2018 NATIONAL SURVEY ON ACCESS AND USAGE OF INFORMATION AND COMMUNICATION TECHNOLOGIES BY HOUSEHOLDS AND INDIVIDUALS

A Demand Side Assessment of Access and Usage of ICTs in Zambia

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ZICTA
ZAMBIA INFORMATION AND COMMUNICATIONS TECHNOLOGY AUTHORITY
www.zicta.zm

REPUBLIC OF ZAMBIA
Ministry of Transport and Communications
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PREFACE

It is my pleasure to present to you the findings of the 2018 National Survey on Access and Usage of Information and Communication Technologies (ICTs) by households and individuals in Zambia. This is the third wave of data collection undertaken in Zambia for one of the most comprehensive demand side assessments that focuses on various attributes of access and usage of ICTs. Prior surveys with a similar scope were undertaken in 2013 and 2015 by the Authority in collaboration with the Ministry of Transport and Communications and the Central Statistical Office.

A number of issues relating to access and usage of ICTs that build on the data collected in previous assessments were considered in the 2018 survey. These included but were not limited to the extent of ownership of ICT related devices, usage of ICT services as well as the quality of experience when using various ICT related services. The 2018 survey extended the scope of prior assessments as more detailed insights about gender and ICTs, as well as various attributes related to the management of electrical and electronic waste were investigated.

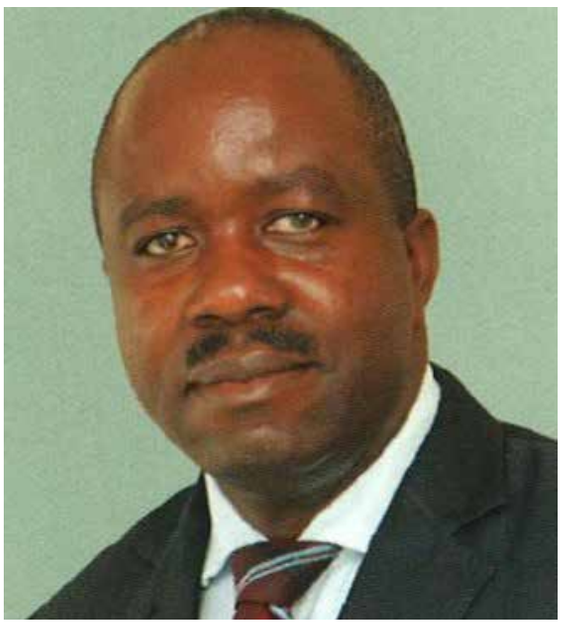
Notwithstanding, the survey collected information related to new developments related to digital financial services, risks connected to the online environment and the associated mitigation strategies and barriers to increased access and usage of ICTs. For the first time, an assessment of individuals' skills related to ICTs was also undertaken in 2018.

This survey is a critical resource that will inform the effectiveness of the various strategies adopted by many state and non-state actors in nurturing the digital society. The insights presented in the report provide input for measuring progress towards the attainment of various targets espoused in key national strategic documents such as the Seventh National Development Plan and the Vision 2030. The global 2030 Agenda for Sustainable Development Goals also places great importance on ICTs for development. Particularly, indicators covering six targets under Goals 4, 5, 9, and 17 reflect the priority placed on ICTs in achieving the global development agenda.

Undertaking demand side assessments of the magnitude and scope of the 2018 national survey on access and usage of ICTs is a costly exercise. The survey received financial support from the Government of the Republic of Zambia through the Zambia Information and Communications Technology Authority (ZICTA) and the Government of Sweden through the Swedish International Development Assistance. We would like to take this opportunity to appeal to other stakeholders to complement our efforts in undertaking similar assessments in the future. I am hopeful that you will find the insights highlighted in this report useful for shaping programmes and strategies aimed at leveraging on the full potential of ICTs for the achievement of socio-economic development for all.

Patrick M. Mutimushi
Director General
Zambia Information and Communications Technology Authority

FOREWORD



Since 2013, the Central Statistical Office (CSO) has been collaborating with the Zambia Information and Communications Technology Authority (ZICTA) in carrying out the Information and Communication Technology (ICT) Survey. The 2018 ICT Survey is the third in the series. The first Survey was conducted in 2013 and the second one in 2015. CSO as the focal point for national statistics has endeavoured to provide the requisite support in order to ensure the successful implementation of all the ICT Surveys undertaken so far.

As the demand for quality statistics increases, CSO has a critical role in providing technical support to various sectors in data collection and validation. The collaboration between CSO and ZICTA in data generation has been very productive as it has provided great opportunity for capacity building in both institutions for data processing and analysis. The data produced has been useful in the development of national indicator framework for implementation of the national development plan. The 2018 data set will add to the wealth of existing data on ICTs.

I would like to commend ZICTA for consistency in conducting the surveys according to the set periodicity, in order to keep up to speed with the demand for ICT data and statistics. It is inevitable that ZICTA continues being proactive in mobilization of resources for data production as there is a lot of demand for statistics to track progress being made towards meeting the targets that are set in the 7NDP, the SDGs and the Vision 2030.

It is my sincere hope that this report will be useful in formulating public ICT policies that promote adequate access to ICTs for everyone.

Goodson Sinyenga
Acting Director of Census and Statistics
Central Statistical Office

ACKNOWLEDGEMENTS

The 2018 National Survey on Access and Usage of ICTs by Households and Individuals was undertaken by the Zambia Information and Communications Technology Authority (ZICTA) in collaboration with the Central Statistical Office and the Ministry of Transport and Communications.

The three implementing organisations wish to thank the various households and individuals that participated in the survey. We would also like to thank the various organisations that made very important technical contributions during the implementation of the survey. Particularly, we are grateful to the Bank of Zambia and the Financial Sector Deepening Zambia (FSDZ) for their useful insights especially on issues relating to digital financial services. We are also grateful to the United States Agency for International Development for providing technical assistance on matters related to Gender and ICTs. The report also benefitted from consultations and feedback by staff from the three implementing institutions and other external stakeholders.

We are entirely thankful to the Government of Sweden through the Swedish International Development Cooperation Agency (SIDA) for the financial support provided towards the implementation of the survey.

EXECUTIVE SUMMARY

The 2018 Survey on access and usage of Information and Communication Technologies (ICTs) was aimed at measuring progress in the uptake of ICT products and services across the country. This follows prior assessments undertaken in 2013 and subsequently 2015 with a similar overall scope. The survey investigates various attributes relating to quality of experiences, barriers to access, affordability, diversity of services as well as the challenges experienced during usage. For the first time, the 2018 survey considers aspects related to electronic waste management among households and individuals as well as provides a more extensive assessment o aspects relating to gender and ICTs. The survey maintained its national scope and provides regional and provincial estimates on all the aspects evaluated. Robust estimates are provided based on a response rate of 99.9 percent of all the households selected in the sample. The key findings from the survey are outlined below:

a) Access to Electricity by Households

A key feature on households investigated was the access to electricity which has possible causal influence on uptake of ICTs. Only 32.9 percent of the households indicated that they source power through a utility company. This reflects less extensive connections in the country and could negatively affect the extent of uptake of ICT services. The problem is particularly pronounced in rural areas where only 6 percent of the households receive electricity from utility companies while 65.5 percent of households based in urban areas have access to electricity through power utility companies.

b) Access and Usage of Television and Radio Broadcasting Services

The proportion of households across the whole country with a working television set increased from 33 percent to 37 percent between 2015 and 2018. The proportion of households across the country that own a working radio reduced from 45 percent in 2015 to 40 percent in 2018. ZNBC television stations remain the most widely accessed local television stations by households that own working television sets in Zambia. On the other hand, the majority of households in the country that own working radios indicated that they access community radio stations. GoTV and Topstar recorded the highest frequency of households that indicated that they owned a working television set which was used to access broadcasting services and had access to pay television channels constituting 56.5 percent and 28.4 percent respectively.

c) Ownership of Computers by Households

There was a minute improvement in the ownership of computers by households. The proportion of households that owned computers increased from 7.1 percent observed in 2015 to 8.1 percent in 2018. Notable imbalance was observed between urban and rural areas as 14.7 percent of households in urban areas indicated that they owned a computer while only 2.7 percent of households based in rural areas owned a computer.

d) Access to Internet Services by Households

Access to internet services among households increased from 12.7 percent reported in 2015 to 17.7 percent in 2018. The survey established that mobile broadband services accessed through a mobile phone were the most prominent source of internet services by households. Less than 2.7 percent of the households accessed internet services through fixed internet services. The main challenges cited by households in service provision related to complaint resolution and internet speeds offered by service providers. The identified barriers to increased uptake of internet services by households included but were not limited to lack of skills, the cost of devices as well as the cost of the service offers on the market.

e) ICT skills among Individuals

Only 6.8 percent of individuals across the country reported to know how to use a computer. The majority of individuals across the country had basic computer skills and mainly undertook basic activities on the computer. The proportion of individuals across the country with relatively more advanced ICT skills was low. The distribution of individuals according to their sex based on the type of ICT skills revealed that the majority of individuals with the identified skills were mainly male.

f) Ownership and Usage of Mobile phones

It was estimated that 53.5 percent of all the individuals across the country were active users of mobile cellular

telephones established by estimating the proportion of individuals that had used a mobile cellular telephone in the last three months prior to the survey. A sizeable proportion of individuals that were active users of mobile telephone services, constituting 83.4 percent, owned mobile devices that were subscribed to at least one local mobile cellular network. The proportion of individuals that owned a smartphone as a share of all the people that had owned a mobile phone that was subscribed to a local network increased from 13.5 percent to 29.6 percent between 2015 and 2018. The most prominent complaints cited by individuals that indicated that they used mobile cellular phone services was poor clarity of voice calls as well as intermittent network availability or network outages.

g) Access to Internet Services by individuals

The proportion of individuals who indicated that they had used the internet before was 14.3 percent in 2018. This finding represents an increase in the proportion of individuals that had used the internet from 8.8 percent reported in 2015. Most of the individuals that indicated that they had used internet services before accessed the service through mobile broadband internet services via mobile cellular phones and modems. The main reason cited for not using the internet by individuals was lack of knowledge on how to use the internet accounting for 70.1 percent of the individuals that indicated that they had never used the internet. Other barriers to the uptake of internet services by individuals included lack of appropriate devices, lack of interest in the services as well as lack of access to the services.

h) Online risks and mitigation by households

The survey revealed that 34.7 percent of the households that indicated that they had access to internet services at home, had a member of the household who was responsible for monitoring the content accessed online by other members of the household. The survey established that the proportion of households that indicated that they used tools or strategies to mitigate exposure to illicit content was very low accounting for 14.5 percent of the total number of households that reported that they have access to the internet at home.

i) Online risks, incident and mitigation by Individuals

The survey estimated the proportion of individuals across the country with access to the internet that were aware of the risks associated with online activities at 52.9 percent. The incidence of fake news and pornographic material were reported to be the most prevalent risks that users of internet services encountered while online, accounting for 59 percent and 46.5 percent respectively, of the total number of users of internet services that reported that they encountered identified risks while online. Exposure to fake news and pornography were the most prevalent incidents that individuals reported to encounter while using social media. The survey revealed that only 30.4 percent of the individuals that use internet services know how to activate security or privacy settings on social media or a web browser.

j) Access and Usage of Digital Financial Services by Households

The survey revealed that the most widely held formal financial services accounts were electronic wallets accounting for 21.5 percent of individuals aged above the age of 10 years. The survey established that at least 48.9 percent of all the households across the country had used digital financial services before. The majority of the households reported using Digital Financial Services for Receiving and Sending Money representing 92.8 percent and 77.6 percent respectively.

k) Access and Usage of Digital Financial Services by Individuals

The level of awareness on the existence of digital financial services currently on offer in Zambia among all individuals aged 10 years and older was estimated at 67.2 percent. The survey estimated that about 29.5 percent of individuals in the country have transacted before, using digital financial services. The main reason cited by individuals that had not used digital financial services was that they had no resources to use the services or they were not registered, accounting for **54.4 percent** and **39.1 percent** of all the individuals that had not used

digital financial services before. The most prominent challenges experienced while using digital financial services were system failure and insufficient float by agents accounting for 55.7 percent and 39.2 percent of individuals that had used digital financial services and experienced some challenges.

l) Regulation of Digital Financial Services

Only 3.2 percent of all the individuals across the country indicated that they were aware of an institution that is responsible for the regulation of digital financial services in Zambia. Further, only 14.2 percent of individuals that indicated that they had transacted using digital financial services indicated that they were aware of channels of redress in the event of a problem during usage of the services. The most prominent areas cited for the improvement of delivery of digital financial services were related to increasing the number of pay points and minimising on network outages.

m) Electrical or Electronic Waste management

The survey estimated that 48.9 percent of all the households across the country had disposed of some electronic or electrical items which were damaged or were no longer useful to the households. An assessment of the number of electrical or electronic items that were disposed by households revealed that mobile phones and radios were the most widely disposed items by households. The most prominent method of disposal for electronic and electrical waste by individuals was putting away of the electrical or electronic waste that was deemed unfit for use as well as donating of the devices. The survey established that only 10 percent of the population aged 10 years and older indicated that they had knowledge about the dangers associated with unsafe disposal of electronic and electrical waste.

In view of the foregoing, the following policy and regulatory recommendations are drawn for consideration:

i. There is need to continue exploring avenues for extending access to electricity supplied by utility companies if increased adoption of ICTs is to persist. The survey estimates that only 32.9 percent of the households across the country access electricity through a utility company. Greater focus should be on rural areas as only 6 percent of the households in the rural areas had supply through a utility company compared to 65.5 percent of households based in urban areas.

ii. Interventions aimed at increasing awareness need to be structured with the demographic composition of the population in mind. Particularly, over 78 percent of the population was below 35 years of age. At the same time, 52 percent of the population are female. Similarly, Lusaka and Copperbelt province account for the largest proportion of the population. There were noted imbalances in access and usage of ICTs with respect to the geographical distribution of individuals and to a limited extent across sex groups.

iii. There is need to explore avenues for enhancing the quality of television reception for the national broadcaster, which is the most widely adopted television station. Further, the adoption of ZNBC set top boxes remains low despite the progress on the initiatives related to digital migration. Further, while community radio stations are the most widely adopted radio services, the quality of the reception was not the most favourable. More oversight may be useful to enhance the quality of radio services received by households.

iv. The improvement in the adoption of fixed line services, partly explained by the use of SIM card based fixed telephones, provides an innovative prospect for the market segment. The market segment could be opened up to more innovative options such as fibre based services to complement the emergence of the SIM card based fixed lines.

v. Deliberate policy actions aimed at increasing the uptake of computers in the country will be necessary. For instance, fiscal incentives aimed at either the importation of computers or the assembly of computers could provide a more affordable avenues for accessing the devices.

vi. ICT skills remain nascent especially outside secondary school going individuals. Further, advanced ICT skills were notably low with

the majority of individuals exhibiting basic skills. It will be useful to extend interventions aimed at enhancing ICT skills to primary schools as well as enhancing the depth of the curriculum on ICT training at all levels of education.

vii. As smartphone ownership is expanding, exposure to online risks is expected to increase. It will be useful to enhance efforts aimed at increasing awareness on online risks as well as the mitigation measures for the risks. Particularly, fewer households were aware of the filters that can be provided by the internet service provider.

viii. ZICTA must enhance quality of experience with increased monitoring of service dimensions such as network availability, quality of voice call clarity, internet speeds, dropped call rates, complaint resolution and accuracy in billing. For instance, more periodic audits on the billing platforms could be undertaken. At the same time, more extensive tests on the quality of service could be considered.

ix. The regulator could consider enhancing its efforts in mitigating the risks associated with fake news and exposure to pornography. This is especially prominent on social media platforms. Consideration could be given to increasing awareness on mitigation measures, channels of redress as well as more responsible use of the internet and social media in particular.

x. Efforts to extend financial inclusion through increased uptake of digital financial services will be useful. There is still a lot of scope to leverage on the increased adoption of ICTs to enhance financial inclusion. Much of the effort should be directed at increasing awareness about the services as well as clarifying misconceptions on the appeal of the service to the wealthy.

xi. Regulatory oversight of digital financial services should include but not be limited to improving the network quality and availability, mitigating challenges with float as well as monitoring key performance indicators on transmission of funds. There is also need to increase number of agents that support the deployment of Digital Financial Services.

xii. Awareness on safe disposal of electronic or electrical waste remains a huge gap in Zambia. The Zambia Environmental Management Agency (ZEMA) working with other stakeholders must enhance its awareness efforts to sensitise the public on the dangers of electronic waste as well as the alternative options for safer disposal of electronic and electrical waste. This may also entail developing more platforms for safe disposal of electronic and electrical waste. The increased accumulation of electronic and electrical waste from mobile cellular phones, chargers and batteries raises concern on the quality of electronic and electrical devices/products available on the market. More oversight on the adherence to quality standards that could enhance the useful life of the devices is needed to mitigate the growing challenge. i.

xiii. The gender divide observed in access and usage of ICTs among households and individuals needs redress. Particularly, fewer females than males have access to mobile phones, computers, know how to use a computer and do not have ICT skills. Efforts to bridge this digital divide should be enhanced to reduce these disparities. Specifically, public actors, private entities and non-state actors should devise strategies aimed at increasing the uptake and usage of ICTs among women and girls. As more cyber related risks are increasingly targeted at women and girls, mitigating this risk can be a priority for new initiatives. Further, skills among girls and women can be enhanced through short term training programmes as well as advocating for quotas that favour women and girls in ICT training institutions.

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LIST OF ABBREVIATIONS

BoZ	Bank of Zambia
CSO	Central Statistical Office
DFS	Digital Financial Services
EAs	Enumeration Areas
E-Commerce	Electronic Commerce
FNB	First National Bank
FTTH	Fibre –to-the Home
GRZ	Government of the Republic of Zambia
ICT	International Telecommunications Union
MNO	Mobile Network Operator
OTT	Over-the-Top
SDGs	Sustainable Development Goals
SEAs	Standard Enumeration Areas
7NDP	Seventh National Development Plan
SIDA	Swedish International Development Agency
SIM	Subscriber Identity Module
SZI	SMART Zambia Institute
UNO	United Nations Organisation
ZANACO	Zambia National Commercial Bank
ZICTA	Zambia Information and Communications Technology Authority
ZNBC	Zambia National Broadcasting Corporation

1.0. Background to the 2018 National Survey on Access and Usage of Information and Communication Technologies in Zambia

1.0. Background to the 2018 National Survey on Access and Usage of Information and Communication Technologies in Zambia

1.1. Introduction

The 2018 National Survey on Access and Usage of Information and Communication Technologies (ICTs) by households and individuals in Zambia was undertaken by the Zambia Information and Communications Technology Authority (ZICTA) in collaboration with the Ministry of Transport and Communications and the Central Statistical Office. The survey was financially supported by the Government of the Republic of Zambia and the Government of Sweden through the Swedish International Development Agency (SIDA). This is the third nationwide assessment aimed at establishing the extent of access and usage of ICTs by households and individuals undertaken by the three implementing institutions. Similar assessments were undertaken in 2013 and 2015 based on the existing country context at the time.

Innovation continues to take centre stage in the ICT sector as consumer tastes and preferences continuously evolve with the changes in technologies. For instance, online news has evidently gained prominence in the country as consumers have an opportunity to gain real time updates on new developments. Over-the-top (OTT) applications such as WhatsApp, Facetime, Messenger and Viber have equally gained prominence on account of their convenience, cost effectiveness as well as versatility and appeal. There have also been some noted changes related to affordability of ICT services arising from more innovative pricing strategies[1]. At the same time, a number of providers of ICT services have continued to invest in new areas as well as new technologies motivated by the need to extend their coverage and the improve quality of service.

Some recent policy initiatives are also expected to have translated into changes in the uptake of ICT products and services. Following the introduction of compulsory ICT subjects in schools by the government in 2015, barriers related to ICT literacy are anticipated to reduce[2]. The removal of customs duties on smart phones by the government is also likely to support the uptake of the devices. The Government has also continued to invest in ICT infrastructure aimed at extending coverage and enhancing reliability of ICT services across the country. For instance the government through the SMART Zambia initiative is scheduled to install up to 1009 communication towers across the country[3] by the year 2020.

Notwithstanding, as uptake of ICT products and services continues to surge, cyber related risks and incidents are also expected to be on the rise. Particularly, the advent of digital financial services has presented new challenges relating to consumer protection. Cyber related risks and incidents have also been associated with the adoption of electronic commerce (e-commerce) transactions.

1.2. Survey Objectives

The 2018 national survey on access and usage of ICTs by households and individuals was aimed at establishing the level of access and usage of diverse ICT services and products in Zambia including the perceptions on quality of service and affordability. The survey also examined the extent of online risks, incidents and mitigation measures by households and individuals. An assessment of the extent of access and usage of digital financial services in Zambia was also undertaken. Further, an evaluation of the gender dimensions related to access and usage of ICTs in Zambia was made. For the first time in 2018, an attempt was made to identify the behavioural aspects of electronic/electrical waste (e-waste) generation and awareness on the management of e-waste by households and individuals. Ultimately, all these attributes were investigated with a view of providing recommendations related to increasing access and usage of ICTs in the country.

[1] http://www.techtrends.co.zm/mtn-airtel-zamtel-speak-data-bundle-reduction/

[2] http://www.daily-mail.co.zm/ict-exams-compulsory/

[3] http://www.daily-mail.co.zm/a-major-leap-to-bridge-digital-divide/

1.3. Survey Methodology

In conducting the survey, the implementing agencies relied on international best practice in undertaking similar surveys. Specifically, the survey was based on the 2014 Manual for Measuring ICT Access and Use by Households and Individuals developed by the International Telecommunications Union (ITU), a specialised agency of the United Nations[4] . The survey was conducted in all the ten provinces of the country covering both rural and urban areas. A total of 6,150 households were targeted in the nationally representative sample with a response rate of 99.9 percent achieved. The households were drawn from 246 Standard Enumeration Areas (SEAs) selected from the universe of SEAs in the country, identified during the Census of Population and Housing conducted of 2010.

Face to face interviews were conducted using the Computer Assisted Personal Interviewing (CAPI) among all the household members aged 10 years and above that were present at the time of interview in the selected households. The Survey Solutions application for Android, a software package for capturing/digitizing data from censuses and surveys developed by the World Bank was used on the CAPI devices. A mixture of closed, open-ended, single and multiple response questions were elicited to respondents during the survey[5]. The diversity of responses assisted in bringing out distinct attributes associated with access and usage of ICTs by households and individuals[6].

1.4. Context and Rationale for the Survey

The findings of the 2018 National Survey on access and usage of ICTs by households and individuals have particular importance to the country's development aspirations. The 2030 Agenda for Sustainable Development recognizes that "The spread of information and communication technology and global interconnectedness has great potential to accelerate human progress, to bridge the digital divide and to develop knowledge societies"[7]. While none of the Sustainable Development Goals (SDGs) is specifically about ICTs, several targets make reference to ICTs.

In Zambia, the Seventh National Development Plan (7NDP) equally recognises the importance of ICTs as a catalyst for socio-economic development by enhancing competitiveness as well as being an enabler of good governance[8] . A number of strategies aimed at leveraging on ICTs for development are identified in the medium term development strategy. Recently, the Ministry of Finance published the Financial Sector Development policy which underscores the importance of digital platforms to accelerate financial inclusion[9]. Another prominent development has been the initiative by the Ministry of Agriculture to facilitate access to farming inputs for targeted farmers using electronic platforms.[10] As a key actor in the ICT sector, ZICTA has also identified a number of actions in its strategic plan for the period 2017-2021 aimed at contributing to the transformation of the country into a digital information society. All these initiatives point to the growing importance of ICTs in the country.

The estimates from the survey will also provide insights on the effectiveness of the initiatives adopted by various state and non-state actors in promoting access and usage of ICTs. Further, the insights gathered from households and individuals will form a basis for realigning the current sectorial policy and regulatory strategies for increasing the uptake of ICT products and services in the country.

[4] https://www.itu.int/dms_pub/itu-d/opb/ind/D-IND-ITCMEAS-2014-PDF-E.pdf

[5] See annexure 1 for Household level and Individual level Questionnaires

[6] See Annexure 2 for detailed methodology

[7] https://www.itu.int/en/ITU-D/Statistics/Pages/intlcoop/sdgs/default.aspx

[8] http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=2ahUKEwiBmMewn4HgAhVKRBUIHWzBABgQFjAAeg-QIChAC&url=http%3A%2F%2Fwww.mcti.gov.zm%2F%3Fwpfb_dl%3D42&usg=AOvVaw2e-52DWqErbwOb2j9zWw7n

[9] http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=2ahUKEwj40ZbmuIHgAhVkonEKHWvsDBsQFjAAegQICRAC&url=http%3A%2F%2Fwww.boz.zm%2FNational-Financial-Sector-Development-Policy-2017.pdf&usg=AOvVaw29dxHpAVvco2CWCZQk_X6N

[10] https://www.lusakatimes.com/2015/10/12/president-lungu-launches-fisp-e-voucher/

2.0. Demographic and Socio-Economic Characteristics of the Survey

2.0. Demographic and Socio-Economic Characteristics of the Survey

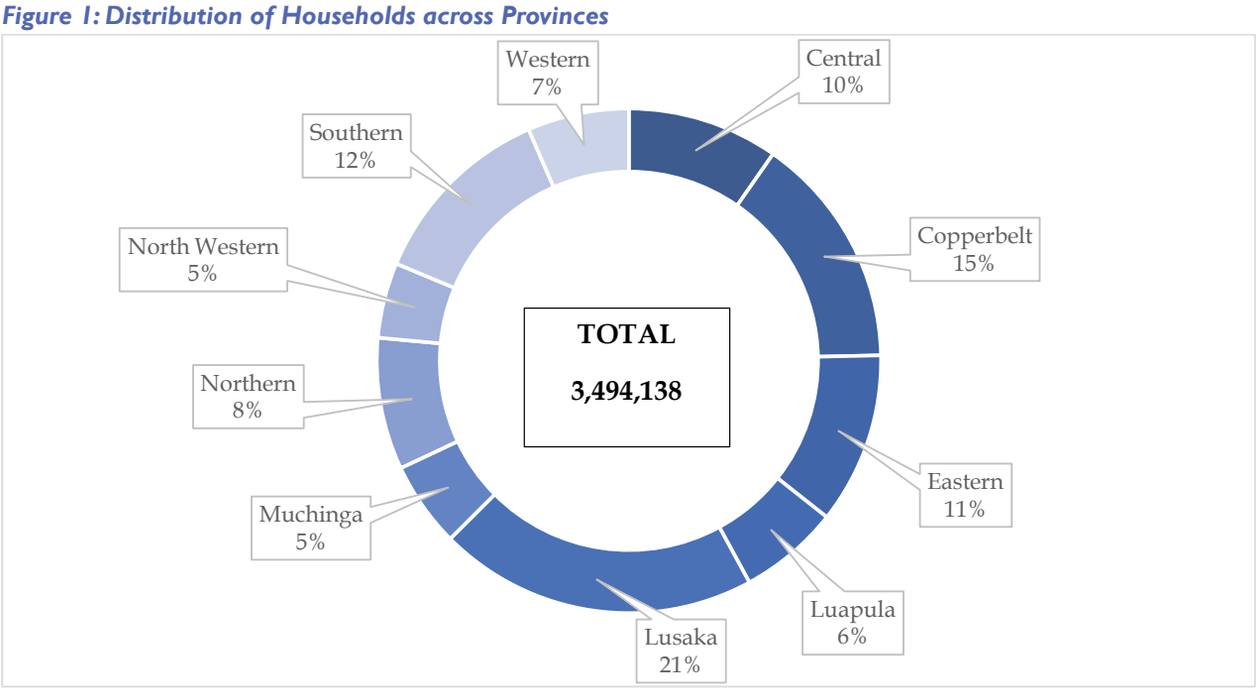
This chapter provides insights into the demographic and socio-economic characteristics of all the households and individuals across the country at the time of the survey. The demographic and socio-economic characteristics that are presented include but are not limited to the distribution of households across the country, distribution of households with access to electricity, distribution of household heads by sex, distribution of households by region as well as the distribution of individuals disaggregated by sex, age, literacy, disability, employment status and level of education attained. The demographic and socio-economic characteristics of the population are considered as they have potential to influence access and usage of ICTs among households and individuals. They also provide a context to the prevailing environment where the overall assessment on access and usage of ICTs was undertaken.

