank	OFF-NET - Off-Peak	Rank
Botswana	0.11	9	0.09	10	0.10	9	0.08	7
Lesotho	0.16	11	0.13	11	0.16	11	0.13	11
Malawi	0.11	9	0.05	4	0.13	10	0.07	6
Mozambique	0.08	5	0.08	7	0.08	5	0.08	7
Namibia	0.09	7	0.09	8	0.09	7	0.09	9
South Africa	0.09	7	0.09	8	0.09	7	0.09	9
Swaziland	0.08	5	0.06	5	0.08	5	0.05	4
Tanzania	0.02	1	0.01	1	0.02	1	0.01	1
Zambia	<b>0.06</b>	<b>4</b>	<b>0.06</b>	<b>5</b>	<b>0.06</b>	<b>4</b>	<b>0.06</b>	<b>5</b>
Zimbabwe	0.16	11	0.16	12	0.16	11	0.16	12
Kenya	0.03	2	0.02	2	0.03	2	0.03	2
Rwanda	0.04	3	0.04	3	0.04	3	0.04	3

Source: Operators’ websites

#### 4.1.5. Investment in Telecommunication Infrastructure

The total number of telecommunication sites that were operational in the country increased from 8,227 reported at the end of June, 2019 to 10,338 reported at the end of June, 2020 representing an increase of 25.7 percent. The largest proportion of the sites in 2020 continued to be 2G sites accounting for 39.5 percent of the total followed by 3G sites which accounted for 32.9 percent of the total number of sites. Only 27.6 percent of the telecommunication sites were 4G/LTE sites. However, the proportion of 4G/LTE sites continued to increase overtime, from 2,045 sites reported at the end of June, 2019 to 2,849 sites reported at the end of June, 2020 representing the largest improvement of 39.3 percent (see **Table 8**).

Table 8: Distribution of Telecommunication Sites

	June, 2019	December, 2019	June, 2020	YTD Percent Change
2G	3,428	5,081	4,087	<b>19.2%</b>
3G	2,754	2,906	3,402	<b>23.5%</b>
4G/LTE	2,045	2,316	2,849	<b>39.3%</b>
Total	8,227	10,303	10,338	<b>25.7%</b>

Source: ZICTA

#### 4.1.6. Short Message Service Traffic

The Short Message Service (SMS)<sup>19</sup> traffic declined by 14.4 percent on a year to date basis, from 6.2 billion SMSs reported in the first half of 2019 to 5.2 billion SMSs in the first half of 2020 (see Table 9). The general decline in SMS traffic volumes could partly be explained by the increasing OTT applications.

Table 9: Trends in SMS Traffic: June 2019 to June 2020

SMS Traffic	Jun-19	Dec, 2019	Jun-20	YTD Percent Change
Total	<b>6,178,907,228</b>	<b>5,127,721,066</b>	<b>5,292,151,264</b>	<b>-14.4%</b>

Source: ZICTA

#### 4.1.7. Mobile Cellular Revenue Performance

The mobile telephone subsector reported a 12.8 percent increase in revenue performance in the first half of 2020 compared to the same period in 2019. Revenue increased from ZMW 2.1 billion in the first half of 2019 to ZMW 2.4 billion during the first half of 2020 on a year to date basis (see Table 10).

Table 10: Trends in Revenue Mobile Telephony market: June 2019-June 2020

Revenue (ZMW'000)	June 2019	December 2019	June 2020	YTD Percent Change
Total	<b>2,138,321.55</b>	<b>2,465,529.74</b>	<b>2,411,823.93</b>	<b>12.8%</b>

Source: ZICTA

Airtime sales and data sales continued to account for the largest proportion of revenue for the mobile telephone sector. However, a noted reduction in call termination fees as well as sales of

<sup>19</sup> Only SMS is reported by the MNOs. MMS is no longer reported as most have discontinued the service due to the proliferation and ubiquitous use of the Internet.

products of 13.2 percent and 35.6 percent respectively were observed during the period under review (see Table 11).