2.1. Demographic and Socio-Economic Characteristics of Households

2.1.1. Distribution of Households

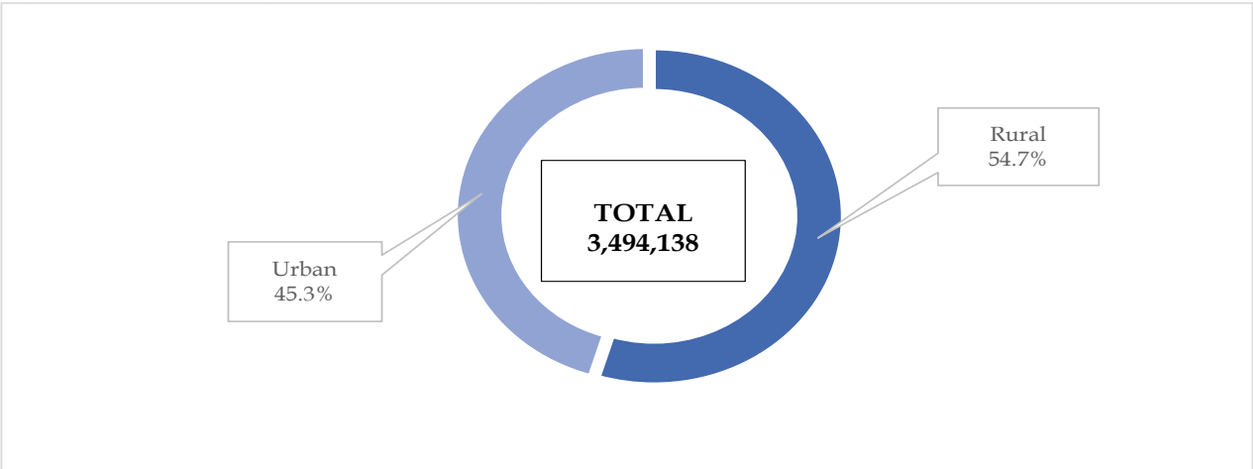
The survey relied on the prescribe definition of a household in the compendium of Statistical concepts and Definitions for the National Statistical System which is a group of people who normally live and eat together. They may or may not be related by blood, marriage or adoption, but make common provision for food or other essentials for living and they have only one person whom they all regard as head of household. The survey estimated that there were a total of 3.5 million households spread across the whole country. It was further established that Lusaka Province accounted for the largest proportion of households in the country constituting 20.5 percent, followed by the Copperbelt province which accounted for 15.0 percent. North-Western Province and Muchinga province accounted for the least proportions of the total number of households constituting 4.8 percent and 5.5 percent respectively.

Figure 1: Distribution of Households across Provinces



There were relatively more households in rural areas than urban areas. Specifically, 54.7 percent of the total number of households across the country were estimated to be located in rural areas while 45.3 percent of the total number of households were located in urban areas.

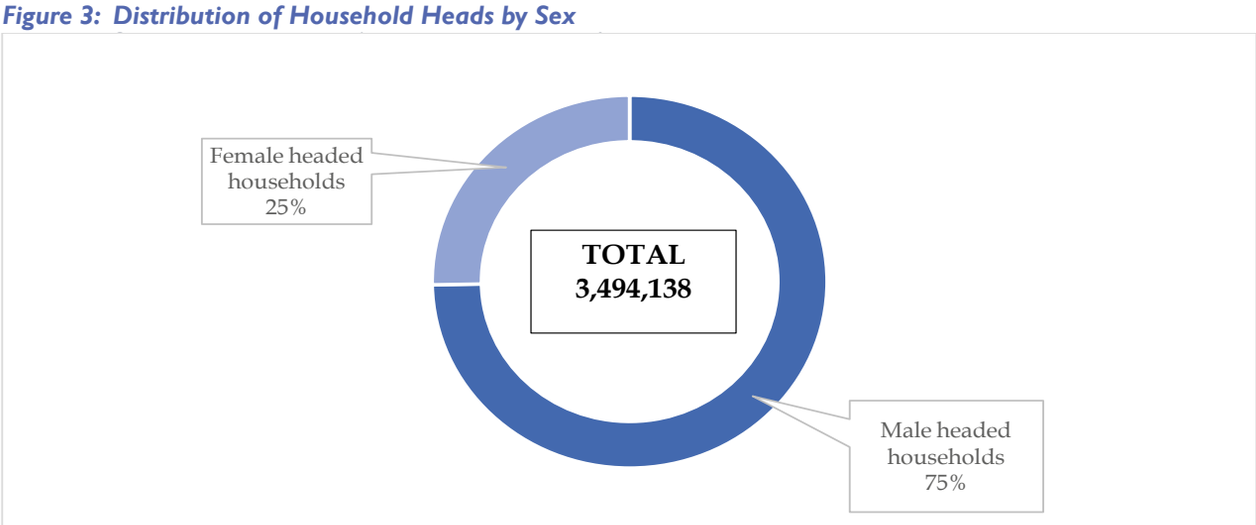
Figure 2: Distribution of Households across Regions; 2018



2.1.2. Distribution of Heads of Households by Sex

There were relatively more male headed households than female headed households across the country. Specifically, 74.6 percent of the households were headed by males while only 25.6 percent of the households were headed by females.

Figure 3: Distribution of Household Heads by Sex



2.1.3. Average Size of Households

The average size of a household in Zambia was estimated at 4.8 (approximately 5 people). The average size of households was relatively comparable between rural areas and urban areas. Specifically, the average size of a household in rural areas was 5.1 (approximately 5 people) while the average size of a household in urban areas was 4.6 (approximately 5 people) people. However, households headed by males had a larger average size of the household amounting 5.1 (approximately 5 people) compared to the average size of the household headed by a female that amounted to 4 people.

Table 1: Average Size of Households by Sex of Head of Household and Region

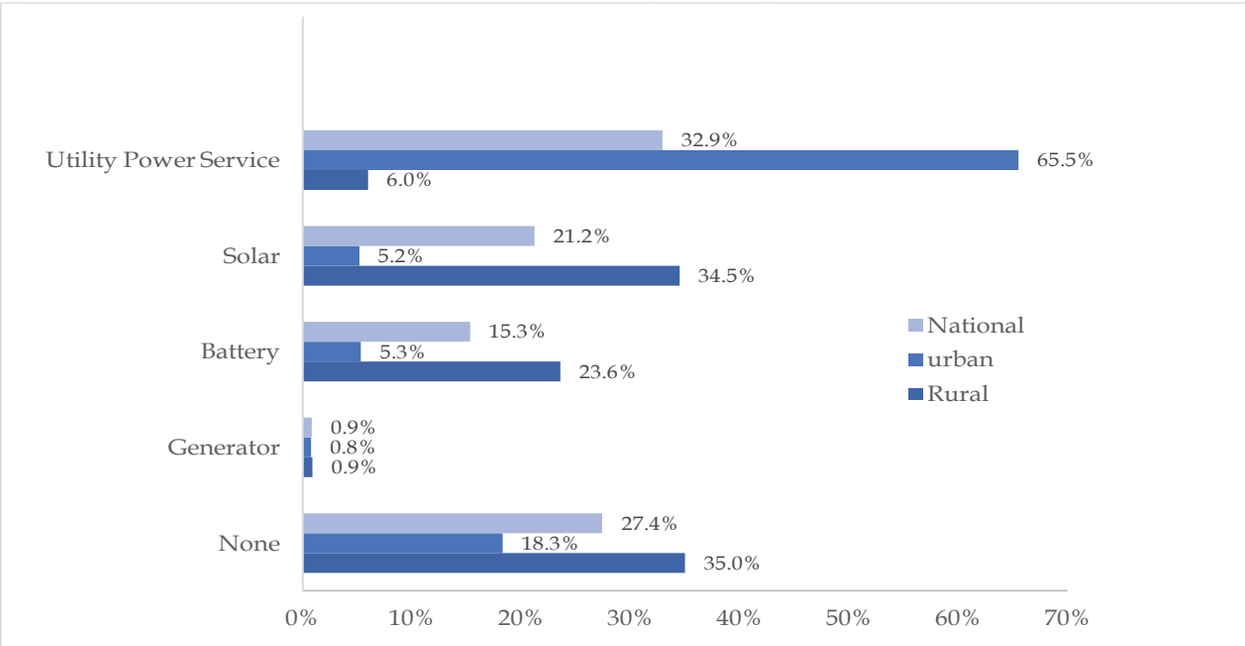
Region	All Households	Male Headed Households	Female Headed Households
Total	4.8	5.1	4.0
Rural	5.1	5.4	4.0
Urban	4.6	4.8	4.0

Distribution of Households by Access to Electricity

The most widely accessed source of electricity was supplied by utility companies to households, accounting for a proportion of 32.9 percent of the total number of households across the country. Further, 65.5 percent of the households based in urban areas reported that they had access to

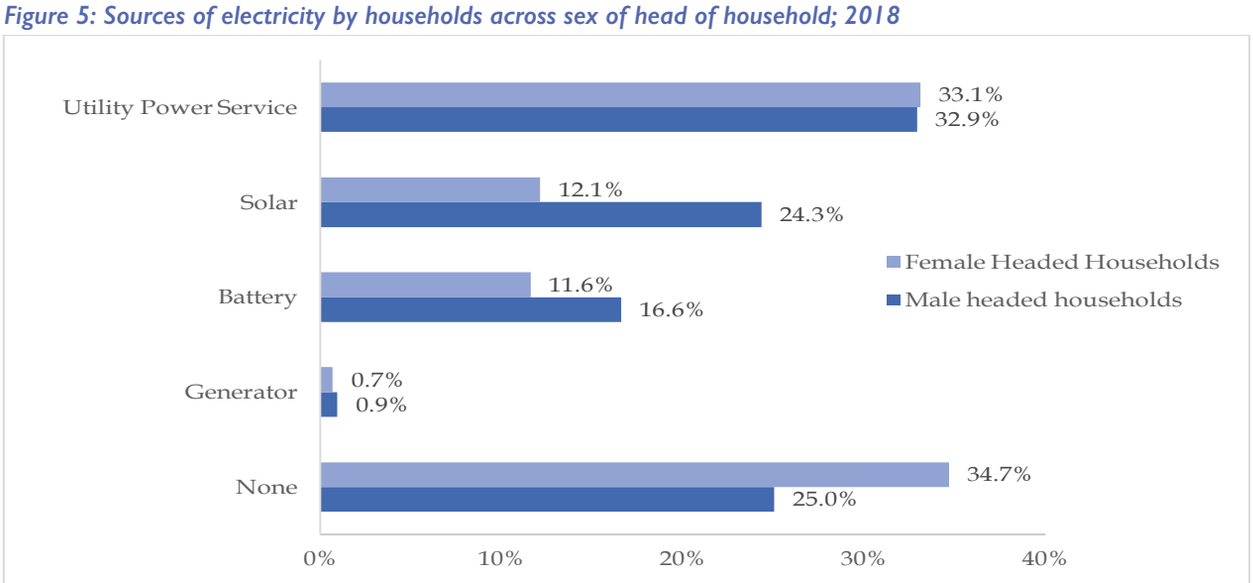
electricity supplied by power utility companies while only 6 percent of the households based in rural areas indicated that they had access to electricity supplied by power utility companies. On the other hand, Generators were the least utilised source of electricity by households accounting for less than 1 percent of the total number of households in the country. It was also established that 27.4 percent of the households across the country do not have access to any source of electricity.

Figure 4: Access to electricity by households across type of source of electricity



There was a very minimal difference in the proportion of households headed by males that indicated that they had access to electricity[11] supplied by power utility companies compared to households headed by females that reported that they had access to electricity supplied by power utility companies. Specifically, 33.1 percent of the households headed by females indicated that they had access to electricity supplied by power utility companies while 32.9 percent of the households headed by males indicated that they had access to electricity supplied by power utility companies. However, a larger proportion of households headed by females accounting for 34.7 percent of the total number of households headed by females indicated that they had no access to any source of electricity compared to the proportion of households headed by males who reported that they did not access to electricity supplied by power utility companies constituting 25 percent.

Figure 5: Sources of electricity by households across sex of head of household; 2018



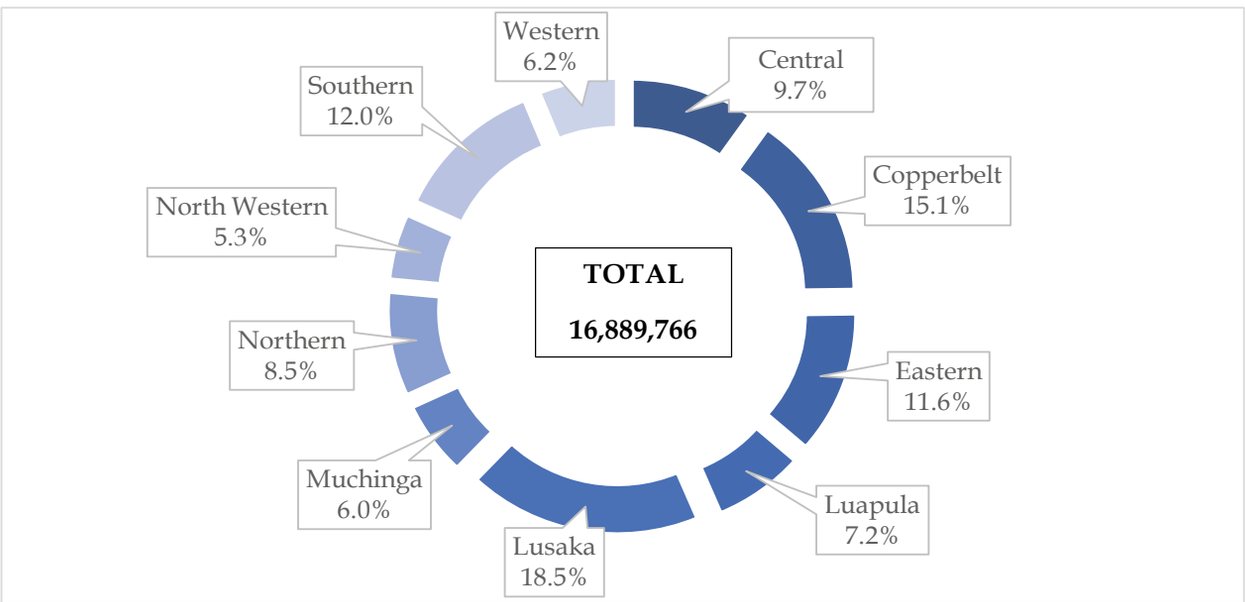
[11] Electricity supplied by power utility companies

2.2. Distribution of the Population

2.2.1. Distribution of the Population by Province

The survey had a national coverage encompassing all the ten provinces of Zambia. The estimated population size was 16.9 million and was based on a weighting procedure adopted to extrapolate the results to the population of 10 years and older, Lusaka Province accounted for the highest proportion of the population accounting for 18.5 percent followed by Copperbelt Province which accounted for 15.1 percent. North – Western Province and Muchinga province accounted for the smallest proportion of the total population estimated constituting 5.3 percent and 6.0 percent respectively.

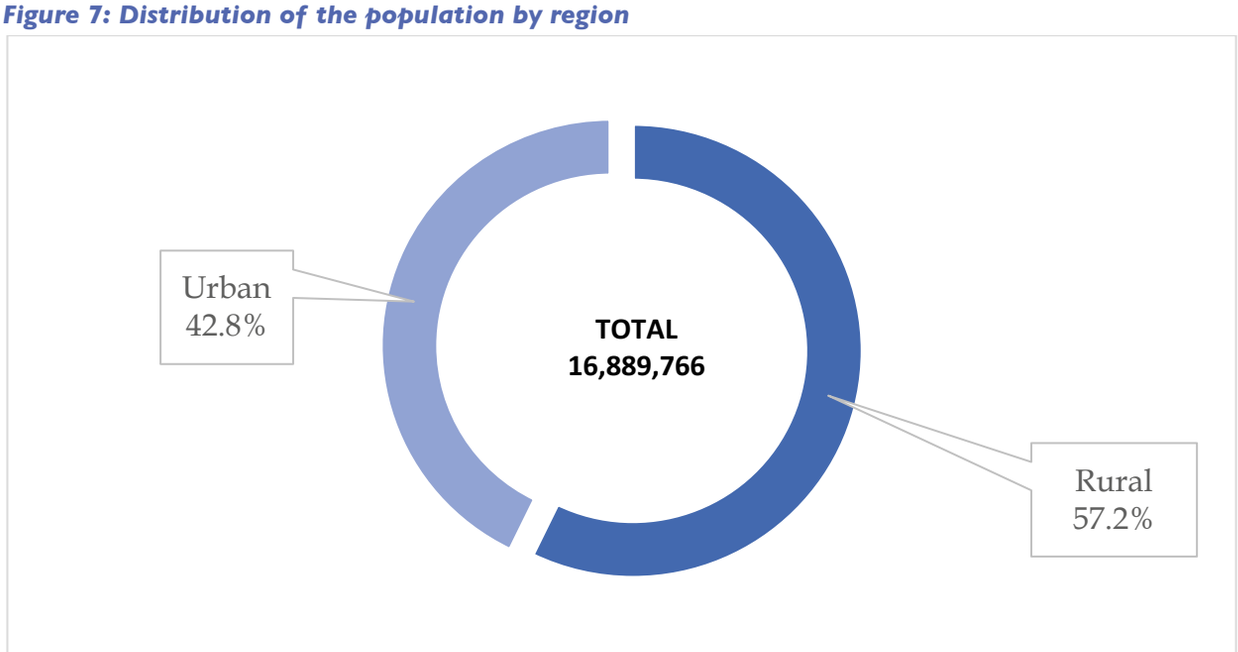
Figure 6: Distribution of the population by province



2.2.2. Distribution of the Population by Region

The majority of individuals in the country were based in rural areas compared to urban areas. Specifically, 57.2 percent of the population were based in rural areas while 42.8 percent were based in urban areas.

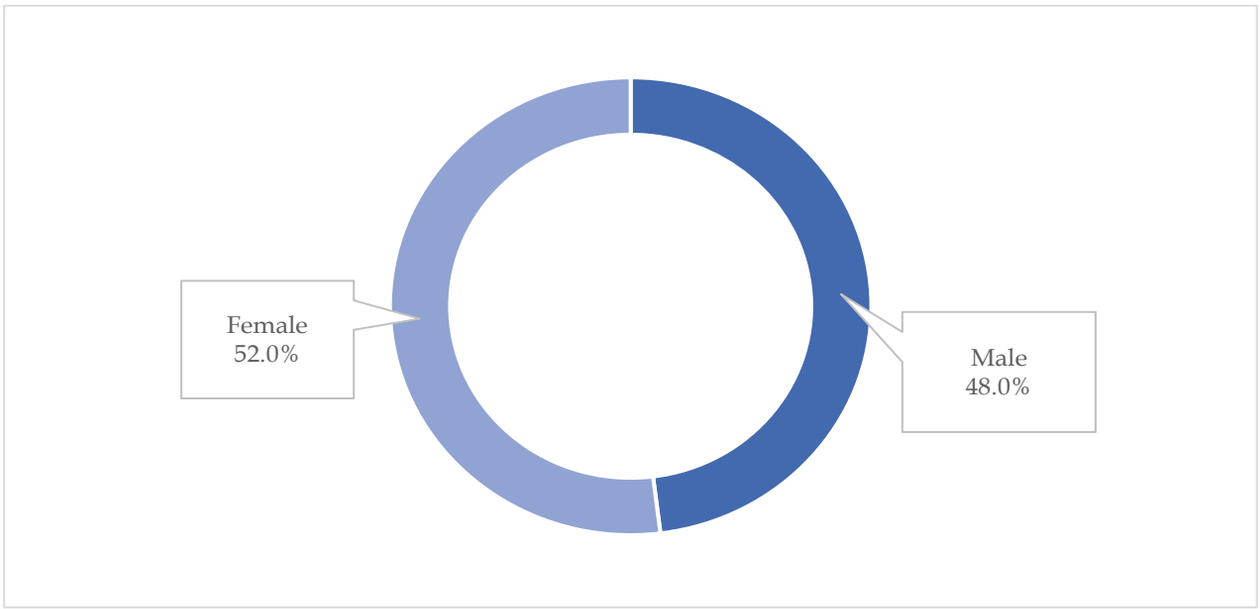
Figure 7: Distribution of the population by region



2.2.3. Distribution of the Population by Sex

The distribution of the population according to the individuals' sex revealed that 52.0 percent of the population were females while 48.0 percent were males.

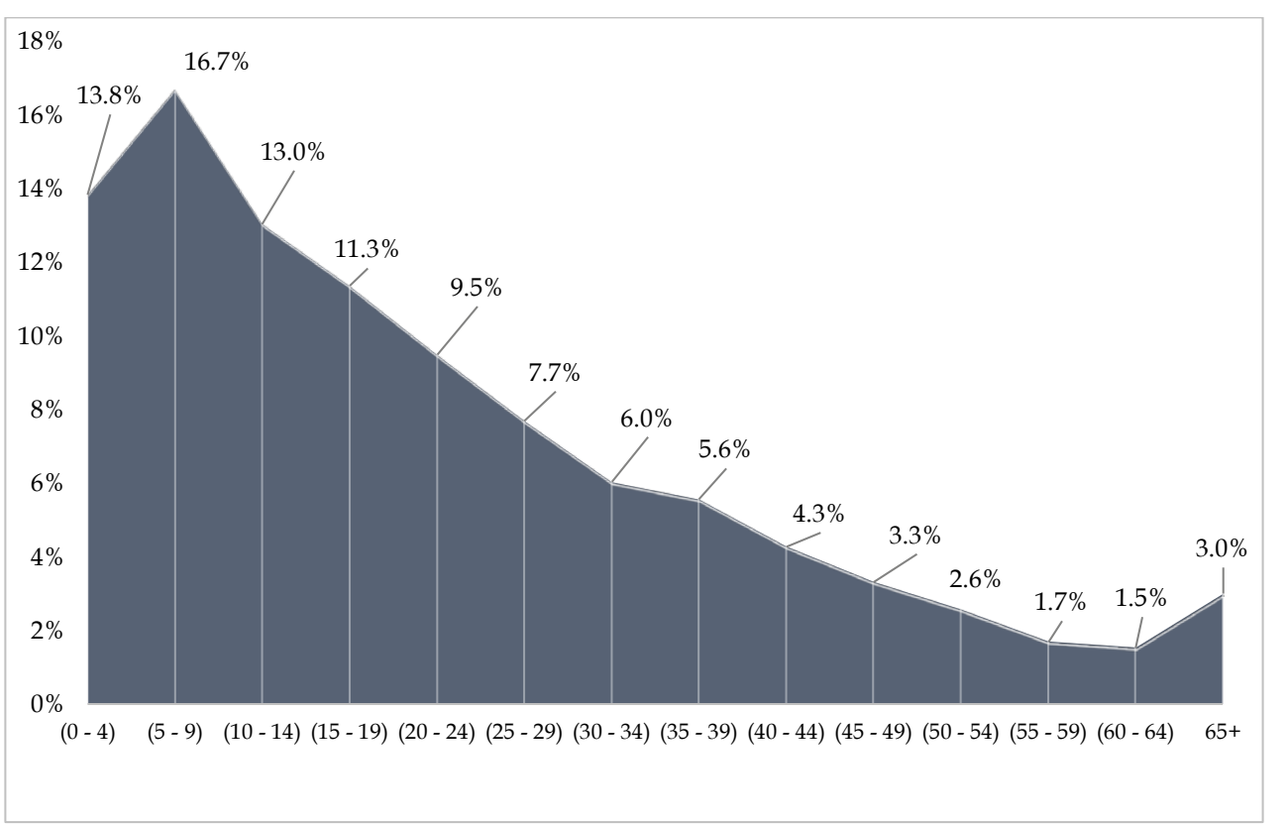
Figure 8: Distribution of the population by sex



2.2.4. Distribution of the Population by Age Group

The country's population was largely young with the highest proportion of the population aged between 5 and 9, constituting 16.7 percent of the total population[12]. Over 78 percent of the population was aged below 35 while less than 5 percent of the population were aged above 65 years.

Figure 9: Percentage distribution of the population by age group



[12] The Population age groups were arranged in intervals of 5 years

2.2.5. Distribution of the Target Population by Education Attainment Levels

The largest proportion of the population aged 10 years and above reported that they had attained primary education accounting for 49.0 percent of the total population. On the other hand, the percentage of the population aged 10 years and above that indicated that they had completed tertiary education accounted for the least proportion amounting 5.5 percent. Noteworthy also, is that 8.3 percent of the population aged 10 years and above had not attained any level of education.

There was a relatively higher proportion of males that indicated that they had attained secondary and tertiary education while more females indicated that they had attained primary education. Further, the proportion of females who had not attained any level of education was higher compared to males. Specifically, 41.2 percent of the males indicated that they had attained secondary education compared to 33.6 percent of the females while 6.3 percent of males reported that they had attained tertiary education compared to 4.8 percent of females. On the other hand 51.5 percent of females indicated that they had attained primary education compared to 46.2 percent of males while 10.1 percent of females had not attained any level of education compared to 6.3 percent of males.

Table 2: Distribution of the target population by education attainment levels

	All	Male	Female
None	8.3%	6.3%	10.1%
Primary	49.0%	46.2%	51.5%
Secondary	37.2%	41.2%	33.6%
Tertiary	5.5%	6.3%	4.8%

2.2.6. Distribution of the Population by Disability

The International Classification of Functioning, Disability and Health (ICF) classifies disability in three areas that are inter-related:

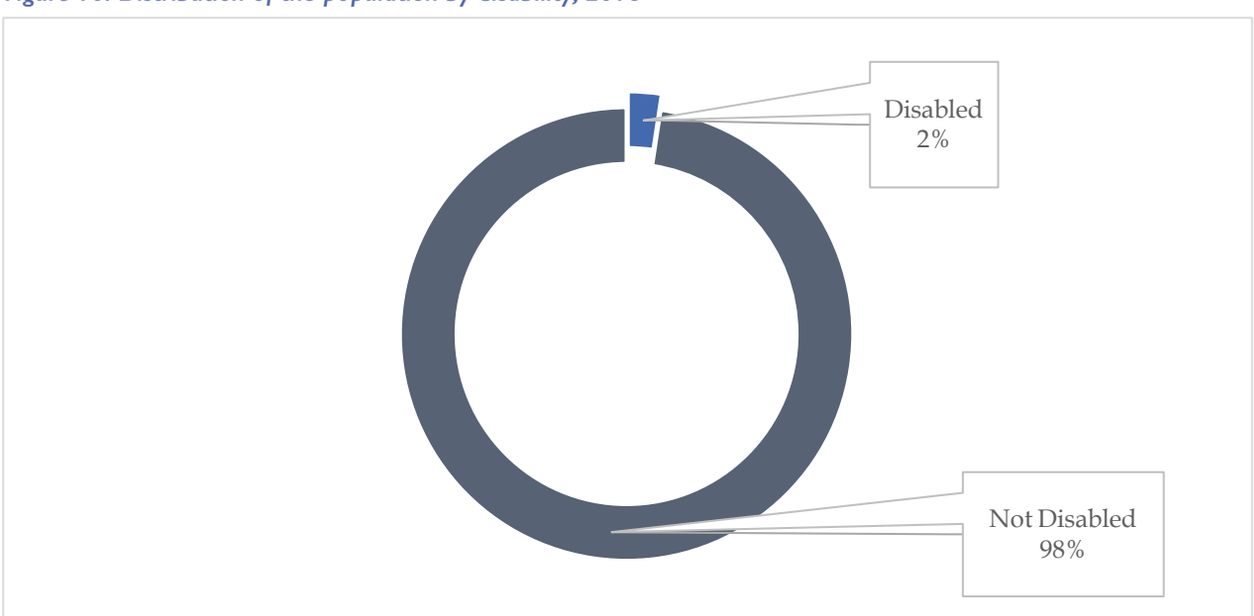
Impairments: *problems in body function or changes in body structure such as blindness;*

Activity limitations*: difficulties in doing certain activities such as walking or eating;*

Participation limitations*: societal restrictions with regards, involvement in any area of life such as being discriminated against in employment or transportation.*

Formally, disability refers to problems faced in any or all three areas of functioning[13]. The proportion of the entire population that reported that they had a disability was estimated at 2.4 percent.

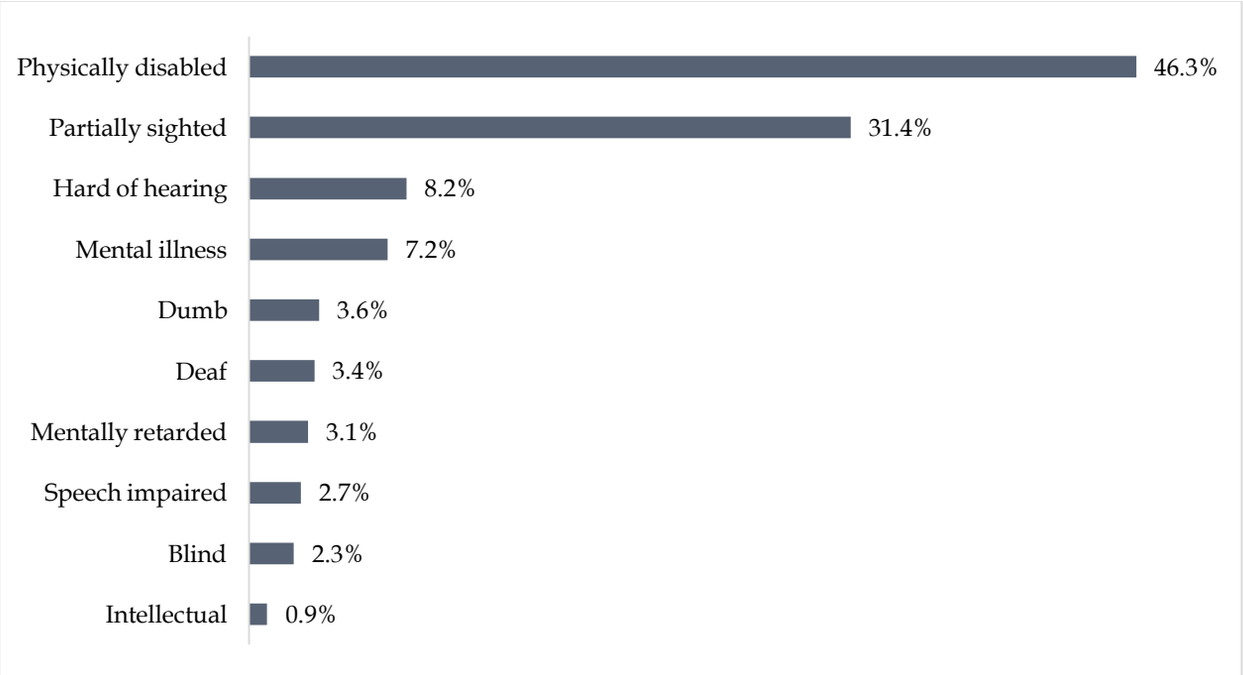
Figure 10: Distribution of the population by disability; 2018



[13] https://apps.who.int/iris/bitstream/handle/10665/43737/9789241547321_eng.pdf;jsessionid=1AB7A8A70B5AB060C7EA6252656D55F4?sequence=1

Physical disability was the most prevalent type of disability reported accounting for 46.3 percent of the total number of people that indicated that they had a disability, followed by partial sightedness accounting for 31.4 percent of the total number of people that reported that they had this disability. The least prevalent type of disability was intellectual disability accounting for 0.9 percent of the total number of people that reported that they had a disability.

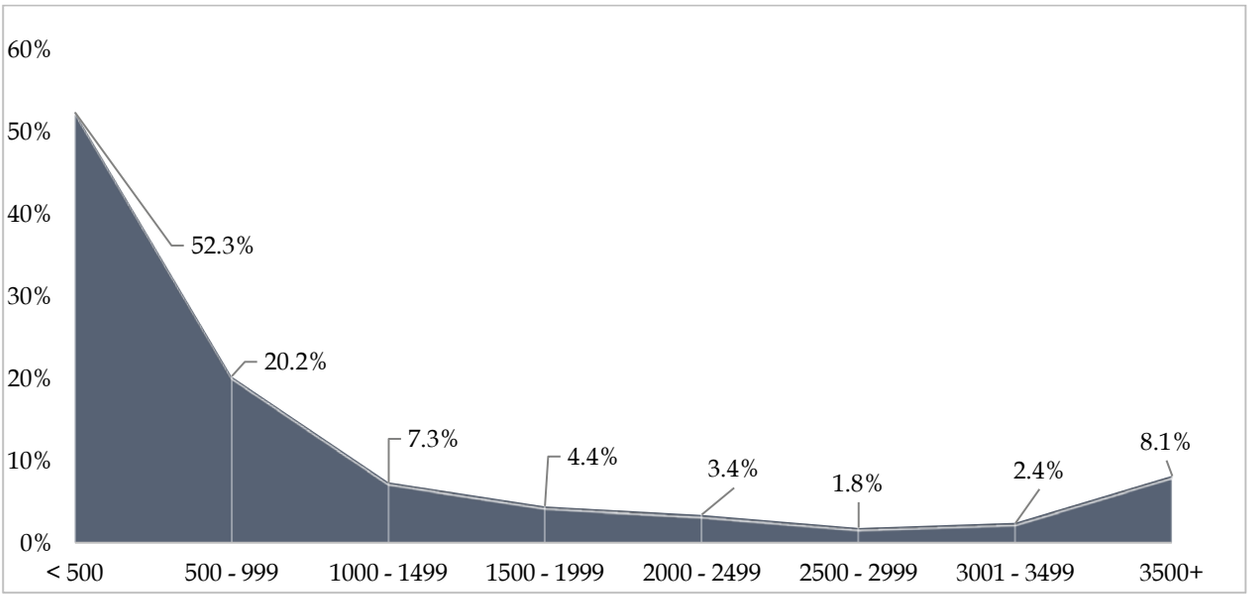
Figure 11: Distribution of the population by type of disability; 2018



2.2.7. Distribution of the Population by Income Level

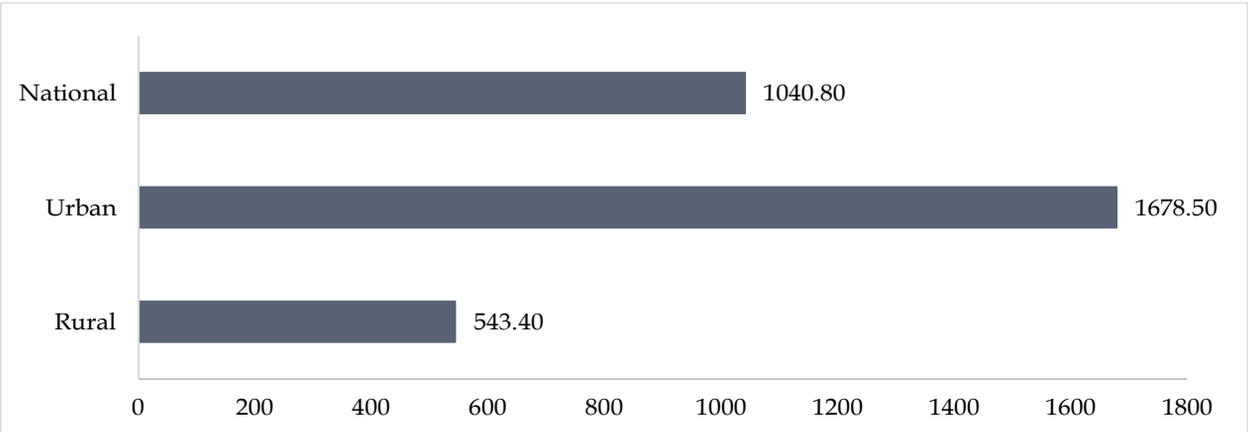
More than half of the individuals aged 10 years and older were estimated to have income levels from all sources that were less than ZMW500. It was also established that the proportion of individuals aged 10 years and above progressively declined with higher earnings. Only 8.1 percent of the individuals had incomes that exceeded ZMW3500.

Figure 12: Distribution of population by income Level 'ZMW'; 2018



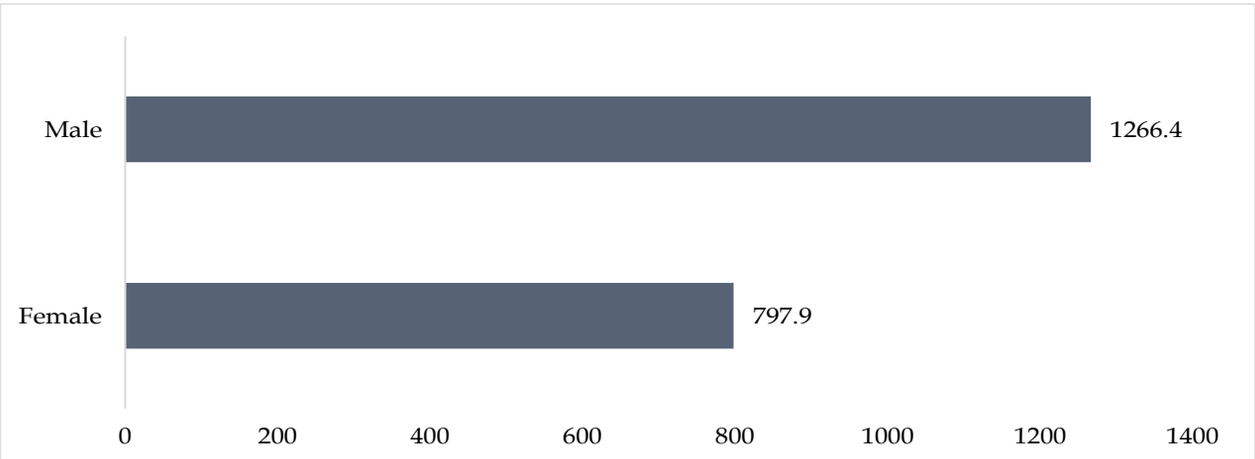
The average income from all sources for individuals aged 10 years and above was estimated at ZMW 1,040.80. Individuals aged 10 years and above that were based in urban areas had a relatively higher average income from all sources compared to individuals aged 10 years and above that were based in rural areas. Specifically, the average income from all sources for individuals aged 10 years and above that were based in urban areas was 1,678.50 while the average income for rural-based individuals aged 10 years and above was ZMW543.40.

Figure 13: Distribution of incomes for individuals across regions, 'ZMW'; 2018



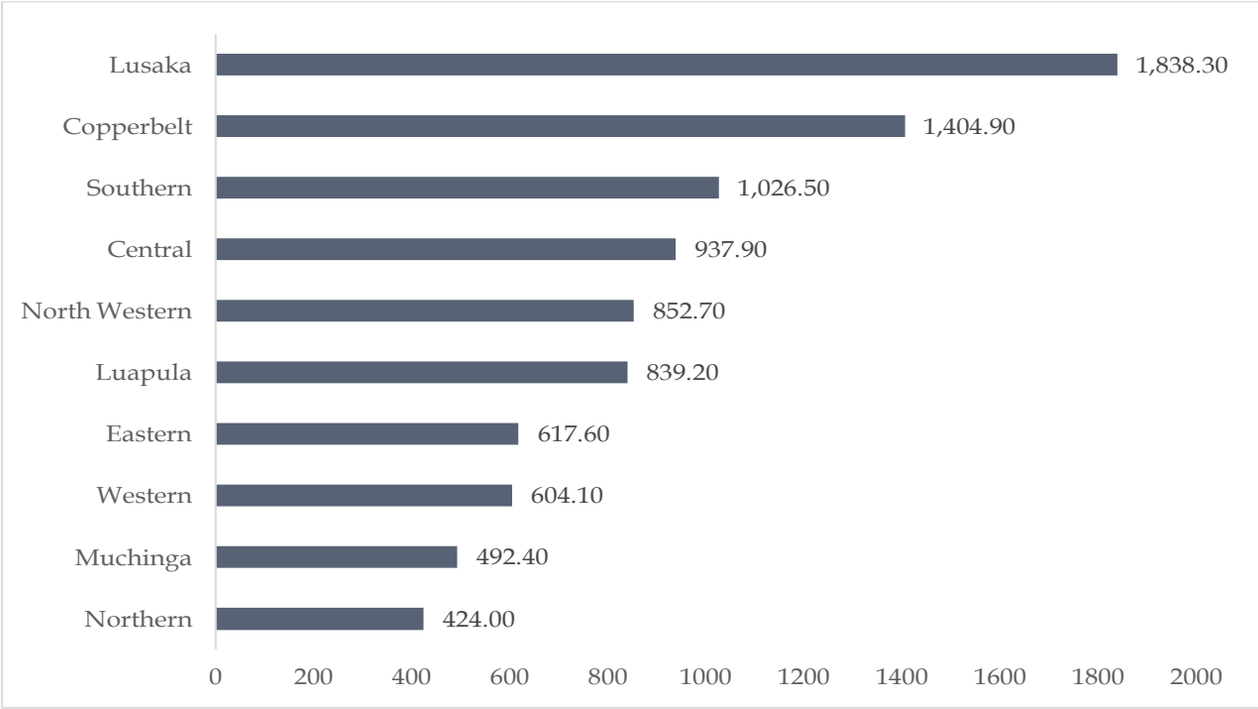
The average income for male individuals aged 10 years and above was relatively higher than the average income of individuals aged 10 years and above that were female. Specifically, the average income for male individuals aged 10 years and above was ZMW 1,266.40 while the average income of female individuals aged 10 years and above was estimated at ZMW 797.90

Figure 14: Average income of individuals by sex 'ZMW'; 2018



Average Incomes were established to be highest in Lusaka province Copperbelt province and Southern province estimated at ZMW 1838.30, ZMW 1,404 and ZMW 1,026.50 respectively. Western province, Muchinga province and Northern Province had the lowest average income for individuals aged 10 years and above amounting at ZMW 604.10, ZMW 492.40 and ZMW424 respectively.

Figure 15: Average income of individuals aged above 10 years by province 'ZMW'; 2018



3.0. Access and Usage of ICT Products and Services

3.0. Access and Usage of ICT Products and Services

This chapter discusses the extent of access and usage of diverse ICT products and services by households and individuals in Zambia. It highlights key trends in access and usage of ICT products and services over the period 2013, 2015 and 2018. An attempt is also made to explain some of the key constraints to increased access and usage of ICT products and services in the country. The chapter also provides some insights relating to quality of experience and challenges faced by users of ICT products and services in the country. Information presented in this chapter is disaggregated by region and in some instances further analysis is provided across various demographic and socio-economic characteristics. Particularly, the gender aspects relating to access and usage of ICT products and services are evaluated.

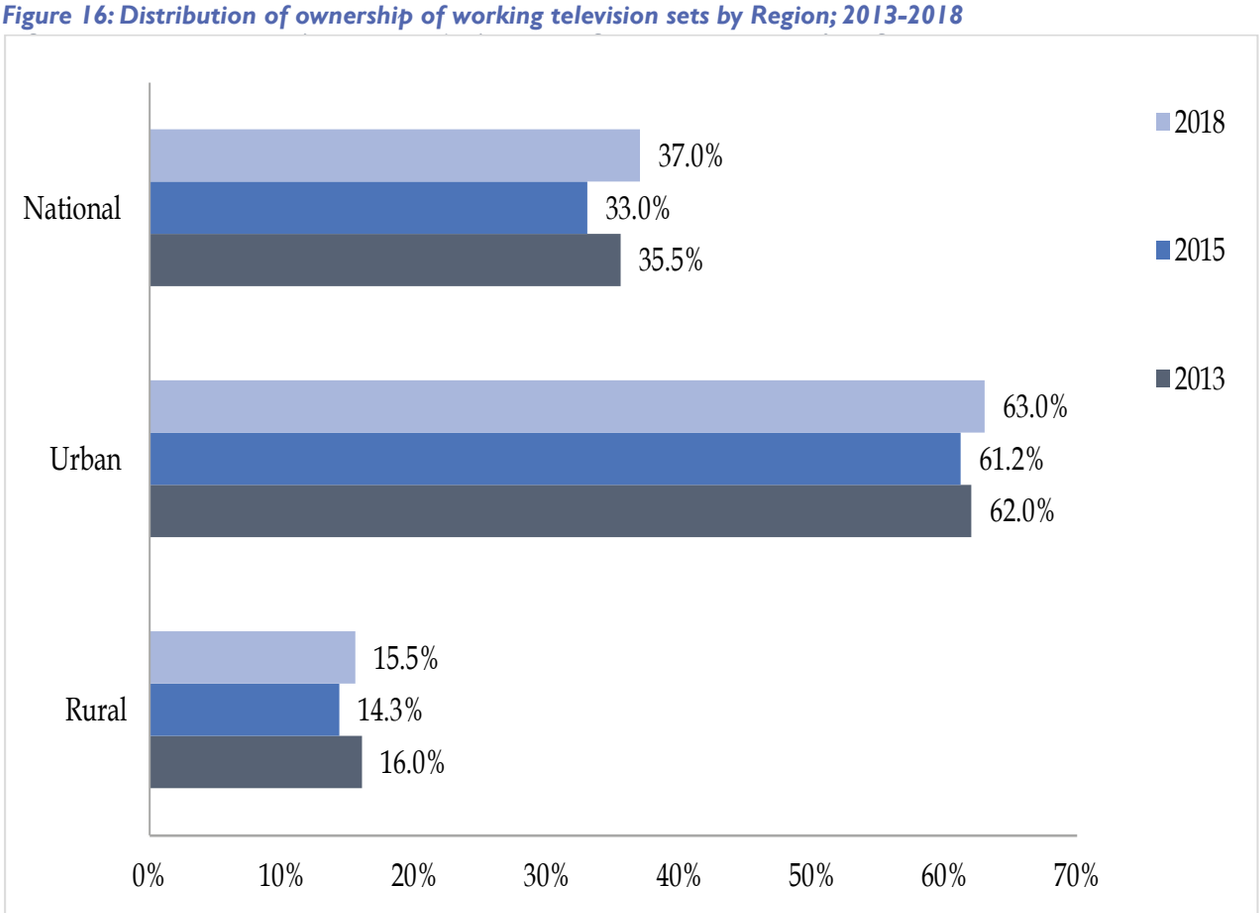
3.1. Access and Usage of ICTs by Households

3.1.1. Ownership of Television Sets and Access to Broadcasting Services

3.1.1.1. Ownership of Television Sets

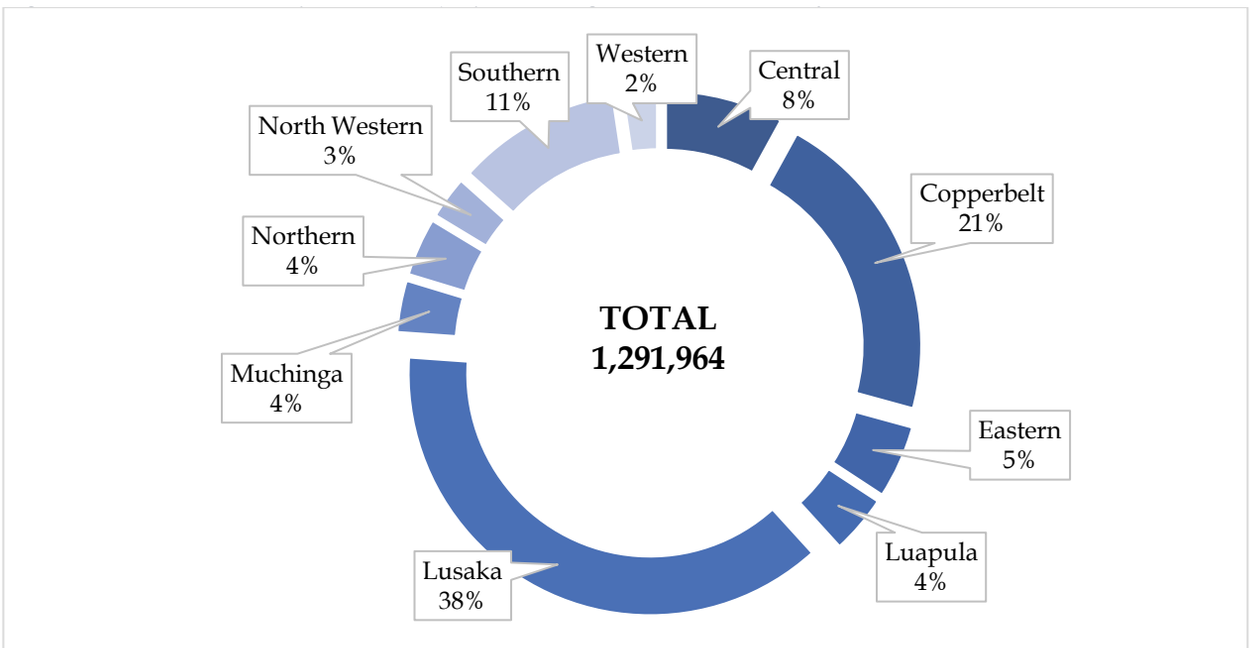
The proportion of households across the whole country with a working television set increased from 33.0 percent to 37.0 percent between 2015 and 2018. The distribution of ownership of television sets across regions remained consistent with previous surveys as 63.0 percent of the households located in urban areas reported that they own a working television set while only 15.5 percent of households located in rural areas indicated that they owned a working television set.

Figure 16: Distribution of ownership of working television sets by Region; 2013-2018



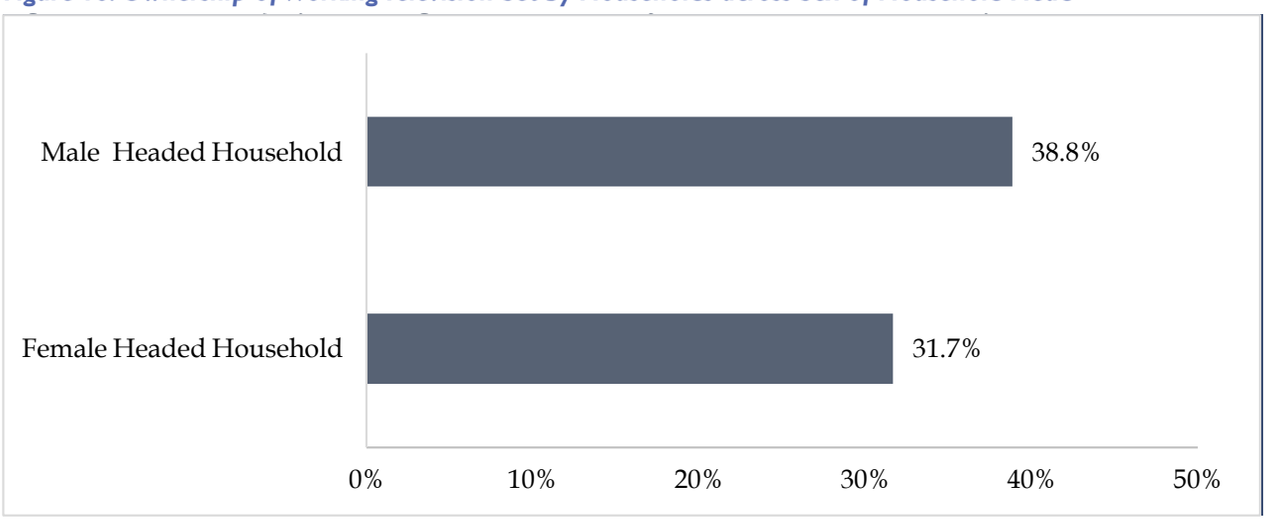
The largest proportion of households that own working television sets were based in Lusaka province and Copperbelt province constituting 38.0 percent and 21.0 percent of the total number of households that own a working television set respectively. The provinces with the least number of households that own a working television set were Western province and North-Western province accounting for 2.0 percent and 3.0 percent of the total number of households that own a working television set respectively.