Table 11: Mobile Telephone Revenue by Type: June 2019 to June 2020

Revenue by Service (ZMW'000)	Jun-19	Dec-19	Jun-20	YTD Percent change
<b>Airtime</b>	1,090,219.70	1,223,706.67	1,148,824.83	<b>5.4%</b>
<b>Call termination</b>	170,253.00	167,422.00	147,808.00	<b>-13.2%</b>
<b>Data</b>	500,398.18	648,485.01	684,073.77	<b>36.7%</b>
<b>Fees</b>	103,635.98	119,469.73	117,909.15	<b>13.8%</b>
<b>Leased sites &amp; transmission</b>	21,588.00	20,789.00	23,917.00	<b>10.8%</b>
<b>Other</b>	81,091.00	87,376.00	91,175.00	<b>12.4%</b>
<b>Roaming</b>	41,860.00	51,539.00	54,426.00	<b>30.0%</b>
<b>Sales of products</b>	22,436.00	25,325.00	14,452.00	<b>-35.6%</b>
<b>SMS</b>	41,845.00	50,074.00	48,252.00	<b>15.3%</b>
<b>SMS termination</b>	9,953.00	12,619.00	21,506.00	<b>116.1%</b>
<b>VAS</b>	55,041.67	58,724.33	59,480.17	<b>8.1%</b>
<b>Total Revenue</b>	<b>2,138,321.53</b>	<b>2,465,529.74</b>	<b>2,411,823.92</b>	<b>12.8%</b>

Source: ZICTA

## 4.2. Fixed Telephony Sub Sector

### 4.2.1. Fixed Telephone Subscription

There was a notable increase in the subscriptions of fixed telephone (PSTN<sup>20</sup>) services during the period under review. Between June 2019 and June 2020, subscription rose from nearly 71 thousand lines to 76 thousand lines reflecting a 7.0 percent increase respectively. The performance reflects an improvement in fixed telephone penetration from 0.41 percent to 0.42 percent over the review period (see Table 12).

Table 12: Active PSTN Lines and Penetration Rates: June 2019 to June 2020

Subscription		Jun-19	Dec-19	Jun-20	YTD Percent Change
<b>Post-paid Subscribers</b>	Number	64,049	67,062	66,655	<b>4.1%</b>
	Share (%)	90.5	69.3	88.0	
<b>Pre-Paid Subscribers</b>	Number	6,707	29,657	9,087	<b>35.5%</b>
	Share (%)	9.5	30.7	12.0	
<b>TOTAL</b>		<b>70,756</b>	<b>96,719</b>	<b>75,742</b>	<b>7.0%</b>
<b>PSTN Penetration per 100</b>		<b>0.41</b>	<b>0.56</b>	<b>0.42</b>	

Source: ZICTA

<sup>20</sup> Public switched Telephone Networks

### 4.3. Fixed and Mobile Internet Services

#### 4.3.1. Fixed and Mobile Internet Subscription

The total number of active internet subscriptions in the country increased from 9.1 million subscriptions recorded in the first half of 2019 to 9.5 million subscriptions reported at the end of June, 2020 reflecting an improvement of 3.6 percent. Consequently, the internet penetration rate increased from 52.6 percent to 52.9 percent between June, 2019 and June, 2020. This improvement was mainly attributed to higher investments among service providers leading to extensive coverage of 3G/4G networks and the increased adoption of emerging technologies such as 3G and 4G/LTE. The increased roll out of networked devices such as point of sale machines has in part also influenced the growth of mobile internet uptake. Further, the decision by most corporate entities to have staff work remotely has increased uptake and usage of internet services. It is also worth noting that fixed internet subscriptions increased quite significantly during the review period. However, nearly 99 percent of the internet users are mobile internet users (Table 13). They access internet services through SIM card based devices such as smartphones, dongles and many other devices. This performance could partly be explained by the ease of accessing mobile internet services and the relatively lower cost of accessing the services compared to fixed internet services. In addition, the roll out of infrastructure needed for fixed internet services is relatively less extensive.

As LTE and 3G technologies become more widespread on local networks, uptake of mobile internet services has continued to increase. The increasing availability of affordable handheld devices such as smart phones and tablets supported by a favourable tax rate applied on such devices has also supported growth in mobile internet usage. Further, increased adoption of OTTs such as WhatsApp as well as a surge in uptake and intensity of usage for social media platforms like Facebook, tweeter, Instagram continues to drive the growth in mobile internet usage in the country. In addition, traditional Internet service Providers are now providing LTE mobile internet services to their clients.

Subscription to fixed internet services increased by 43.3 percent from nearly 70 thousand subscribers reported in June, 2019 to over 100 thousand subscribers in June, 2020. The majority of users with fixed internet subscription are corporates mainly on account of high cost of Internet service characterized by higher capacities and reliability of service. The cost of fixed Internet services serves as a deterrent to most potential household users. However, most households with internet service are using mobile Internet services. In addition, providers of mobile internet services are also providing enterprise solutions leading to some corporates switching.