Figure 17: Distribution of ownership of working television sets by province; 2018



There were relatively more male headed households that owned a working television set compared to the proportion of female headed households that owned a working television set. Specifically, 38.8 percent of the male headed households across the country reported that they owned a working television set while only 31.7 percent of the female headed households across the country indicated that they owned a working television set.

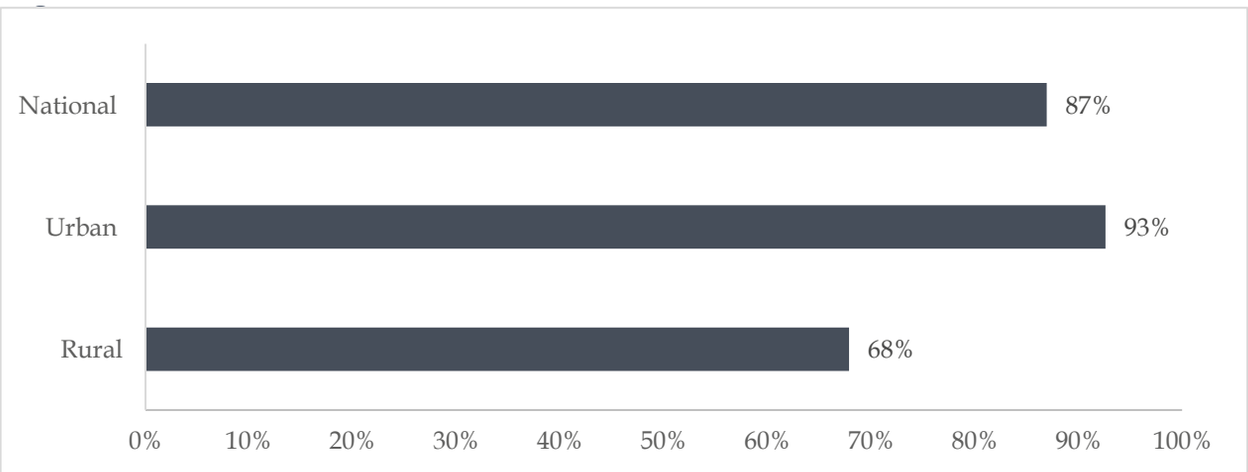
Figure 18: Ownership of Working Television Set by Households across Sex of Household Head



3.1.1.2. Access to Television Broadcasting Services

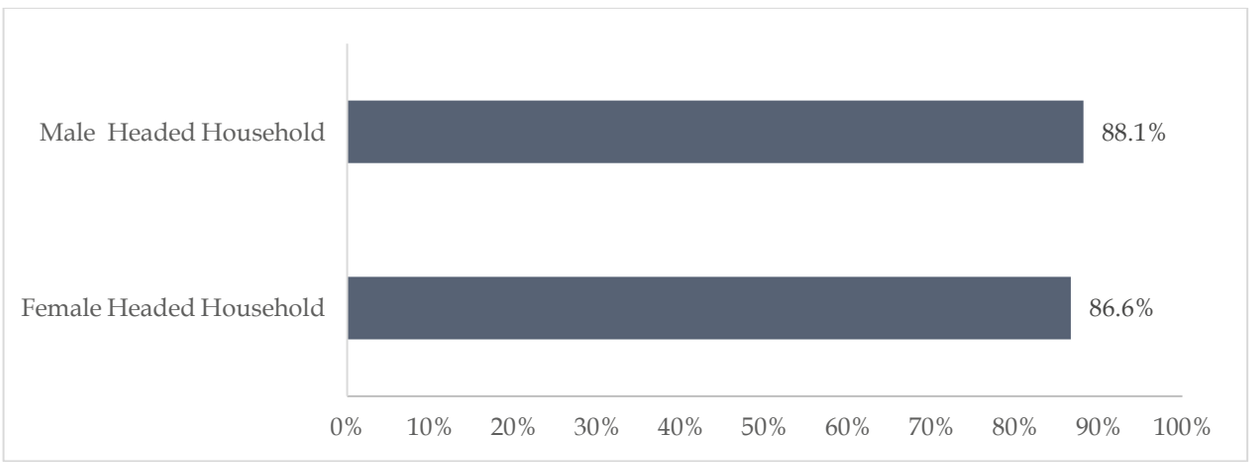
Considering only those households that reported that they owned television sets across the whole country, 87.0 percent of these households indicated that they had access to broadcasting services. There were relatively more households based in urban areas that reported that they owned television sets and had access to broadcasting services constituting 92.6 percent compared to only 67.8 percent of the households based in rural areas that indicated that they owned television sets and had access to broadcasting services.

Figure 19: Access to broadcasting services by households that own television sets by region; 2018



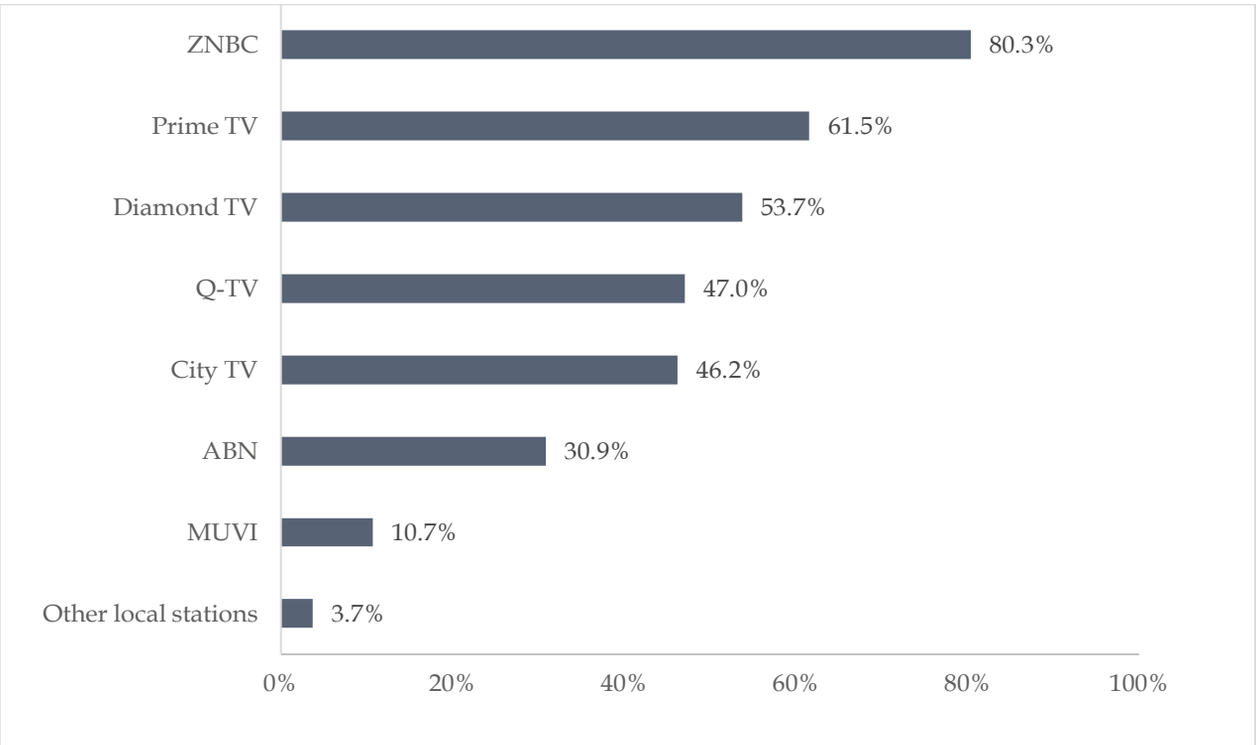
There were very minimal differences observed between female headed households that owned television sets and male headed households that owned television sets regarding access to broadcasting services. Specifically, 88.1 percent of the male headed households that reported that they owned television sets had access to broadcasting services compared to 86.6 percent of the female headed households that indicated that they owned television sets and had access to broadcasting services.

Figure 20: Access to Television Stations by Households that own Television Sets by Sex of Household Head



ZNBC television stations remain the most widely accessed local television stations by households that own working television sets in Zambia. Specifically, 80.3 percent of the households that own working television sets in the country have access to at least one ZNBC television station. Prime TV, Diamond TV and Q-TV equally had a larger proportion of households that own working television sets and have access to local television stations constituing 61.5 percent, 53.7 percent and 47.0 percent respectively. Muvi TV was among the least accessed local television stations by households that owned a working television set accounting for 10.7 percent.

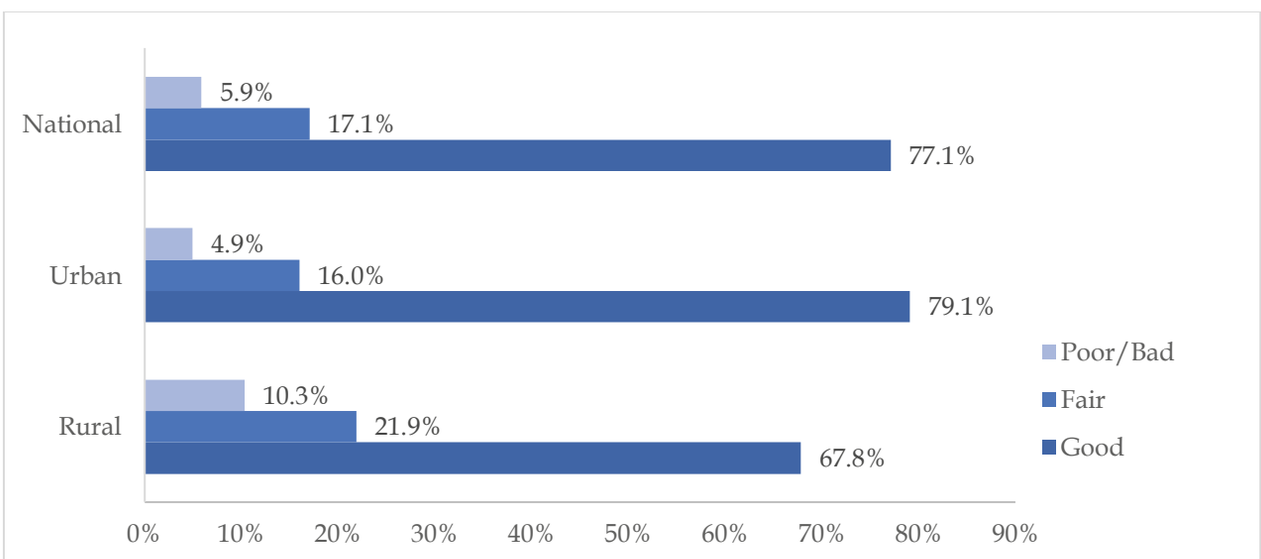
Figure 21: Access to local television channels by households with working television sets; 2018



3.1.1.3. Perceptions on Quality of Experience for Television Broadcasting Services

The majority of the households that reported to have access to ZNBC television stations rated the quality of the reception as good. Specifically, 77.1 percent of the households that indicated that they had access to ZNBC television stations rated the quality of the reception as good. However, the proportion of households that rated the quality of the reception for ZNBC television services as good was relatively higher in urban areas than in rural areas. 79.1 percent of the households in urban areas that had access to ZNBC television services rated the quality of the reception as good while only 67.8 percent of the households in rural area that had access to ZNBC television services rated the quality of the reception as good.

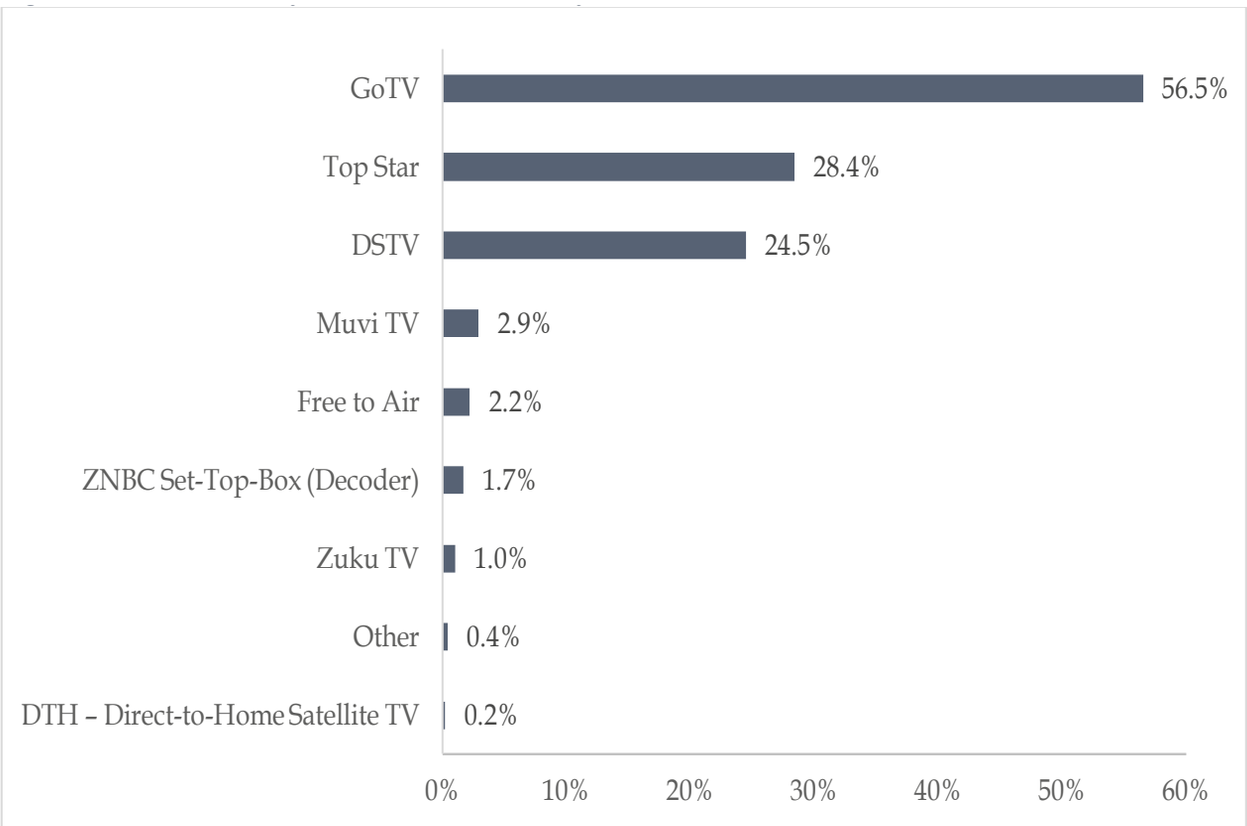
Figure 22: Perceptions on quality of reception for ZNBC television services by households across regions; 2018



3.1.1.4. Access to Pay Television Services

GoTV and Topstar recorded the highest frequency of households that indicated that they owned a working television set which was used to access broadcasting services and had access to pay television channels constituting 56.5 percent and 28.4 percent respectively. Direct to Home Satellite television services were the least accessed pay TV services accounting for less than 1 percent of households that indicated that they owned a working television set which was used to access broadcasting services. Access to ZNBC Set-Top- Boxes was relatively lower than most pay TV services accounting for 1.7 percent of the households that indicated that they owned a working television set which was used to access broadcasting services.

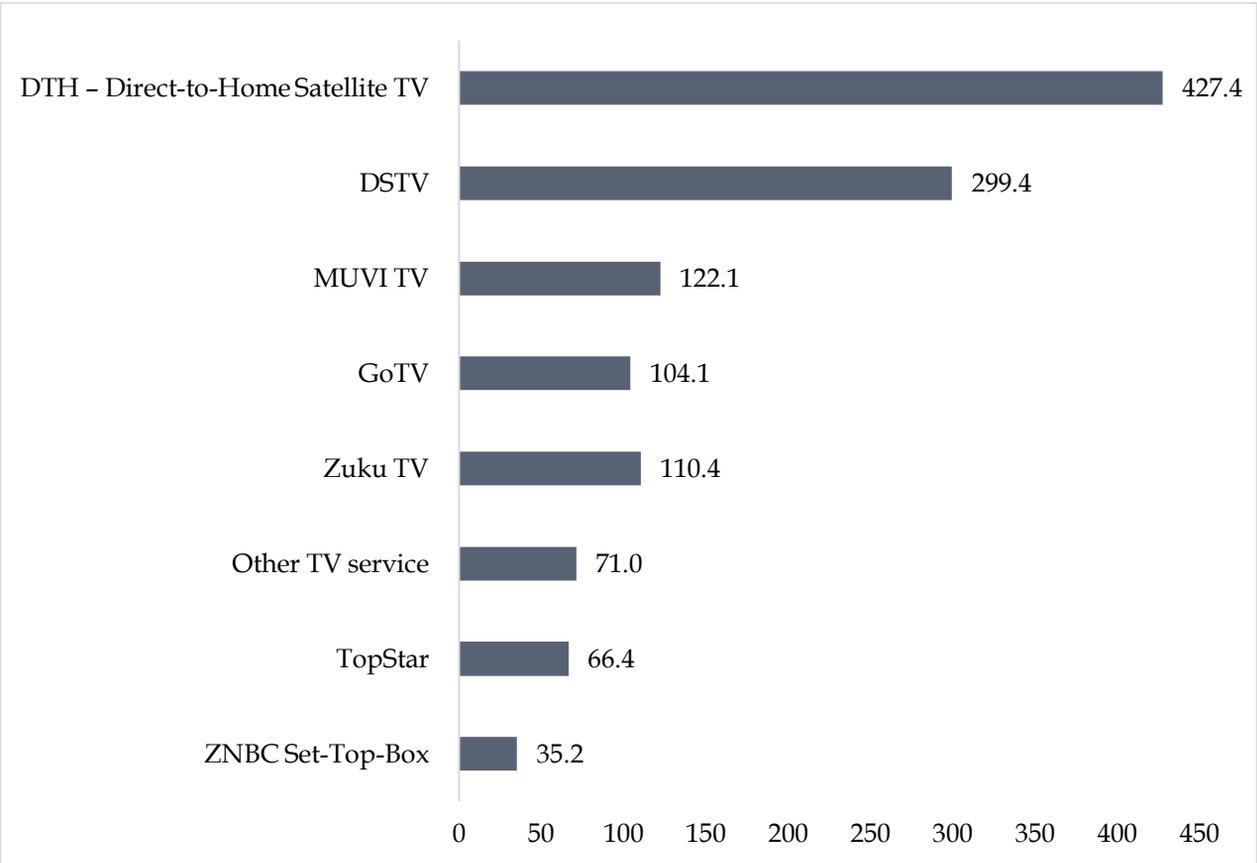
Figure 23: Access to pay television services by households



3.1.1.5. Affordability of Pay Television Channels

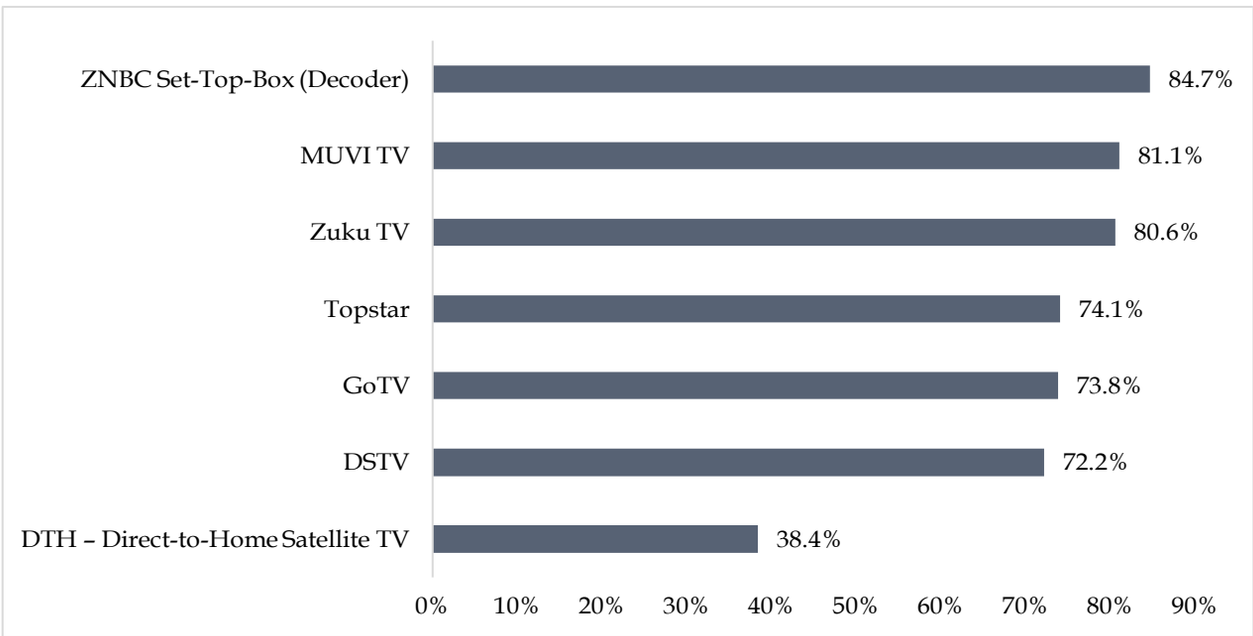
Direct-to-Home satellite television services and DSTV services were reported to have the highest average expenditure per month among households that access broadcasting services amounting ZMW 427.40 and ZMW 299.40 respectively. On the other hand, the lowest expenditure incurred on Pay television services per month by households that access broadcasting services was reported towards ZNBC Set-Top-Box subscriptions and TopStar subscriptions amounting ZMW 35.20 and ZMW 66.40 respectively.

Figure 24: Average expenditure on pay television services by households 'ZMW'; 2018



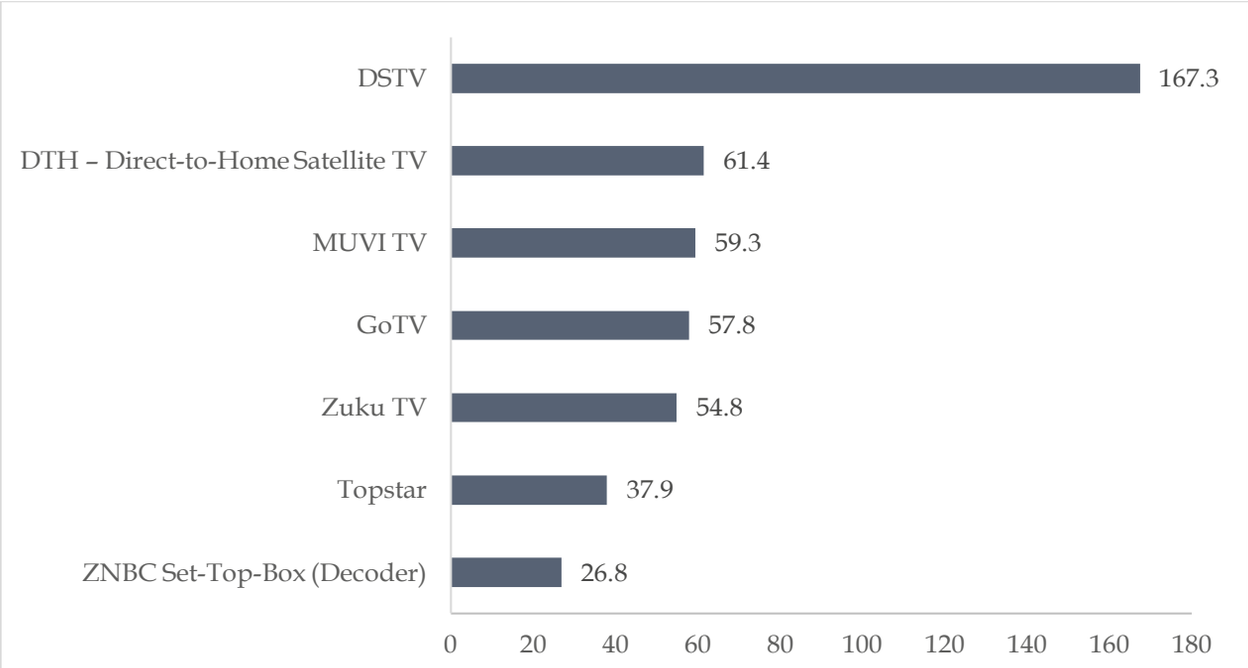
Affordability, which encompasses both a household's income endowment and pricing, is an important attribute to access and usage of ICTs. Most of the households that access pay television services were of the view that pay television services were affordable. However, Direct-to-Home satellite television services had recorded the lowest proportion of households that perceived the services to be affordable constituting 38.4 percent of the households that access direct to home satellite television services. All the pay television services considered had a proportion of more than 70 percent of the households that access the services report that the services were affordable. The majority of households access ZNBC Set-top Box, Muvi television and Zuku television constituting 84.7 percent, 81.1 percent and 80.6 percent respectively.

Figure 25: Proportion of Households that reported that Pay Television Services are Affordable; 2018



Households that indicated that the pay television services that they accessed were not affordable, provided estimates of their maximum willingness to pay for the television services they accessed. DSTV services and Direct-to-Home Satellite television services had the highest average amount that households accessing the service were willingness to pay of ZMW 167.30 and ZMW61.40 respectively. On the other hand, ZNBC set-top box and Topstar had the least average amount that households that accessed the services were willing to pay.

Figure 26: Average willingness to pay for pay television stations; 2018

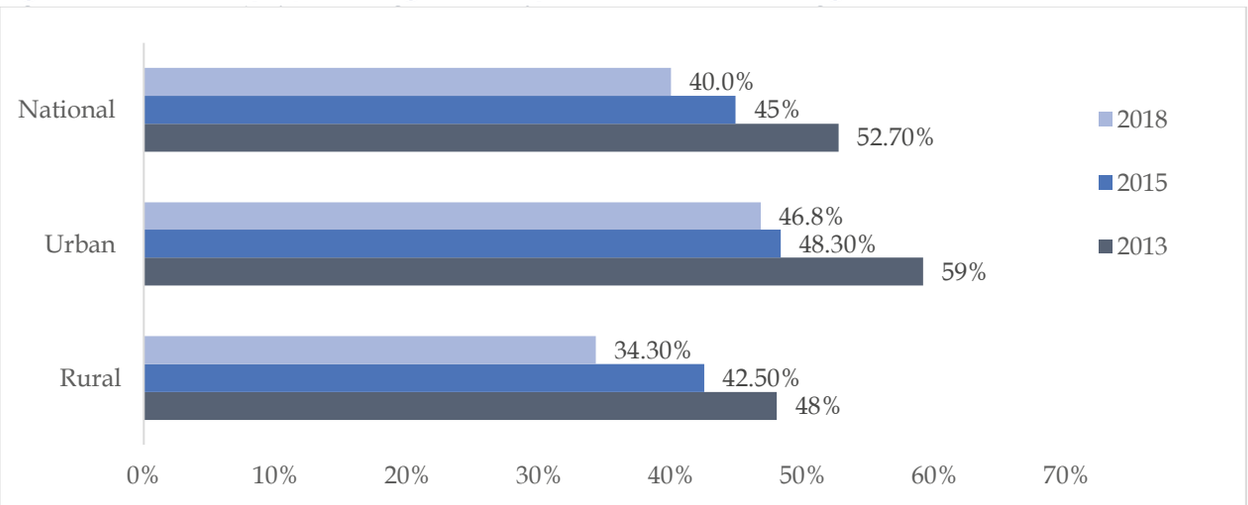


3.1.2. Ownership of Working Radios and Access to Radio Stations

3.1.2.1. Ownership of Working Radios

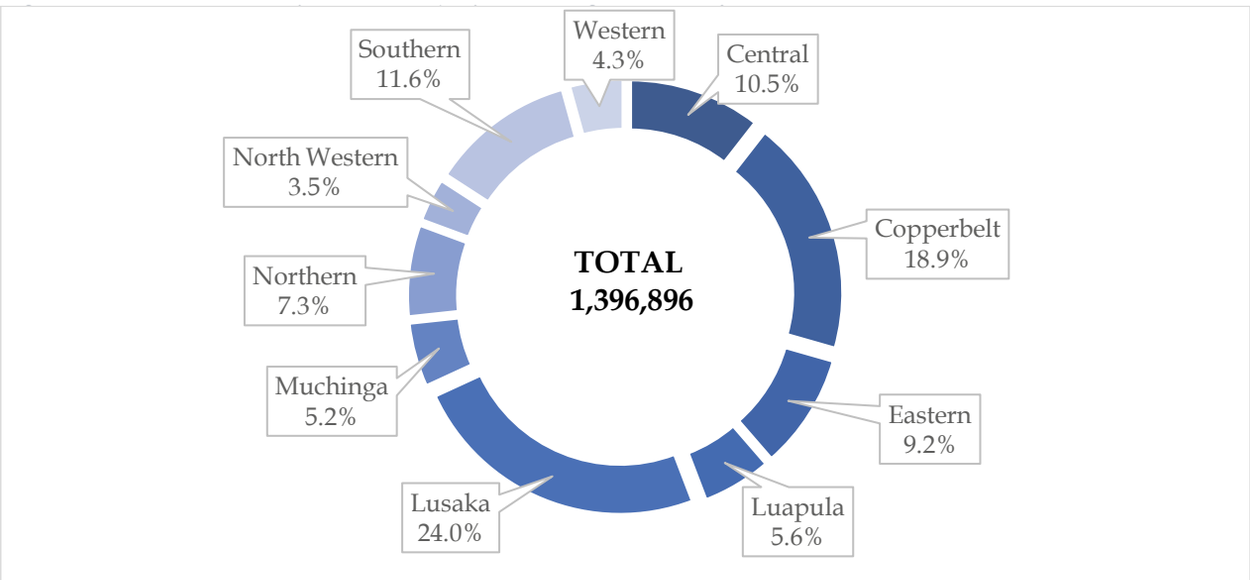
The ownership of working radios by households continued to decline in 2018 consistent with the findings in earlier surveys. The proportion of households across the country that own a working radio reduced from 45 percent in 2015 to 40 percent in 2018. This pattern of ownership of working radios was consistent within regions. However, there were some notable differences in the ownership of radios across regions. 46.8 percent of the households located in urban areas reported to own a working radio while only 34.3 percent of households located in rural areas indicated that they owned a working radio.

Figure 27: Ownership of Working Radios by Households across Regions; 2018



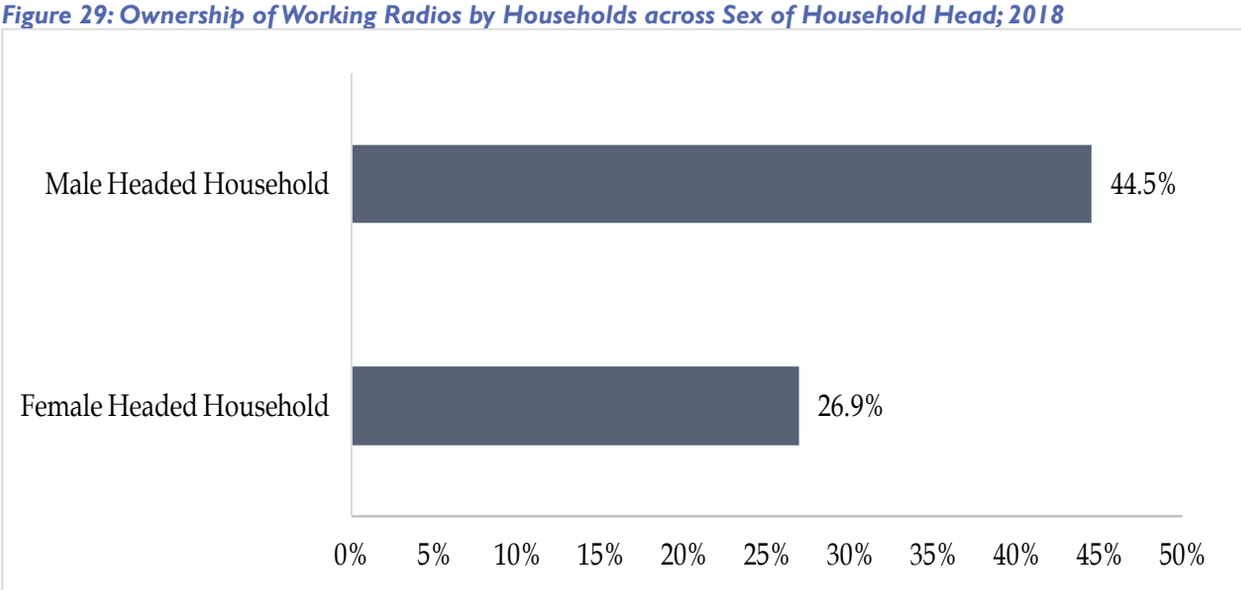
The largest proportion of households that reported that they owned a working radio were based in Lusaka province, Copperbelt province and Southern province accounting for 24 percent, 19 percent and 12 percent respectively. The provinces with the least proportion of households that own a working radio were Western and North Western accounting for 4.3 percent and 3.5 percent respectively.

Figure 28: Distribution of Ownership of Working Radios by Households across Provinces



The proportion of households headed by males that indicated that they own a working radio was relatively higher than the proprotion of households headed by females that indicated that they own a working radio. Specifically, 44.5 percent of the male headed households indicated that they own a working radio while only 26.9 percent of the households headed by females indicated that they own a working radio.

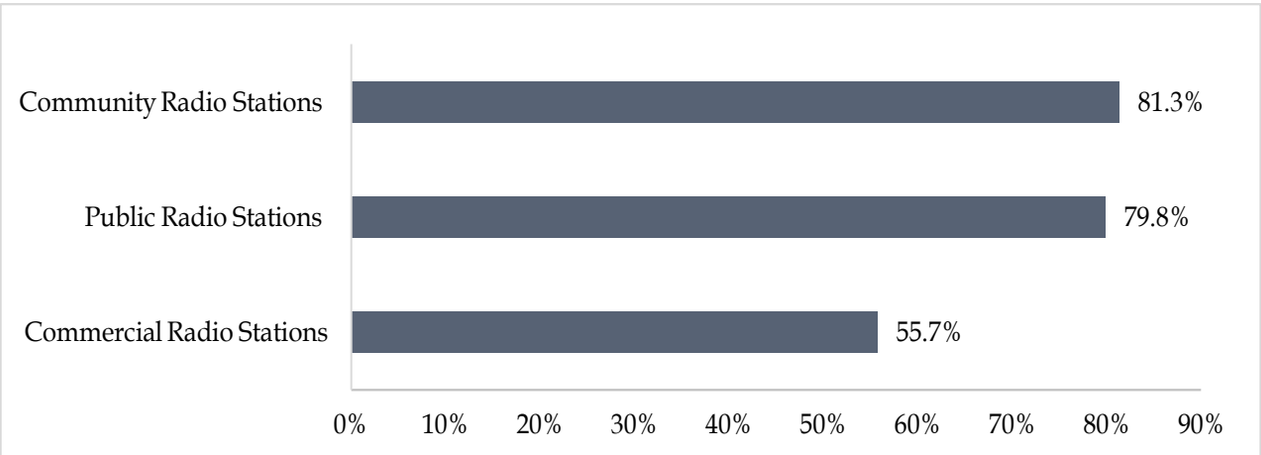
Figure 29: Ownership of Working Radios by Households across Sex of Household Head; 2018



3.1.2.2. Access to Radio Stations

The majority of households in the country that own working radios indicated that they access community radio stations compared to the proportion of households that access public radio stations and commercial radio stations. Specifically, 81.3 percent of the households that own working radios access community radio stations while only 79.8 percent and 55.7 percent access public radio stations and commercial radio stations respectively.

Figure 30: Access to radio stations by households across type of radio station; 2018



3.1.2.3. Perceptions on Quality of Radio Reception

The quality of radio reception was reported to be relatively better on commercial radio stations and community radio stations than the public radio stations. Specifically, 77.2 percent of the households that indicated that they own a working radio and have access to commercial radio stations reported that the quality of radio reception was good while 75.1 percent of the households that indicated that they own a working radio and have access to community radio stations rated the quality of the reception as good. On the other hand, only 61.8 percent of the households that indicated that own a working radio and reported that they have access to public radio stations indicated that the quality of the radio reception was good. Similarly, 12.8 percent of the households that indicated that they own a working radio and have access to public radio stations reported that the quality of the reception was poor. On the other, only 4.4 percent of the households that indicated that they own a working radio and have access to commercial radio stations reported that the quality of the reception was poor while 4.1 percent of the households that indicated that they own a working radio and have access to community radio stations reported that the quality of the reception was poor.

Table 3: Perceptions on Quality of Radio Reception by Households

Quality Of Radio Reception	Commercial Radio Stations	Community Radio Stations	Public Radio Stations
Good	77.20%	75.10%	61.80%
Fair	19.10%	21.70%	26.40%
Poor/Bad	4.40%	4.10%	12.80%

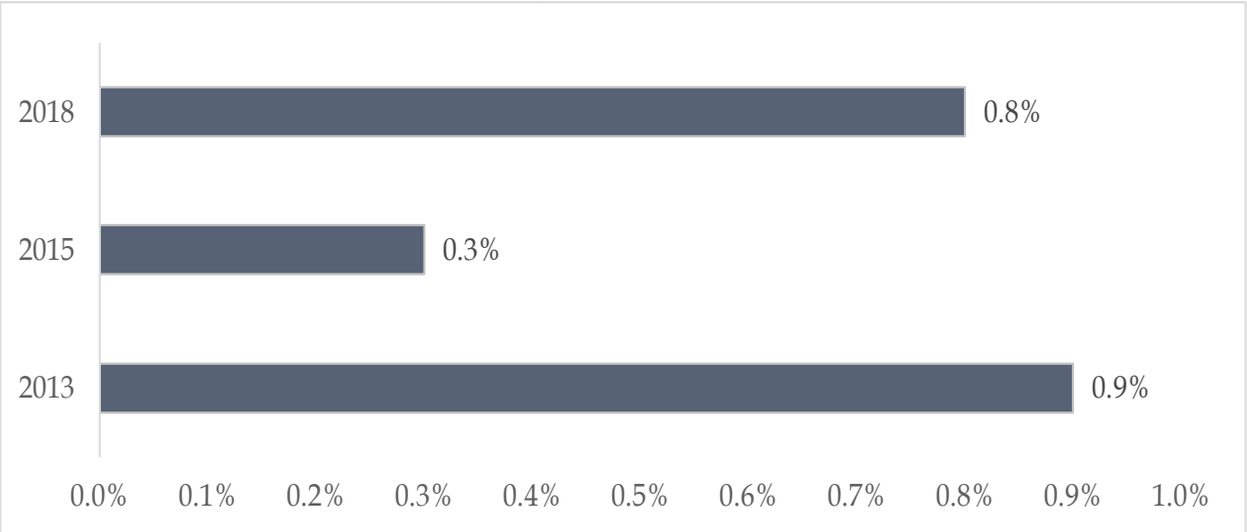
3.1.3. Access and Usage of Fixed Telephone Line Services

3.1.3.1. Ownership of Fixed Telephone Lines

The proportion of households that reported that they owned a fixed telephone line remained negligible accounting for less than 1 percent of the total number of households across the country. However, there was some noted improvement in the proportion of households that had access to fixed telephone lines from 0.3 percent to 0.8 percent between 2015 and 2018[14].

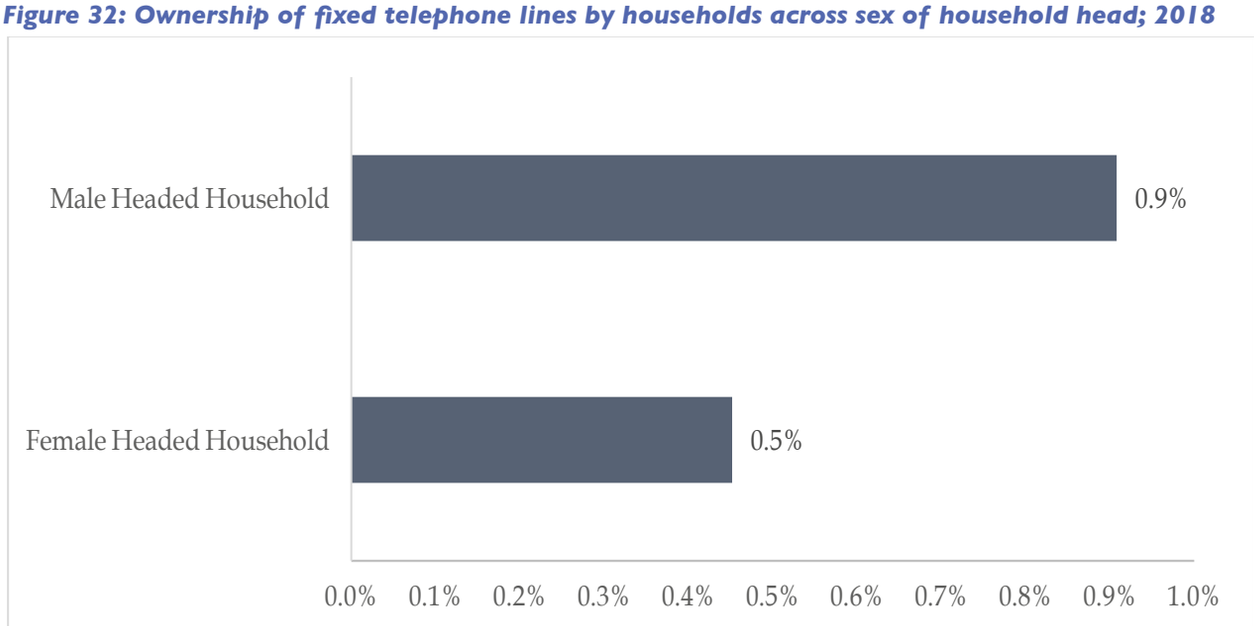
[14] In the 2018 survey, fixed telephone lines were not limited to PSTN as the case in previous surveys but also included SIM card based fixed telephones and Internet Protocol (IP) fixed telephones owned by households.

Figure 31: Ownership of fixed telephone lines by households; 2015-2018



The proprotion of male headed households that reported that they own a fixed telephone line was relatively higher than the proportion female headed households that reported that they own a fixed line. Specifically, 0.9 percent of the male headed households reported that they own a fixed line while only 0.5 percent of the female headed households indicated that they own a fixed telephone line.

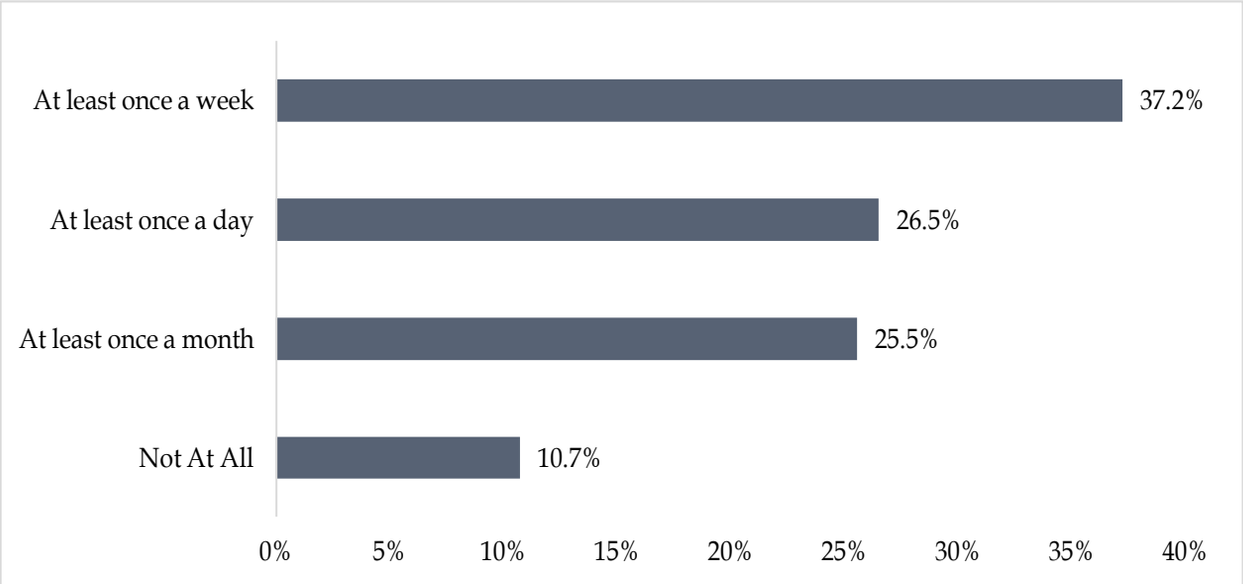
Figure 32: Ownership of fixed telephone lines by households across sex of household head; 2018



3.1.3.2. Usage of Fixed Telephone Lines

The majority of households that reported to own a fixed telephone line that was operational, only used the device at least once a week, accounting for 37.2 percent of the total number of households that own a fixed line that is operational. However, it was also noted that about 10.7 percent of the households that own a fixed telephone line that is operational never use the facilities. Only 26.5 percent of the households that own a fixed telephone line that is operational indicated that they use the devices at least once a day.

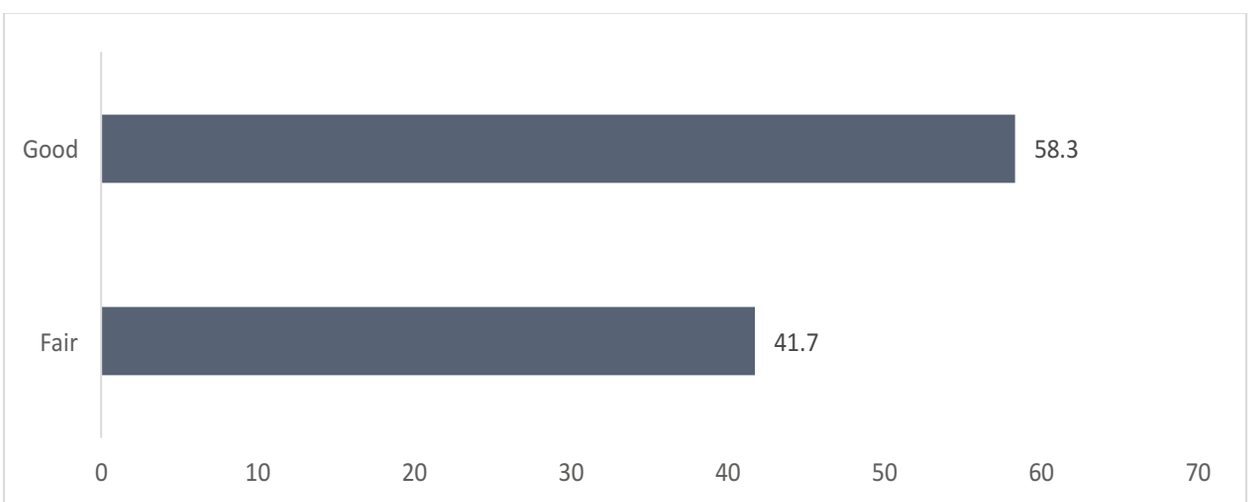
Figure 33: Intensity of usage for fixed telephone lines by households; 2018



3.1.3.3. Quality of Experience for Fixed Telephone Lines

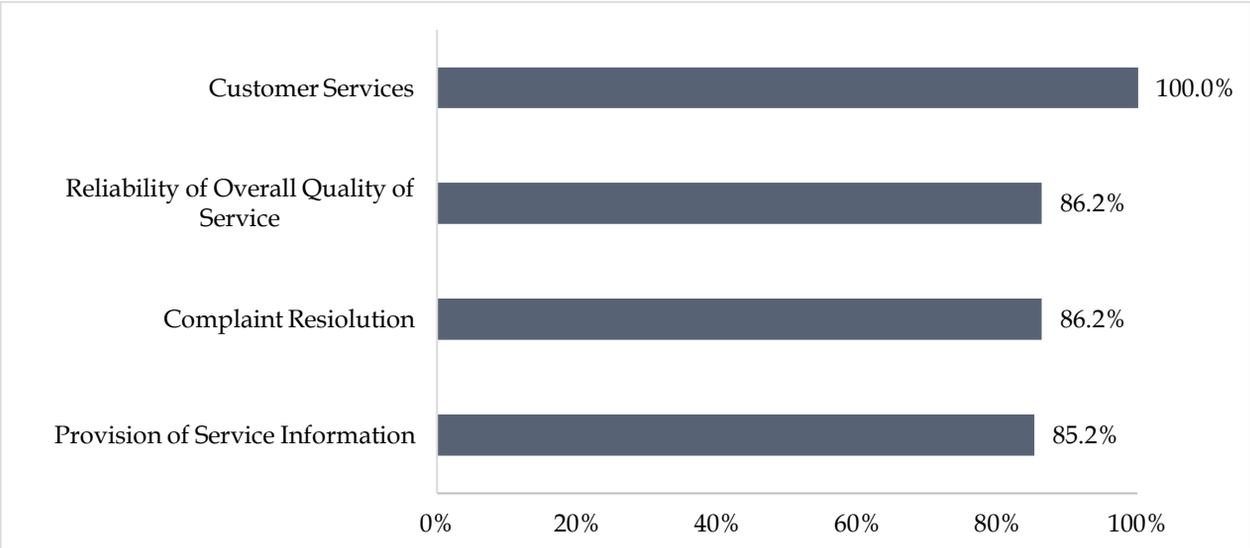
All the households that indicated that they own fixed telephone lines that are functional and have used the lines before, had either a fair or good rating of the quality of the fixed line services. Specifically, 58.3 percent of all the households that indicated that they own fixed lines that are functional and have used the lines before indicated that the quality of the fixed line services are good while the remainder indicated that they are fair.

Figure 34: Perceptions on quality of services for fixed telephone lines by households; 2018



Most of the households that indicated that they own fixed lines that are functional and have used the lines before were very satisfied with the various attributes of service delivery that were investigated. For instance, all the households that indicated that they own fixed lines that are functional and have used the lines before reported that they were satisfied with customer services. 86.2 percent of the households that indicated that they own fixed telephone lines that are functional and have used the lines before reported that they were satisfied with the reliability of overall quality of service.

Figure 35: Proportion of households satisfied with fixed line services; 2018



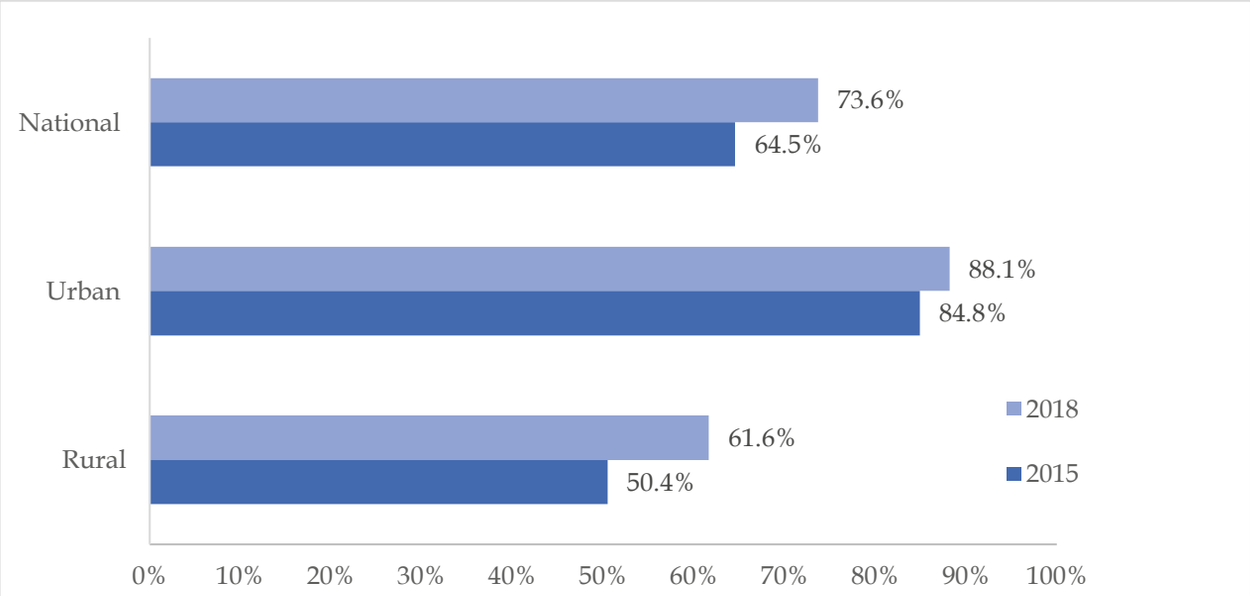
The majority of the households that indicated that they own fixed telephone lines that are functional and have been used before, accounting for 83.1 percent, indicated that they find fixed telephone line services affordable. The average monthly expenditure on fixed telephone line services was reported at ZMW 144.00 by households that indicated that they own fixed telephone lines that are functional and have been used before. The average willingness to pay for fixed telephone line services per month reported by those households that indicated that they own fixed telephone lines that are functional and have been used before but found the service not affordable, was ZMW 100.00.