Table 13: Trends in Internet Usage: June 2019 to June 2020

Internet Usage	June, 2019	December, 2019	June, 2020	Change (%) YTD
Internet Subscription – Fixed	70,104	89,533	100,477	<b>43.3%</b>
Fixed Internet subscriptions Per 100 Inhabitants	0.4	0.52	0.56	
Mobile Internet Subscriptions	9,067,442	9,140,666	9,366,639	<b>3.3%</b>
Mobile Internet subscriptions Per 100 Inhabitants	52.2	52.6	52.4	

Internet Subscriptions – Fixed & Mobile Internet	9,137,546	9,230,199	9,467,116	<b>3.6%</b>
Internet Subscriptions Per 100 Inhabitants	<b>52.6</b>	<b>53.1</b>	<b>52.9</b>	

Source: ZICTA

#### 4.3.2. Mobile Internet Service Providers Capacity and Utilisation

The Lit/equipped capacity for the first half of 2020 among the mobile cellular network operators increased by 29.1 percent to reach 102,378 Megabits per second (Mbps) from 79,290 Mbps reported in the first half of 2019. Overall, capacity usage increased by 56.9 percent during the review period. The throughput volume of data increased significantly during the review period. The volume increased by nearly 95 percent in the first half of 2020 to reach 51,253 terabytes (TB) from 26,327 TB in the first half of 2019.

Table 14: Trends in Network Capacity and Utilisation for Mobile Internet Providers: June 2019 to June 2020

	Lit (Mbps)	Usage (Mbps)	Volume (TB)
Jun-2020	<b>102,378.00</b>	<b>67,200.00</b>	<b>51,253.44</b>
Dec-2019	<b>71,290.00</b>	<b>43,163.00</b>	<b>34,937.12</b>
Jun- 2019	<b>79,290.00</b>	<b>42,833.00</b>	<b>26,327.14</b>
	<b>29.1%</b>	<b>56.9%</b>	<b>94.7%</b>

Source: ZICTA

## 4.4. Passive Infrastructure

### 4.4.1. Ownership of Tower Infrastructure

The total number of telecommunication towers in Zambia increased from 2,462 reported at the end of the first half of 2019 to 3,245 reported at the end of the first half of 2020, representing an increase of 15.1 percent (see Table 15).

Table 155: Trends of Tower Infrastructure: June 2019 to June 2020

	Jun-19	Dec-19	Jun-20	YTD Percent Change
Total	<b>2,820</b>	<b>3,235</b>	<b>3,245</b>	<b>15.1%</b>

Source: ZICTA

## 4.5. Transmission Network Market

### 4.5.1. Network Capacity and Utilisation in the Transmission Network Market

The total available capacity among wholesale carriers increased from 526.2 Gigabits per second (Gbps) at the end of June, 2019 to 632.7 Gbps at the end of June 2020 reflecting an improvement of 20.2 percent on a year to date basis. Similarly, the capacity utilization increased from 81.0 Gbps in June 2019 to 92.5 Gbps in June 2020 representing an improvement of 14.2 percent on a year to date basis.

Table 16: Trend in Network Transmission Capacity and Utilisation: June 2019 to June 2020

Transmission Capacity and Utilization		Total
Jun-20	Capacity (Gbps)	632.7
	Utilisation (Gbps)	92.5
Dec-19	Capacity (Gbps)	622.0
	Utilisation (Gbps)	79.7
Jun-19	Capacity (Gbps)	526.2
	Utilisation (Gbps)	81.0
YTD Percent Change	Capacity (Gbps)	<b>20.2%</b>
	Utilisation (Gbps)	<b>14.2%</b>

Source: ZICTA

## 4.6. ICT Sector Employment

Employment opportunities created by licensees has continued to drop overall from June 2019 to June 2020. In June 2020, the total number of persons employed among licensees decreased by 15.0 percent from June 2019 on a year to date basis.

Table 17: Trend in Employment in ICT Subsectors: June 2019 to June 2020

Employment	Jun-19	Dec-19	Jun-20	YTD Percent Change
Total	<b>2,062</b>	<b>1,885</b>	<b>1,753</b>	<b>-15.0%</b>

Source: ZICTA

## 5.0. Mid-Year Sectorial Policy and Regulatory Review

ZICTA periodically undertakes qualitative policy and regulatory reviews with a view to identify any constraints or positive developments on the market. The exercise is based on qualitative interviews with selected operators on the market. In June, 2020, the Authority undertook a review which would inform part of its focus areas in the second half of 2020.

### 5.1. Positive Factors Influencing Growth on the Market

- a) The growth in demand for ICT services** was highlighted by operators as an important attribute driving their operations especially during the COVID-19 pandemic when usage increased. Particularly, the growing demand for broadband services was identified as an important avenue for growth and business sustainability.
- b) Investment in Telecommunication Infrastructure:** Operators indicated that continued investment in their networks to extend their reach and improve on reliability of their network was a major positive attribute to growth in the first half of 2020.
- c) Introduction of Innovative Service Offers:** Some operators reported that they had made significant progress in extending their service offers. Particularly, new services related to mobile television as well as VOIP are new opportunities identified by the operators.

### 5.2. Constraints Growth on the Market

- a) Damage to Fibre infrastructure:** There was a reported challenge related to cutting of existing fibre networks related to the road construction projects currently being deployed that has affected quality of service delivery.
- b) Restrictions on international VOIP:** Operators continued to highlight the challenges with the licensing framework that limited their provision of international voice services using VOIP platforms.
- c) Uncompetitive Co-location costs:** This was mainly attributed to the highly concentrated market for passive infrastructure as well as the practice of charging for local services in US dollars while the users of the services quote prices in kwacha for their clients.
- d) Higher tax incidence in the ICT sector.** Notably, the extension of excise duties applied on airtime to fixed internet services in 2019 was noted as a major constraint. Operators also cited the highest corporate tax rate of 40 percent applied on telecommunication companies as burdensome.
- e) Macro-Economic Instability:** Operators cited challenges associated with the macroeconomic stability especially regarding the exchange rate volatility. It was noted that the fluctuations in the exchange rate posed uncertainty on the outlook for their operations.
- f) Rising energy Costs:** The continued load management for electricity posed challenges related to costs as operators needed to substitute the energy source for diesel to maintain their operations.

### 5.3. Proposals for Enhancing the Business Environment

- a) **Review of the Tax burden in the ICT sector:** Operators indicated that it would be important for the Government to consider reviewing the tax burden placed on the ICT sector with a view to stimulate investment, employment and guarantee the sustainability of ICT operators. The ISP urged ZICTA to take a more proactive role in lobbying government to provide some relief on taxation. It was equally proposed that the extension of excise duty on airtime could be reviewed.
- b) **Review pricing for Passive Infrastructure:** The Authority must encourage other players in the passive infrastructure subsector as well as conclude the review the pricing of the services in dollars.
- c) **Conclude the Review of the Licensing Framework:** The Authority was urged to conclude the process of reviewing the licensing framework to ensure that the identified gaps or challenges are addressed.
- d) **Enhanced coordination among stakeholders in Infrastructure Deployment:** Operators encouraged the Authority to enhance the coordination among stakeholders in the deployment of infrastructure such as roads with communication infrastructure such as fibre.

## 6.0. Outlook for the ICT Sector in the Second half of 2020

- a) Growth in ICT Uptake and Deployments:** The ICT sector is expected to continue on its positive growth trajectory in the subsequent review period amidst some notable risks. Growth is expected to mainly be driven by increased demand for data services among consumers. The Authority forecasts that the mobile subscriber base would close at over 18.2 million subscriptions by the end of 2020. Investments into infrastructure especially 4G/LTE sites among the mobile network operators is likely to drive increased adoption of broadband services.
- b) Macro-economic outlook and its implications:** There are noted risks in the macro-economic environment that could dampen the growth prospects in the sector. Particularly, the sustained depreciation of the local currency has potential to spur inflationary pressure that would adversely affect the cost inputs for operators. The downward revision of the economic growth prospects to -4.2 percent is also likely to stifle market expectations regarding uptake and usage and could extend to investment decisions.
- c) Cyber Related Risks:** Cyber related frauds especially on mobile money accounts are expected to persist. The sms frauds which are targeted at mobile money users are increasingly drawing the biggest attention on consumer awareness and consumer protection. However, as adoption of ICTs increases the diversity and intensity of these risks is expected to persist.
- d) Investment in Infrastructure:** The continued construction of the 1009 communication towers coupled by investments in fibre and telecommunication sites by operators is expected to extend coverage and improve network optimisation and stability. Extension of fibre circuits by some operators is also expected to open additional routes for redundancy. It is anticipated that a number of operators will investment in 3G/4G technologies aimed at extending coverage as well as improving quality of service.
- e) Product and Service Diversity:** Operators are also expected to continue introducing innovative product offerings for consumers to remain viable in the competitive environment. Operators with ownership of a fibre network as well as VOIP capabilities are expected to introduce their product offerings in the subsequent period initially focussing on corporate business.
- f) Issuance of Spectrum in the 800 MHz band:** ZICTA is expected to issue a call for applications for the spectrum in the 800 MHz band that emerged from the digital migration process. The spectrum is anticipated to assist with improving quality of service and the deployment of more extensive networks at cost effective rates.
- g) Issuance of Licence for Fourth Mobile Network Operator:** ZICTA is scheduled to issue a call for applications for a network license in the international market segment and a service licence in the national market segment.



# ZICTA

ADVANCING THE NATION  
TO A DIGITAL SOCIETY

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