3.1.4. Access and Usage of Mobile Cellular Line Services by Households

3.1.4.1. Ownership of Mobile Cellular Telephone by Households

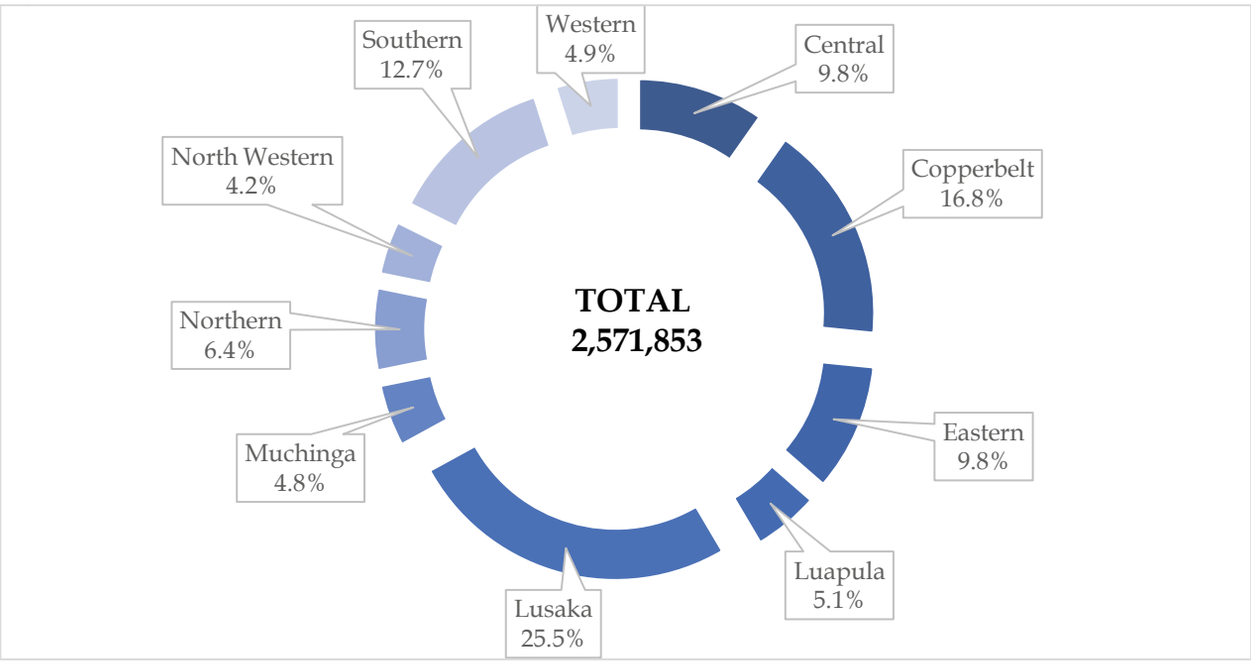
Ownership of mobile cellular telephones by households in the country increased from 64.5 percent reported in 2015 to 73.6 percent in 2018. The disparity in ownership of mobile cellular telephones by households across regions persisted with a relatively higher proportion of households that are located in urban areas indicating that they own a mobile telephone compared to households situated in rural areas. Specifically, 88.1 percent of the households that are located in urban areas indicated that they own a mobile cellular telephone while only 61.6 percent of the households based in rural areas indicated that they own a mobile cellular telephone.

Figure 36: Ownership of mobile phones by households across regions; 2015-2018



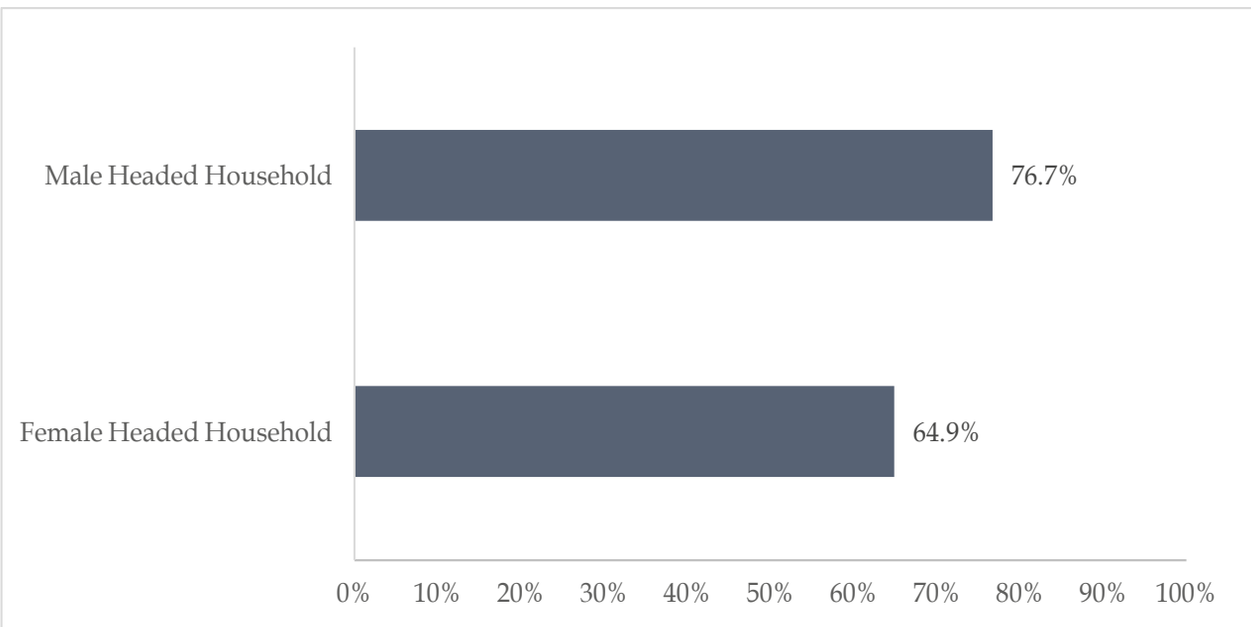
The majority of the households that reported to own a mobile cellular telephone are located in Lusaka province, Copperbelt province and Southern province accounting for 25.5 percent, 16.8 percent and 12.7 percent respectively. Western, Muchinga and North Western province accounted for the smallest proportion of households that indicated that they own a mobile phone constituting 4.9 percent, 4.8 percent and 4.2 percent respectively.

Figure 37: Distribution of households that reported that they own a mobile phone by province; 2018



the proportion of male headed households that indicated that they own a mobile cellular telephone was relatively higher than the proportion of female headed households that reported that they own a mobile cellular telephone. Specifically, 76.7 percent of the male headed households indicated that they own a mobile cellular telephone while only 64.9 percent of the female headed households indicated that they own a mobile cellular telephone.

Figure 38: Proportion of Households that own a mobile cellular telephone by sex of head of household; 2018

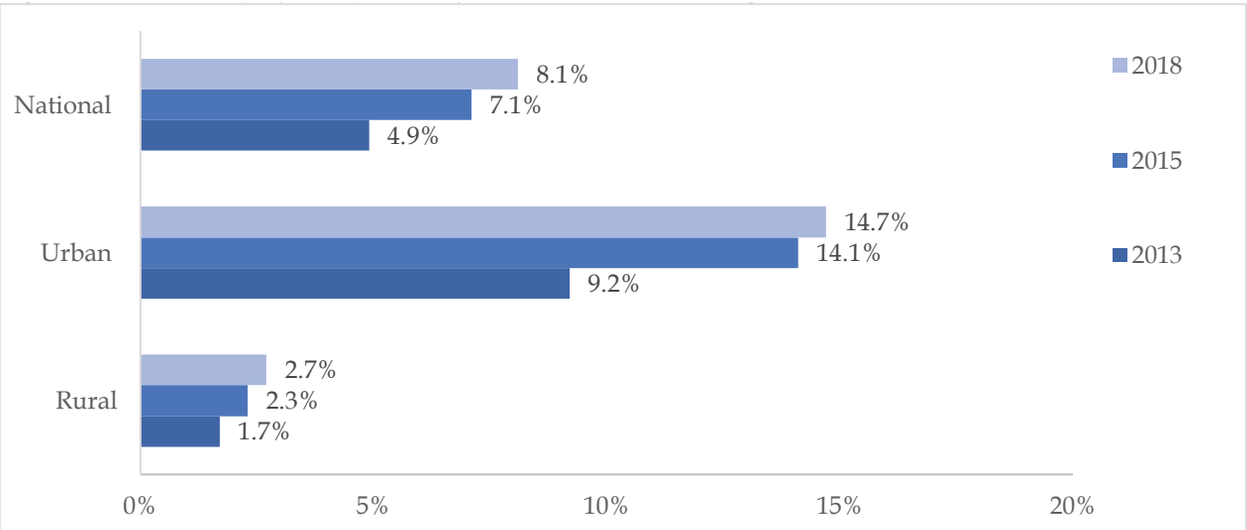


3.1.5. Access and Usage of Computers by Households

3.1.5.1. Ownership of Computers by Households

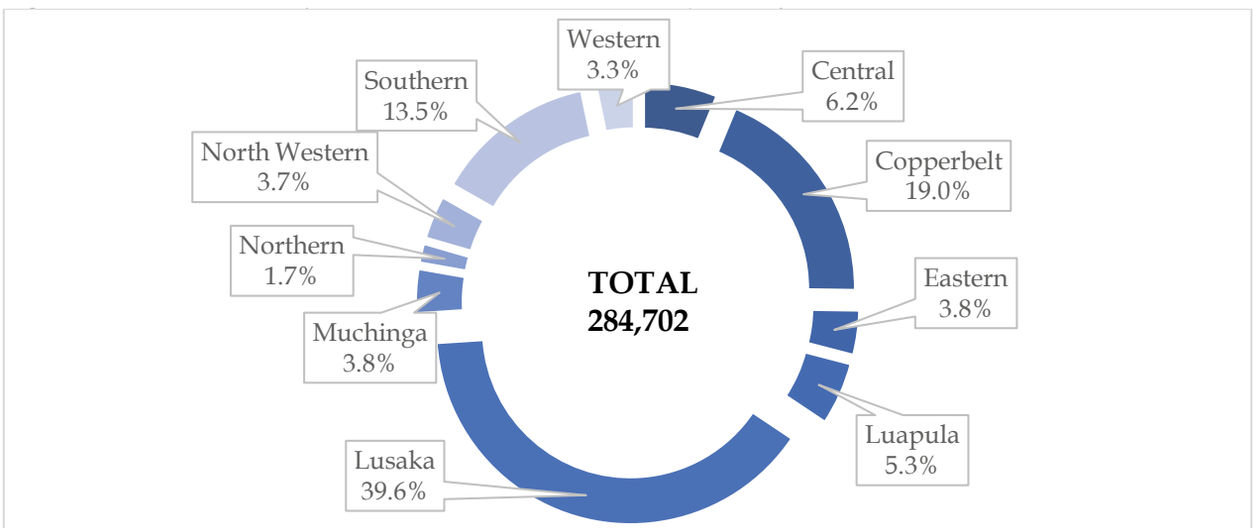
The proportion of households across the country that indicated that they own a computer increased from 7.1 percent to 8.1 percent between 2015 and 2018 reflecting a continued improvement in ownership of computers by households in Zambia. However, the imbalance between households that are situated in rural areas that own a computer relative to households that are based in urban areas persisted. Specifically, 14.7 percent of the households in urban areas own a computer while only 2.7 percent of households based in rural areas own a computer.

Figure 39: Ownership of computers by households across regions; 2013-2018



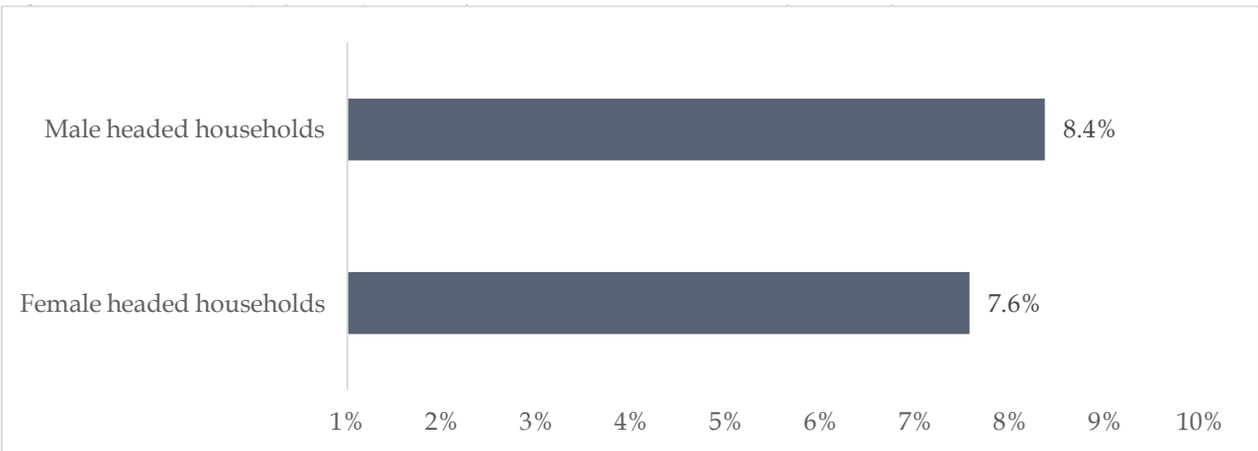
The majority of the households that indicated that they own a computer were located in Lusaka Province, Copperbelt Province and Southern Province constituting 39.6 percent, 19 percent, and 13.5 percent of the total number of households that indicated that they own a computer respectively. Northern Province, Western Province and North-western Province accounted for the smallest proportion of households that indicated that they own a computer constituting 1.7 percent, 3.3 percent and 3.7 percent of the total number of households that indicated that they own a computer respectively.

Figure 40: Distribution of households that own a computer by province; 2018



the proportion of male headed households that indicated that they own a computer was relatively higher than the proportion of female headed households across the country that reported that they own a computer. Specifically, 8.4 percent of the male headed households across the country indicated that they owned a computer while 7.6 percent of the female headed household reported that they owned a computer.

Figure 41: Ownership of computers by households across sex of head of household; 2018

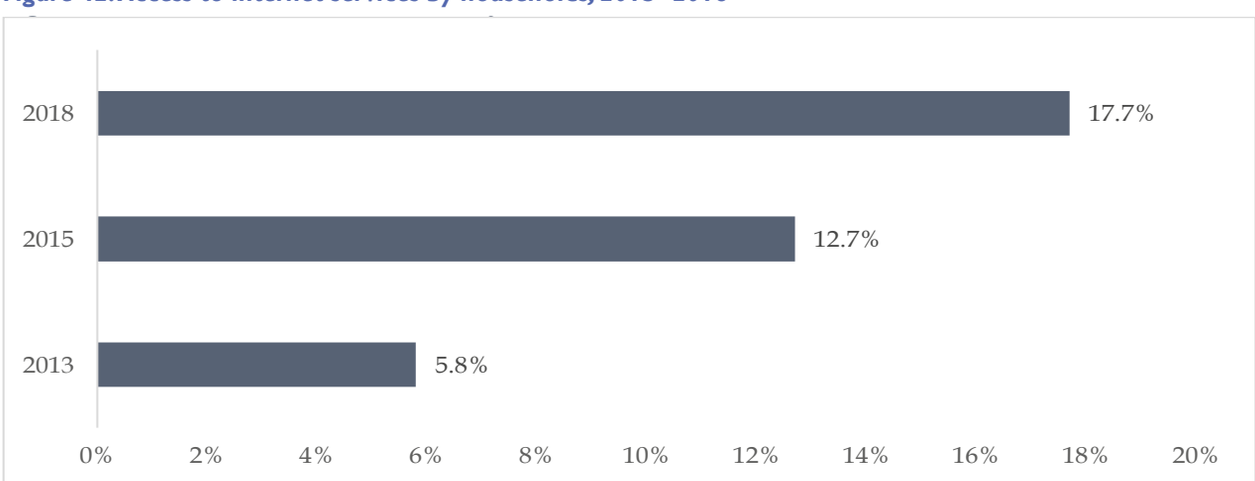


3.1.6. Access and Usage of Internet Services by Households

3.1.6.1. Access to Internet Services by Households

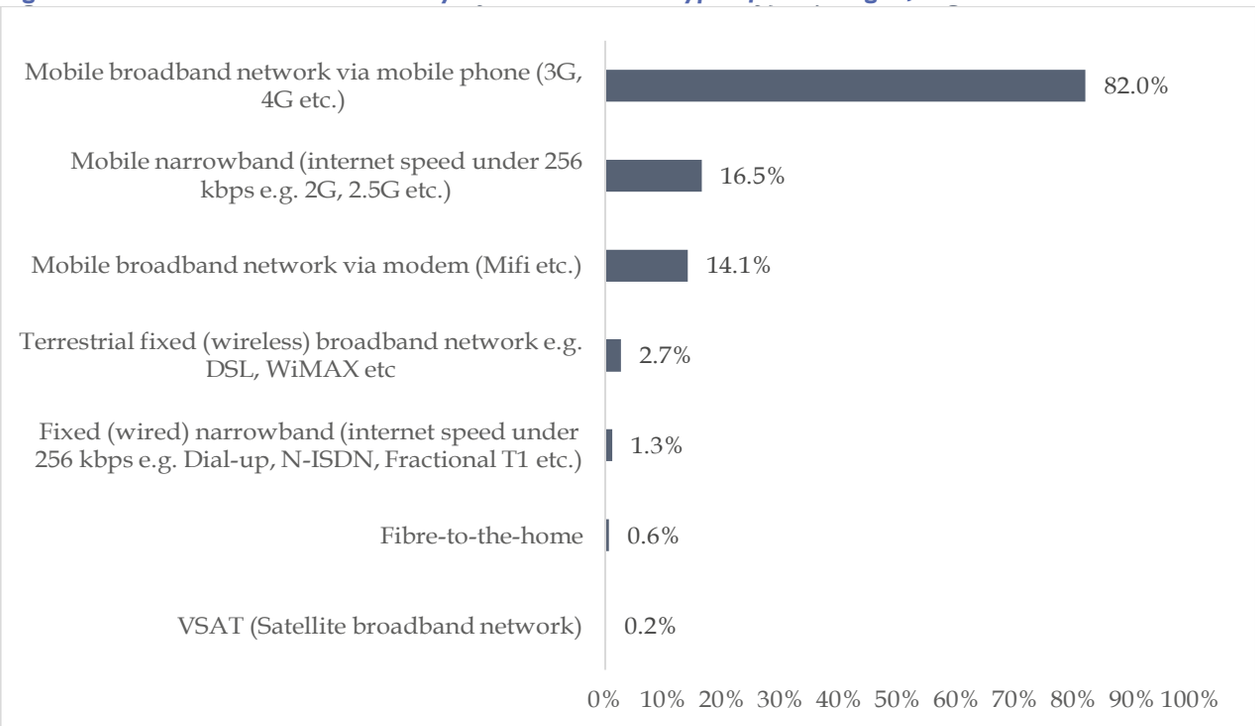
Access to internet services by households increased between 2015 and 2018 from 12.7 percent to 17.7 percent. This is consistent with the improvement recorded between 2013 and 2015 highlighting continued increased access to internet services by households across the country. 31.2 percent of the households in urban areas indicated that they have access to internet services while only 6.6 percent of the households in rural areas had access to internet services. An equal proportion of 17.8 percent of households headed by males or females reported that they had access to internet services.

Figure 42: Access to internet services by households; 2013- 2018



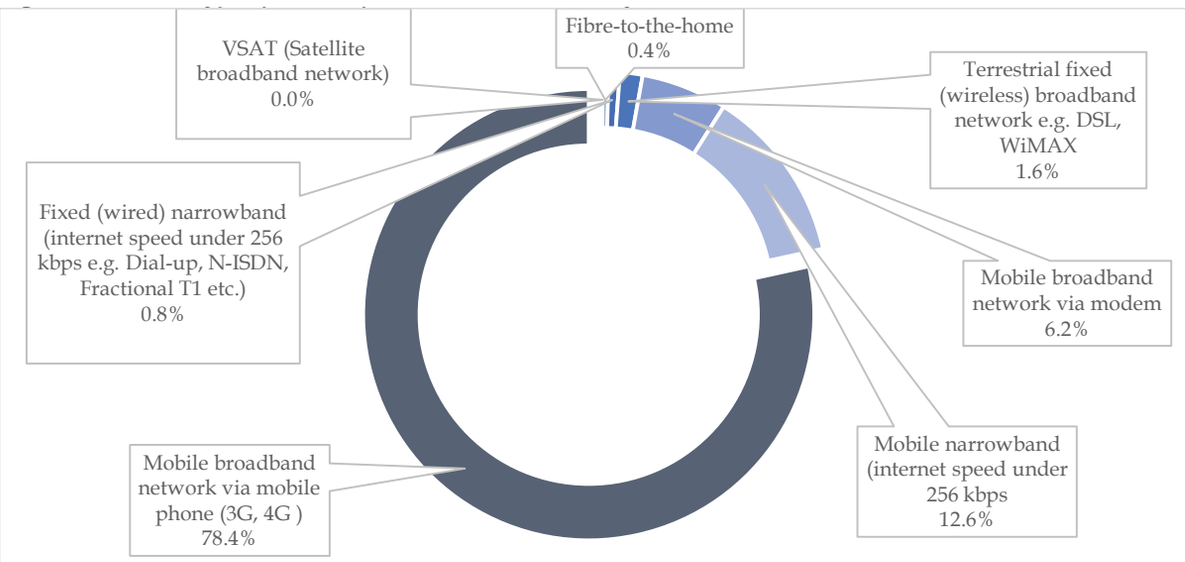
the majority of the households with access to internet services, accounting for 82 percent of the total number of households with access to internet services, access mobile broadband services using a mobile phone. A sizeable number of households also access mobile narrowband services and mobile broadband services using a modem accounting for 16.5 percent of the total number of households with access to internet services and 14.1 percent of the total number of households with access to internet services respectively. Only 2.7 percent of the households with access to the internet access fixed wireless broadband services while 1.3 percent of the total number of households with access to internet services using fixed wired narrowband technologies. Access to Fibre-to-the-home (FTTH) technologies and VSAT technologies by households was very minimal accounting for less than 1 percent of the total number of households with access to internet services.

Figure 43: Access to internet services by households across type of technologies; 2018



The main type of technology adopted by households as their main source of internet services was reported to be mobile broadband network via mobile phone accounting for 78.4 percent of the total number of households that access internet services. VSAT and FTTH accounted for the least proportion of households that indicated that the technologies were their main source of internet services.

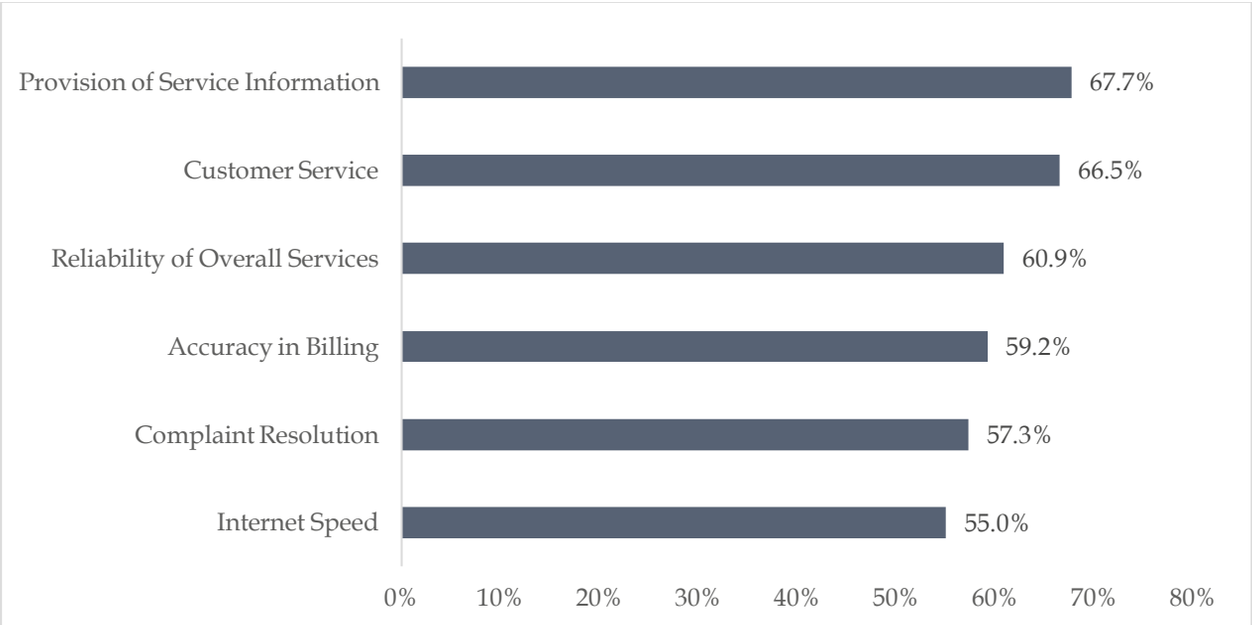
Figure 44: Main type of source for internet services by households



3.1.7. Perceptions on Quality of Experience for Internet Services

The majority of households that had access to internet services were satisfied with various attributes of service delivery. Particularly, most households that reported that they had access to internet services were satisfied with attributes of service delivery relating to provision of service information, customer service and overall reliability of services accounting for 67.7 percent of the households that had access to internet services, 66.5 percent of the households that had access to internet services and 60.9 percent of the households that had access to internet services respectively. The proportion of households that indicated that they had access to internet services and were satisfied with internet speed and complaint resolution were relatively low accounting for 55.0 percent of the households that had access to internet services and 57.3 percent of the households that had access to internet services.

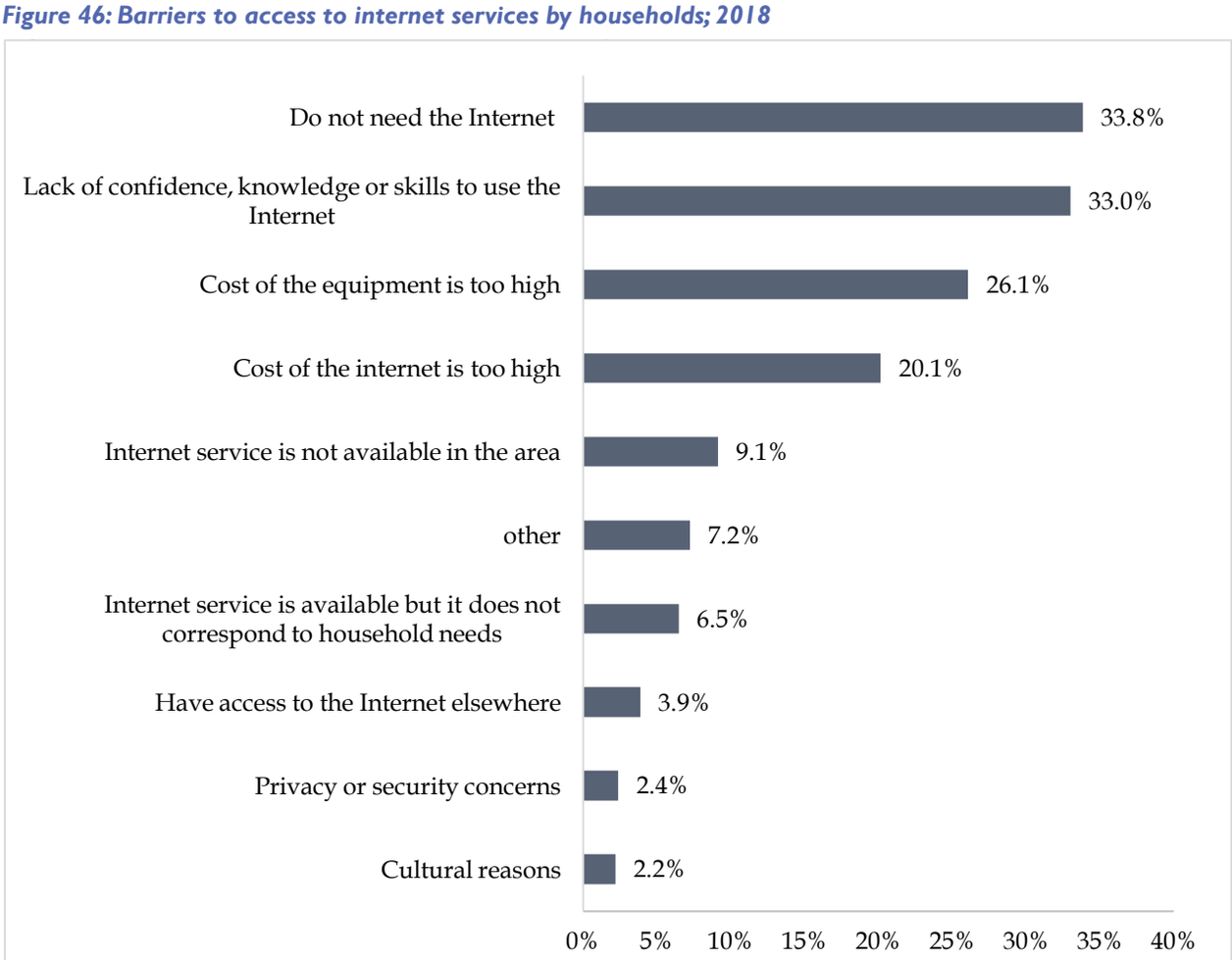
Figure 45: Perceptions on attributes of quality of experience



3.1.8. Barriers to Access to Internet Services

The main barriers to access to internet services cited by households included a lack of appreciation of the need for internet, lack of skills to use the services and the high cost of the required equipment accounting for 33.8 percent, 33 percent and 26.1 percent of the total number of households that indicated that they do not have access to internet services respectively.

Figure 46: Barriers to access to internet services by households; 2018

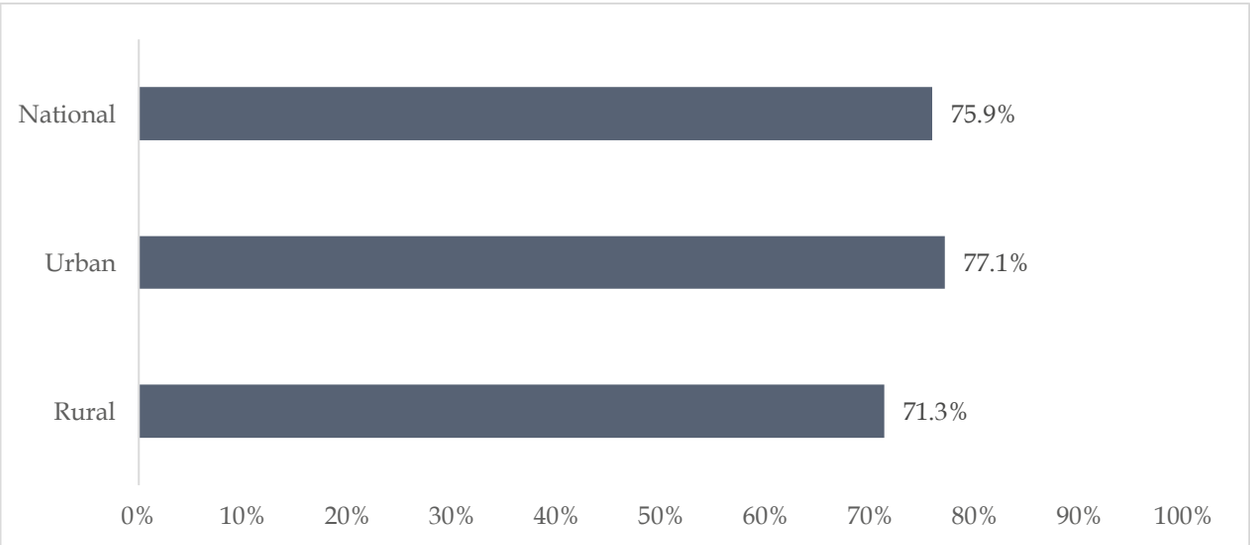


3.1.9. Affordability of Internet Services

3.1.9.1.Perceptions on Affordability of Internet Services

The majority of households across the country that have access to internet services were of the view that internet services are affordable. Specifically, 75.9 percent of the households that indicated that they had access to internet services had the perception that internet services were affordable. Similarly, there were more households in both rural and urban areas that had access to internet services and held the view that the services were affordable accounting for 77.1 percent and 71.3 percent respectively.

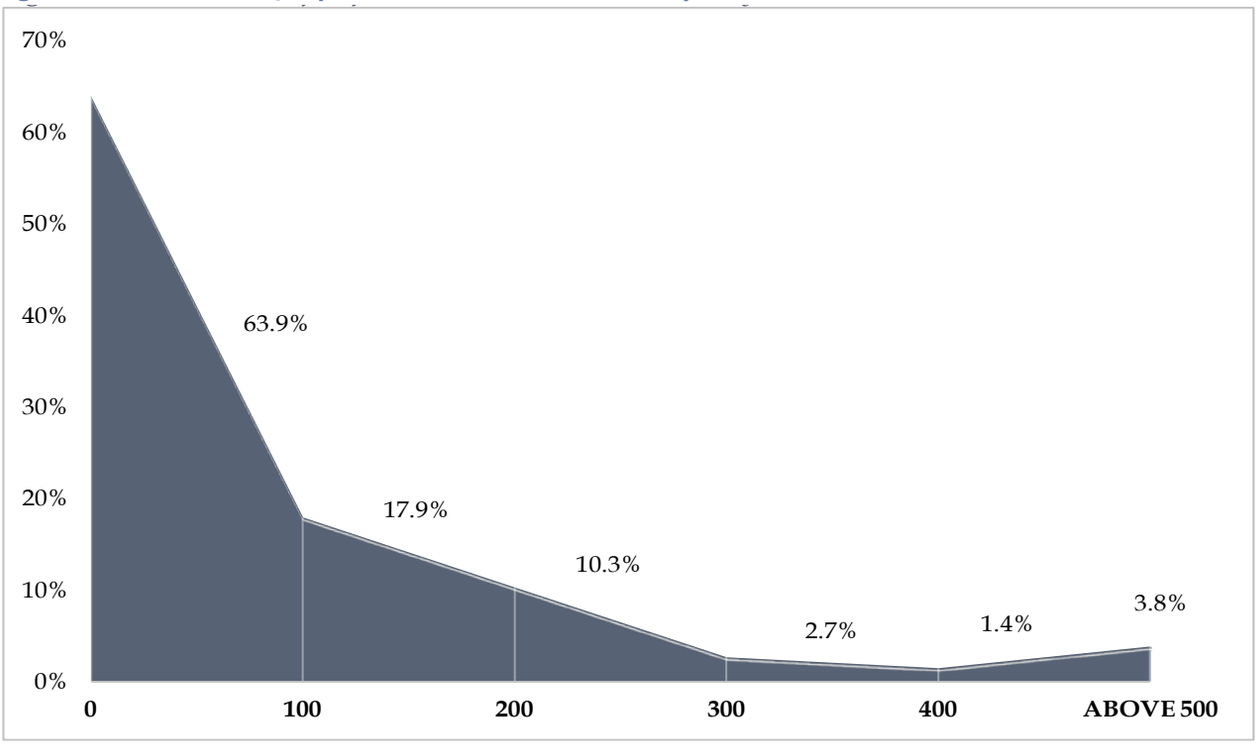
Figure 47: Perceptions on affordability of internet services by households; 2018



3.1.9.2.Expenditure on Internet Services

The majority of households that access internet services indicated that they spend less than ZMW 100.00 per month on internet services. The proportion of households declines with increased expenditure on internet service. Less than 5 percent of the total number of households that indicated that they have access to internet services reported that they spend more than ZMW500.00 per month on internet services.

Figure 48: Distribution of expenditure on internet services by households 'zmw'; 2018



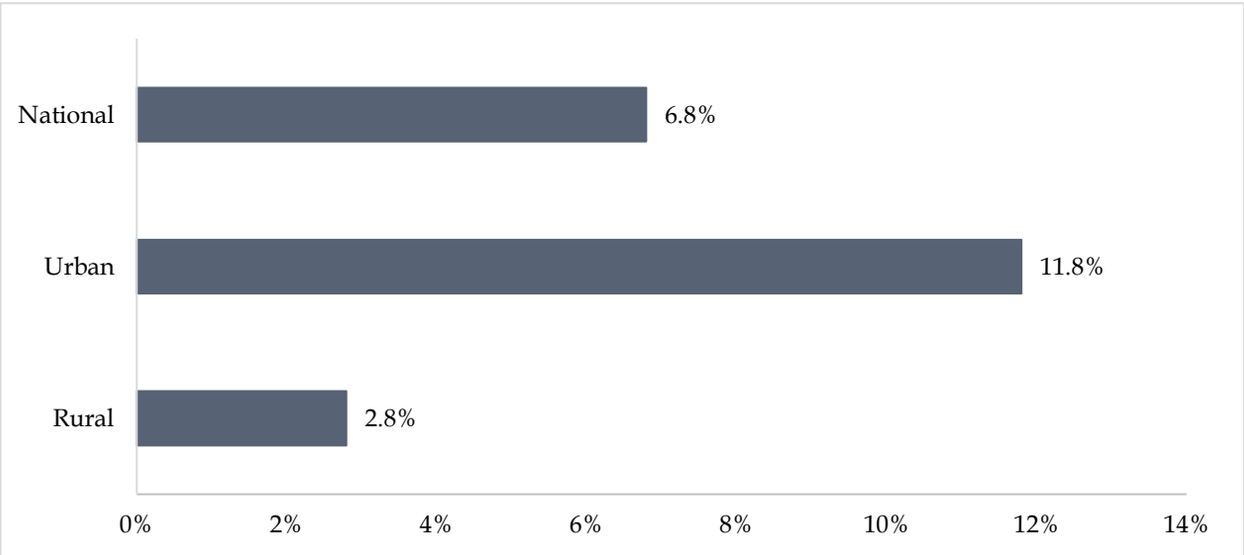
3.2. Access and Usage of ICTs by Individuals

3.2.1. ICT Skills among Individuals

3.2.1.1. Knowledge on how to Use a Computer

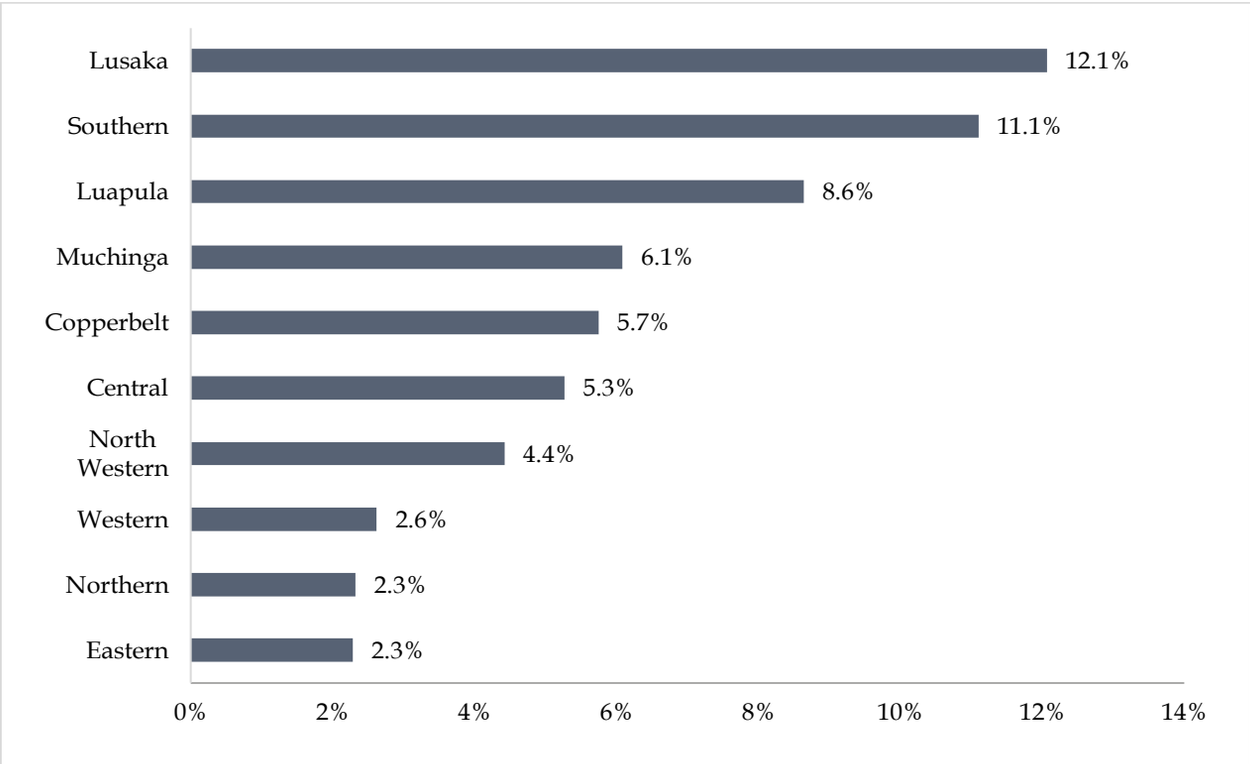
The survey established that only 6.8 percent of individuals across the country aged 10 years and above knew how to use a computer. The proportion of individuals that knew how to use a computer was relatively lower in rural areas compared to urban areas. Specifically, only 2.8 percent of individuals based in rural areas indicated that they knew how to use a computer while 11.8 percent of individuals based in urban areas indicated that they knew how to use a computer.

Figure 49: Knowledge on usage of computers within regions; 2018



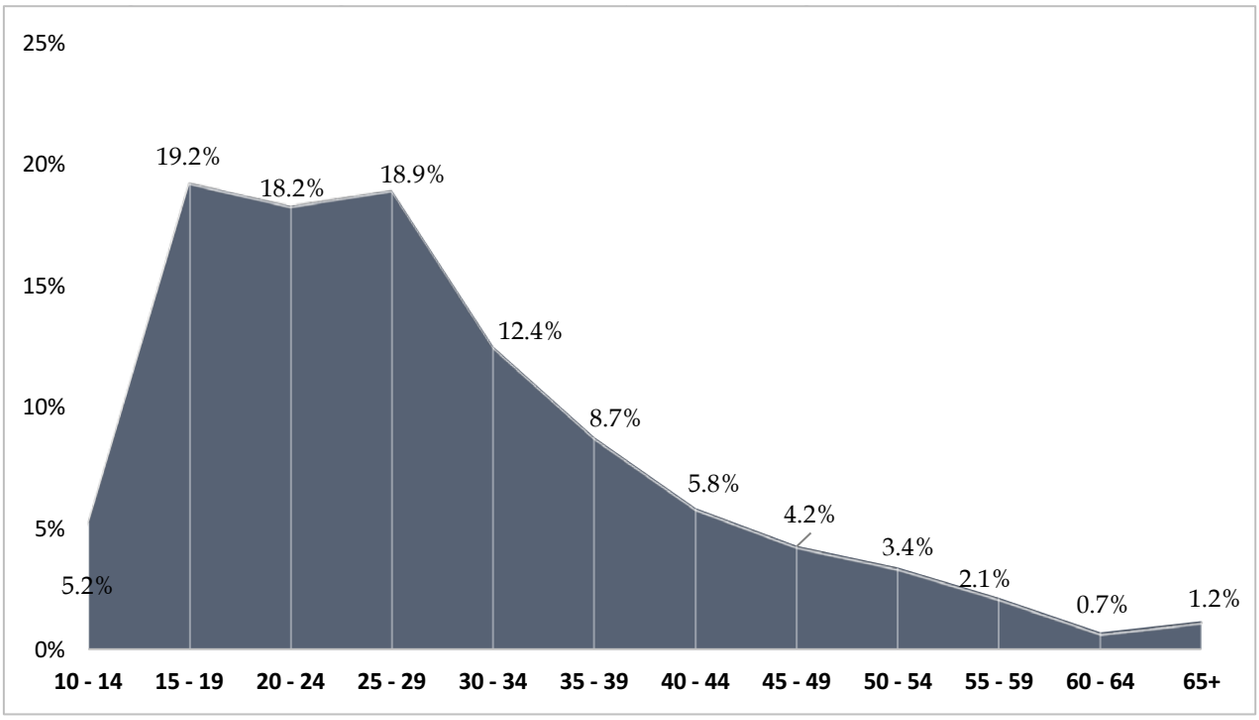
lusaka province and Southern province had the highest concentration of individuals that indicated that they knew how to use a computer accounting for 12.1 percent and 11.1 percent respectively. The smallest concentration of individuals that indicated that they knew how to use computers were eastern province and Northern Province constituting 2.3 percent each.

Figure 50: Knowledge on how to use a computer by province; 2018



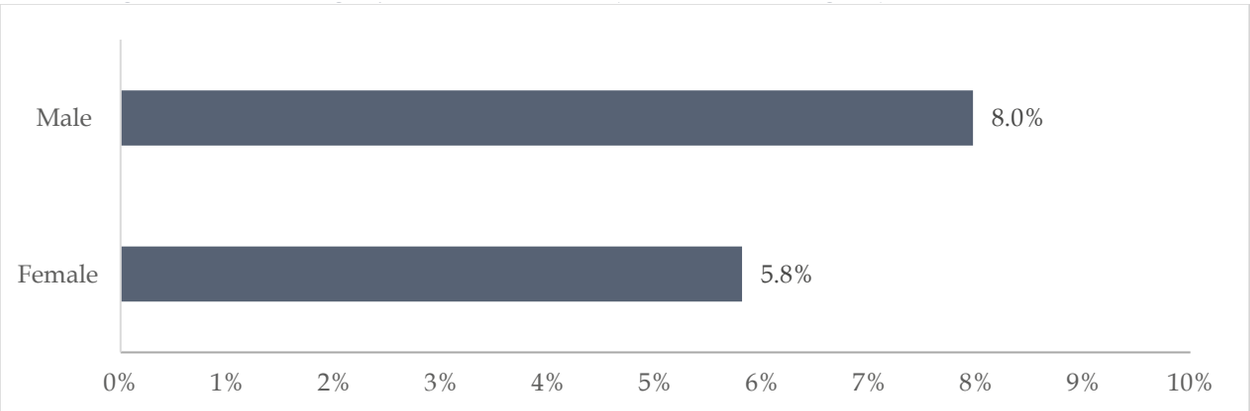
About 74 percent of the individuals that indicated that they knew how to use a computer were aged below 35 years. On the other hand, less than 5 percent of the individuals that indicated that they knew how to use a computer were aged above 55 years.

Figure 51: Knowledge on how to use a computer across age groups; 2018



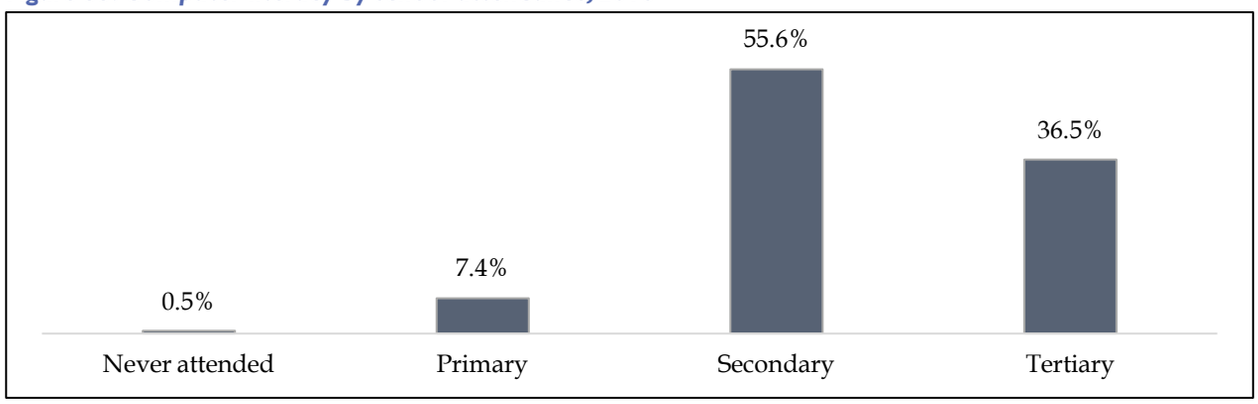
it was noted that there was a relatively larger proportion of males that that indicate that they knew how to use a computer compared to the proportion of females that reported knowledge of how to use a computer. Specifically, 8.0 percent of all the males indicated that they knew how to use a computer while 5.8 percent of females indicated that they knew how to use a computer.

Figure 52: Knowledge of how to use a computer within sex groups; 2018



The majority of the indiviudals that indicated that they knew how to use a computer had attained some level of secondary eduction and tertitiary education accounting for 55.6 percent and 36.5 percent respectively. Less than 1 percent of the individuals that indicated that they knew how to use a computer had never attended school.

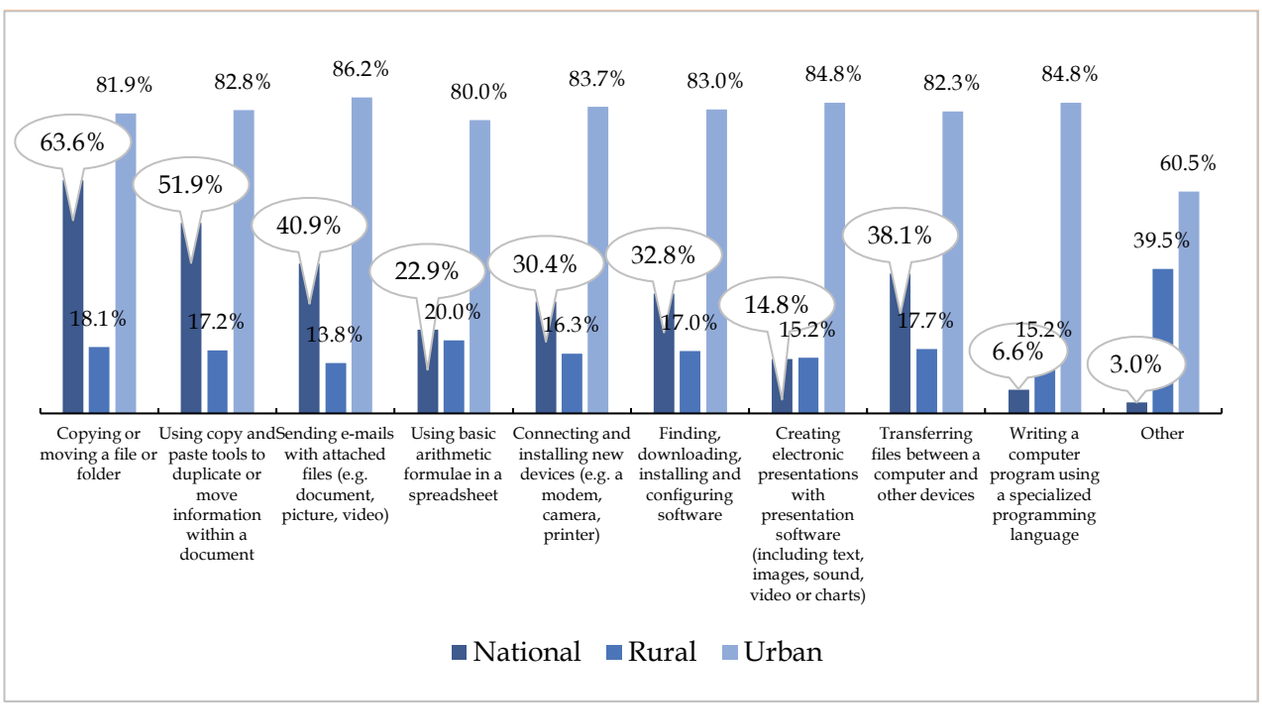
Figure 53: Computer literacy by school attendance; 2018



3.2.1.2. Proficiency in Using a Computer

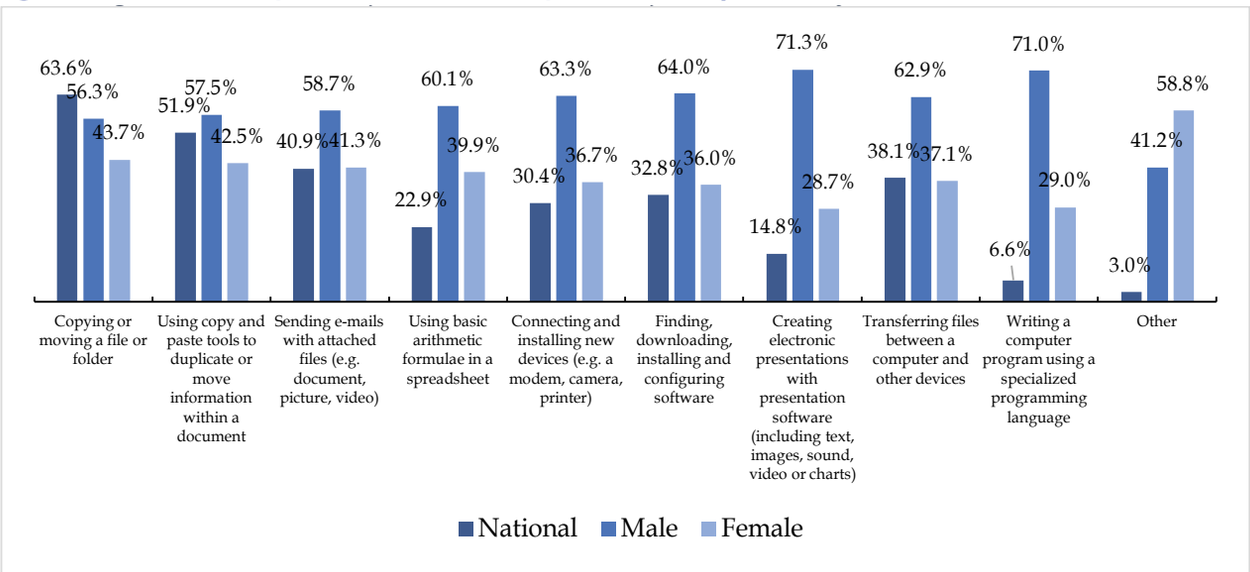
The most prominent skills reported among individuals were related to copying or moving a file or folder and using copy and paste tools to replicate information in a document accounting for 63.6 percent and 51.9 percent of individuals that know how to use a computer. There was a noted imbalance in the proportion of individuals with identified skills that are based in the rural area and urban areas. Specifically, fewer individuals that had identified skills using a computer were based in rural areas compared to urban areas.

Figure 54: Proficiency in using a computer across regions; 2018



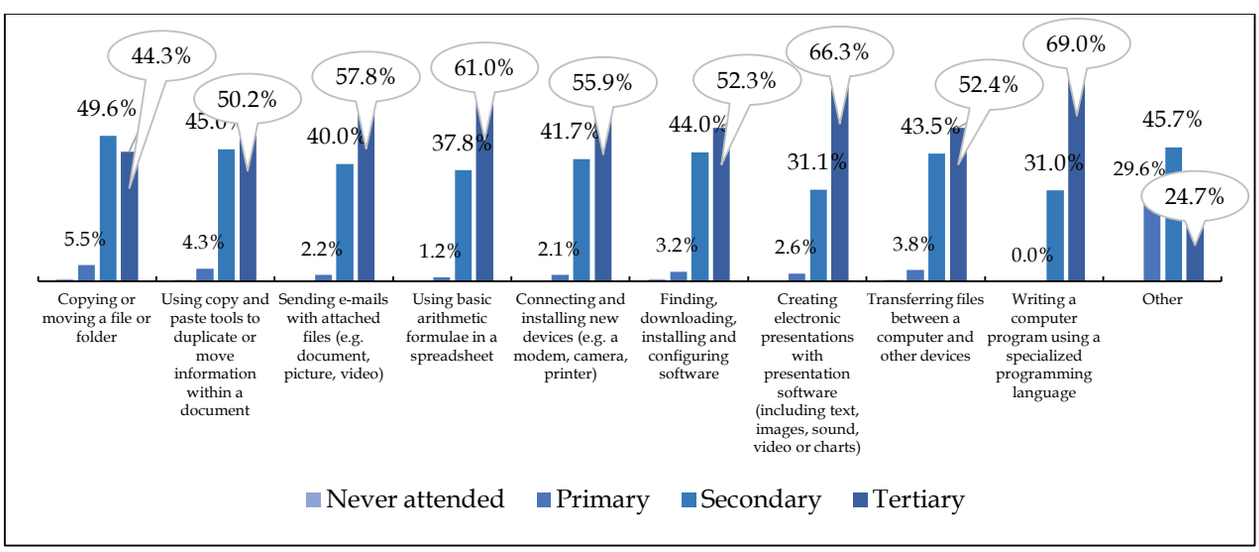
However, the majority of individuals across the country had basic computer skills and mainly undertook basic activities on the computer. The proportion of individuals across the country with relatively more advanced ICT skills was low. The distribution of individuals according to their sex based on the type of ICT skills revealed that the majority of individuals with the identified skills were mainly male. For instance, 56.3 percent of the individuals that indicated that they knew how to use a computer and were able to copy or move a file or folder were male while only 43.7 percent were female. Similarly, 63.3 percent of the people that knew how to connect and install new devices such as modems or cameras were male while only 36.7 percent were female.

Figure 55: Distribution of individuals with Identified ICT skills by Sex; 2018



It was observed that individuals with higher levels of education attainment had higher proficiency in ICT skills. For instance, 69.0 percent of individuals who could write a computer program using a specialized programming language had tertiary education. It was also established that individuals that had attained tertiary level education constituted the largest proportion across most of the activities. Particularly, these proportions increased with the complexity of skills.

Figure 56: ICT skills by level of education



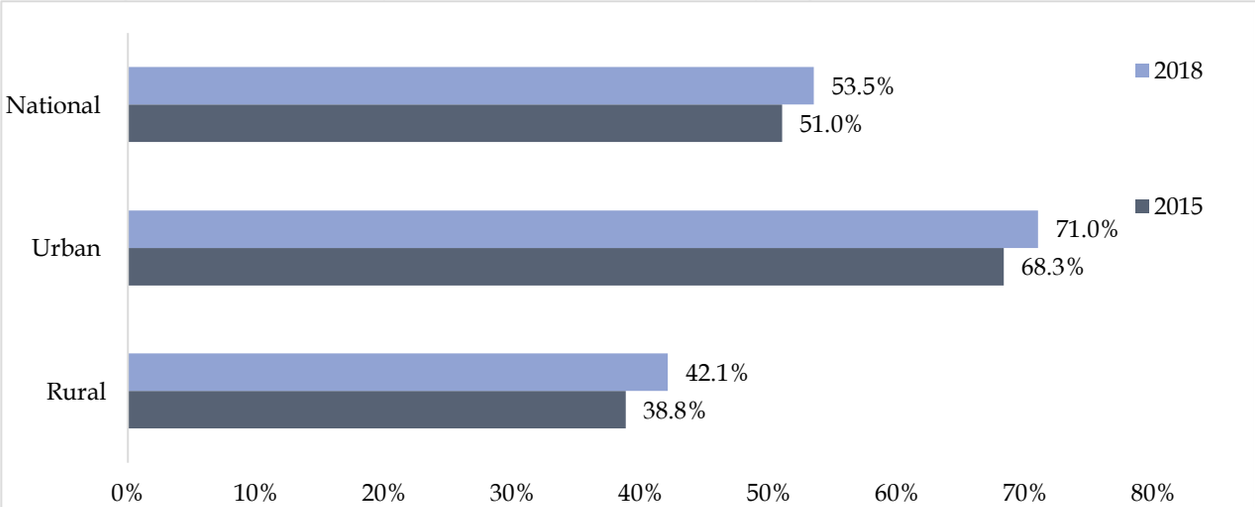
3.2.2. Usage of Mobile Phones

3.2.2.1. Active Users of Mobile Cellular Telephones

It was estimated that 53.5 percent of all the individuals aged 10 years and above across the country were active users of mobile cellular telephones established by estimating the proportion of individuals aged 10 years and above that had used a mobile cellular telephone in the last three months prior to the survey[15]. The proportion of active users of mobile cellular telephones was relatively higher in urban areas compared to rural areas. Specifically, 71.0 percent of all the individuals aged 10 years and above based in urban areas were noted to be active users of mobile cellular telephones while only 42.1 percent of all the individuals based in rural areas were considered active users of mobile cellular telephones. There was a noted improvement in the proportion of individuals aged 10 years and above that were active users of mobile cellular telephones across all regions.

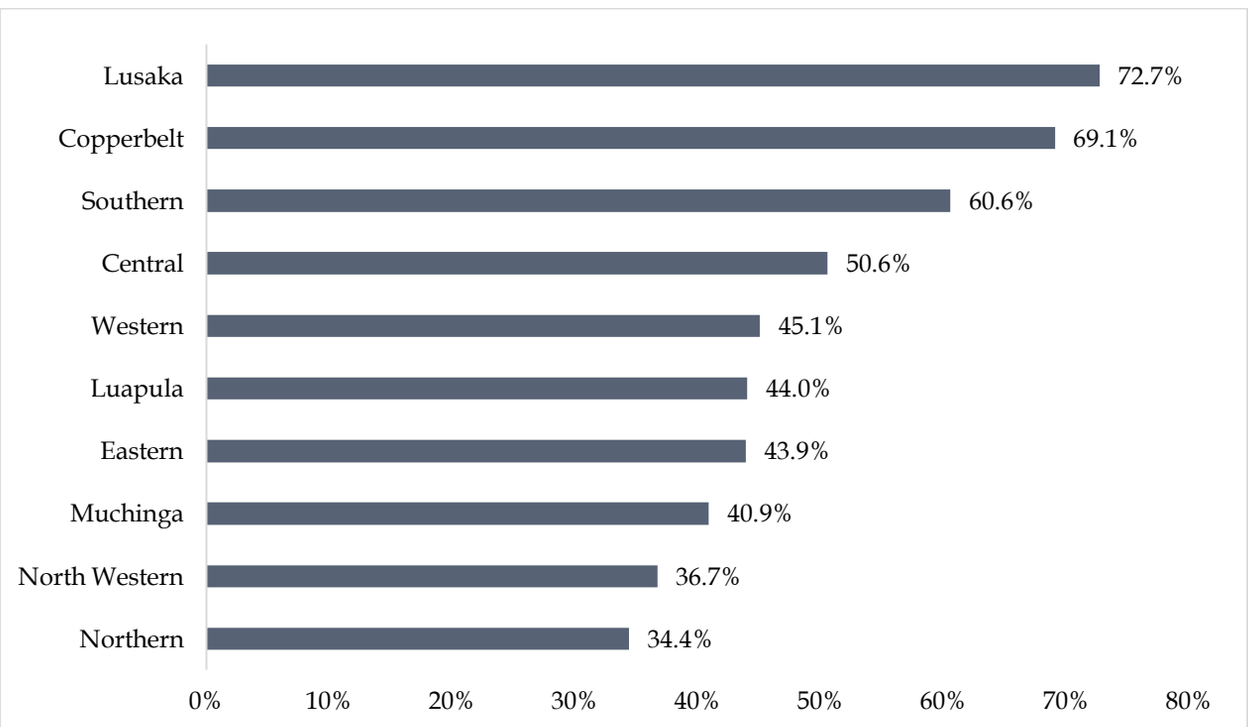
[15] They used the device at least once to make call or to SMS or to access data services in a three month period.

Figure 57: Active users of mobile cellular telephones by region; 2018



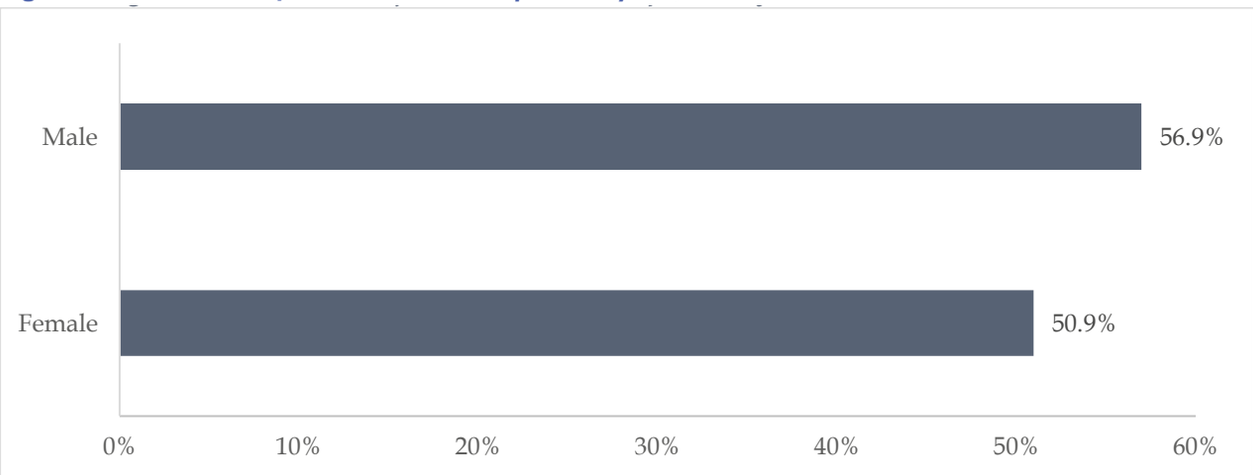
Lusaka Province, Copperbelt Province and Southern Province had the highest concentration of active users of mobile cellular telephone services accounting for 72.7 percent, 69.1 percent and 60.6 percent of all the individuals in the provinces respectively. Northern Province, North-Western Province and Southern Province had the lowest concentration of active users of mobile cellular telephone services accounting for 34.4 percent, 36.7 percent and 40.9 percent of all the individuals in the respective provinces.

Figure 58: Active users of mobile cellular telephones by province; 2018



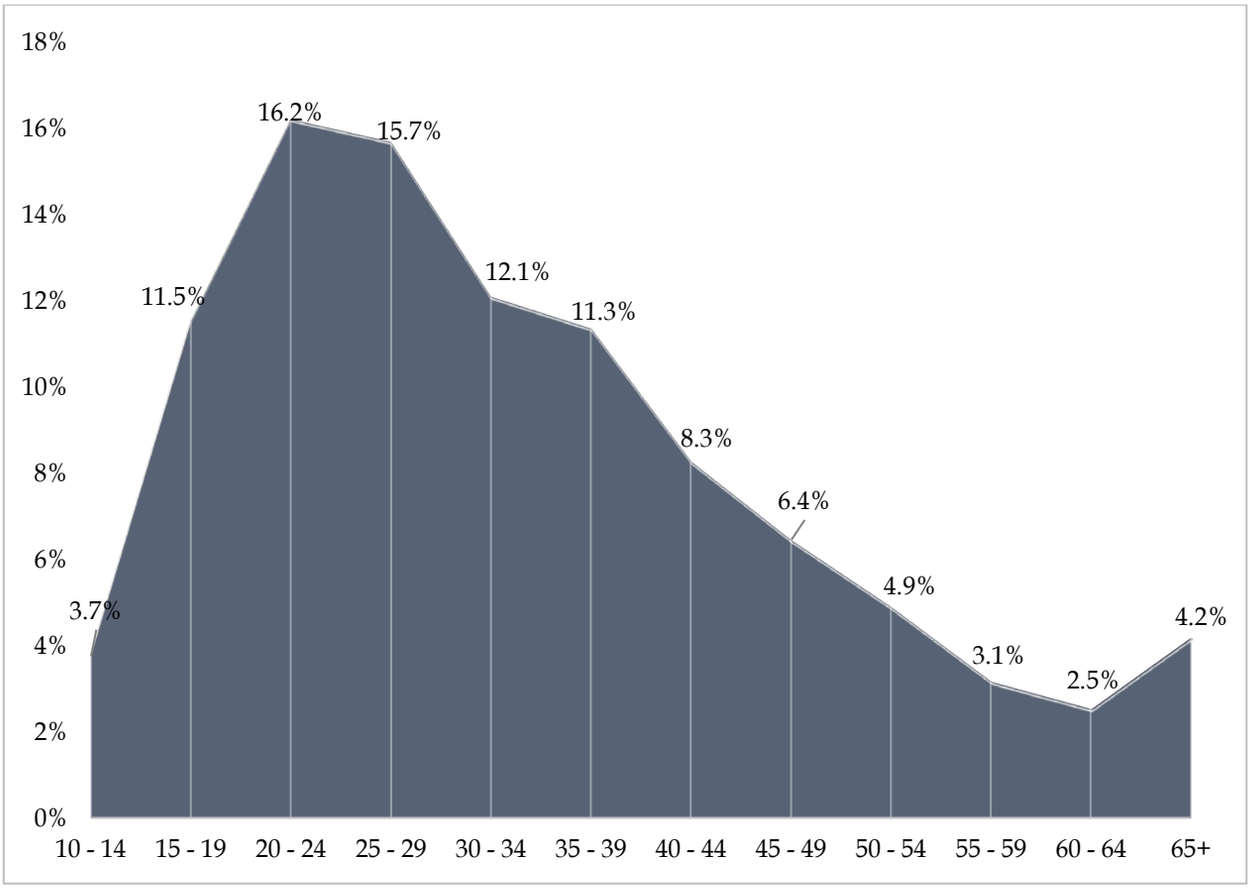
There was a relatively higher proportion of males that were active users of mobile cellular telephones compared to females across the country. Specifically, 56.9 percent of all the males across the country indicated that they had used a mobile cellular telephone in the last three months prior to the survey while only 50.9 percent of all the in females indicated that they were active users of mobile cellular telephones.

Figure 58: Active users of mobile cellular telephones by sex; 2018



The survey established that 59.2 percent of all the active users of mobile cellular telephone services were aged below the age of 35 years. Less than 10 percent of all the active users of the services were aged above 55 years.

Figure 59: Distribution of active users of mobile telephone services by age groups; 2018



3.2.3. Ownership of Mobile Cellular Telephones

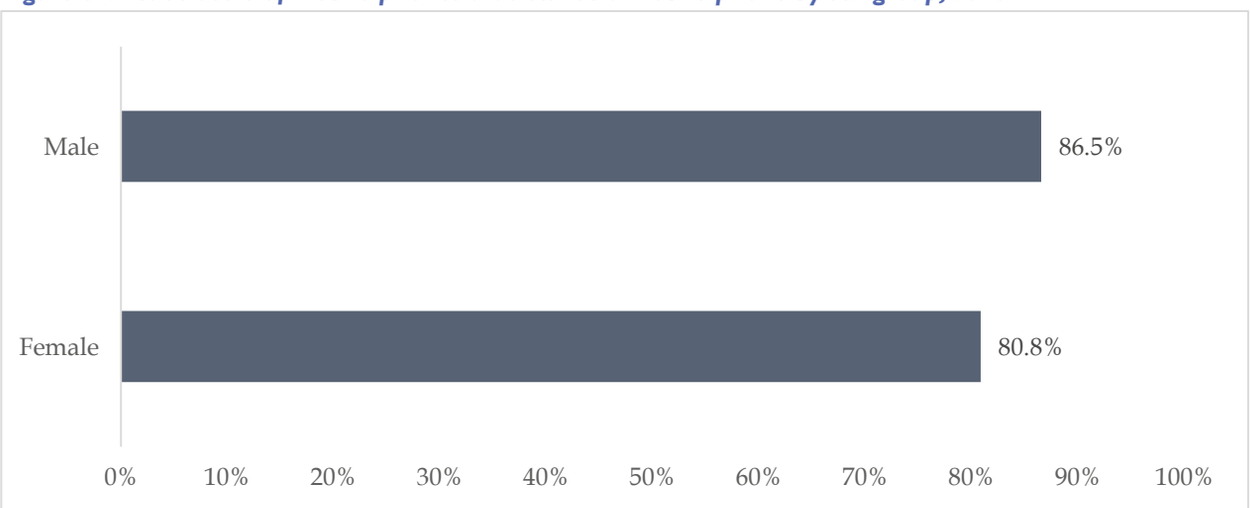
A sizeable proportion of individuals aged 10 years and above that were active users of mobile telephone services, constituting 83.4 percent, owned mobile devices that were subscribed to at least one local network. While the proportions were relatively high across regions, there were more active users in urban areas constituting 88.0 percent compared to rural areas where the proportion was 78.3 percent.

Figure 60: Ownership of mobile cellular telephones among active users; 2018

Indicator	2015	2018
Ownership Of Mobile Phones Among Active Users	83.8%	83.4
Ownership Of Mobile Phones Among Active Users In Urban Areas	89.2%	88.0
Ownership Of Mobile Phones Among Active Users In Rural Areas	77.0%	78.3

There were very minimal differences in the proportion of active users of mobile telephones that owned a mobile phone and were male and those that were female. Both sex groups had a concentration of active users of mobile cellular telephones that owned mobile phones that were subscribed to a local network that was above 80 percent.

Figure 61: Active users of mobile phones that owned a mobile phone by sex group; 2018

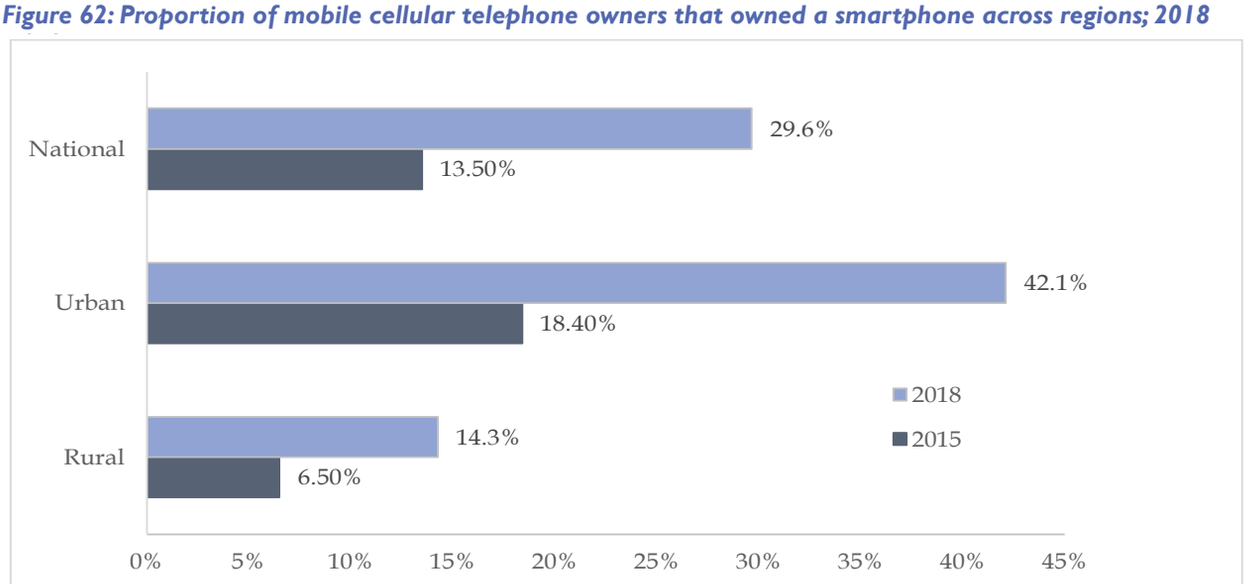


3.2.4. Ownership of Smartphones

3.2.4.1. Ownership of Smartphones across Regions

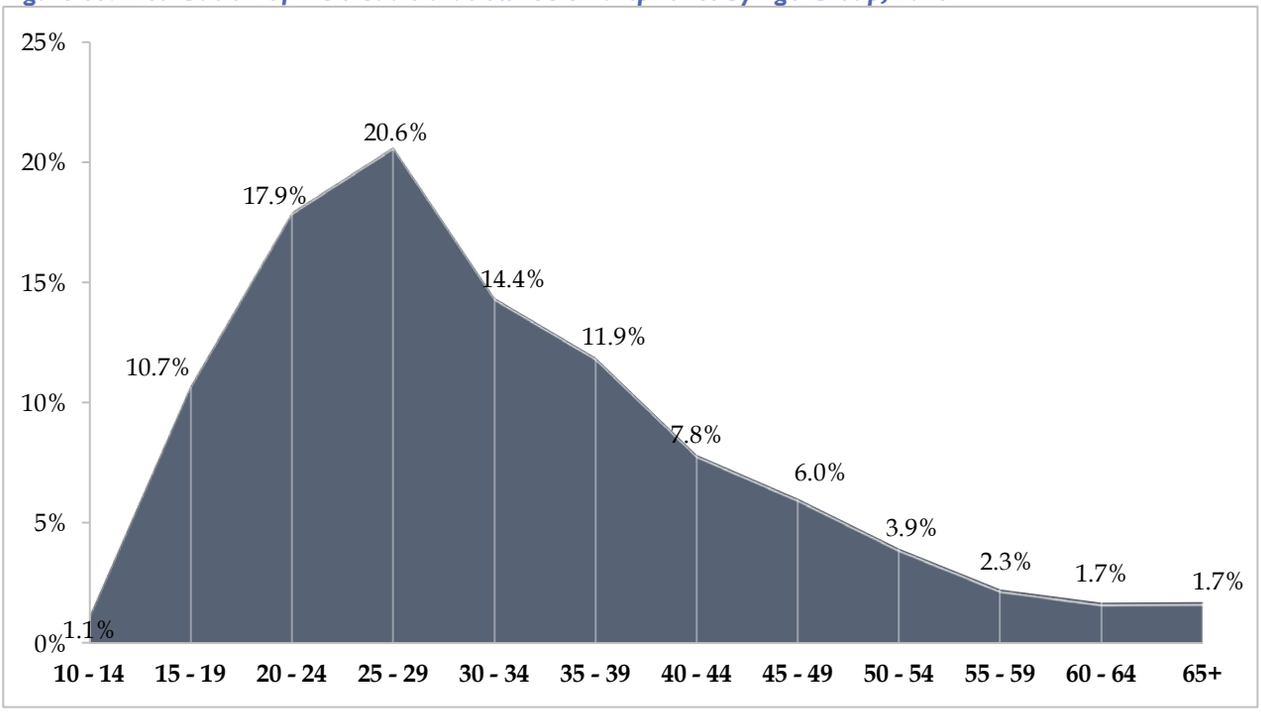
The proportion of individuals aged 10 years and above that owned a smartphone as a share of all the individuals aged 10 years and above that had owned a mobile cellular telephone subscribed to a local network increaded from 13.5 percent in 2015 to 29.6 percent in 2018. The largest growth rate was obsreved in the urban areas as the proportion increased from 18.4 percent to 42.1 percent while an improvement from 6.5 percent to 14.3 percent was observed in the rural areas.

Figure 62: Proportion of mobile cellular telephone owners that owned a smartphone across regions; 2018



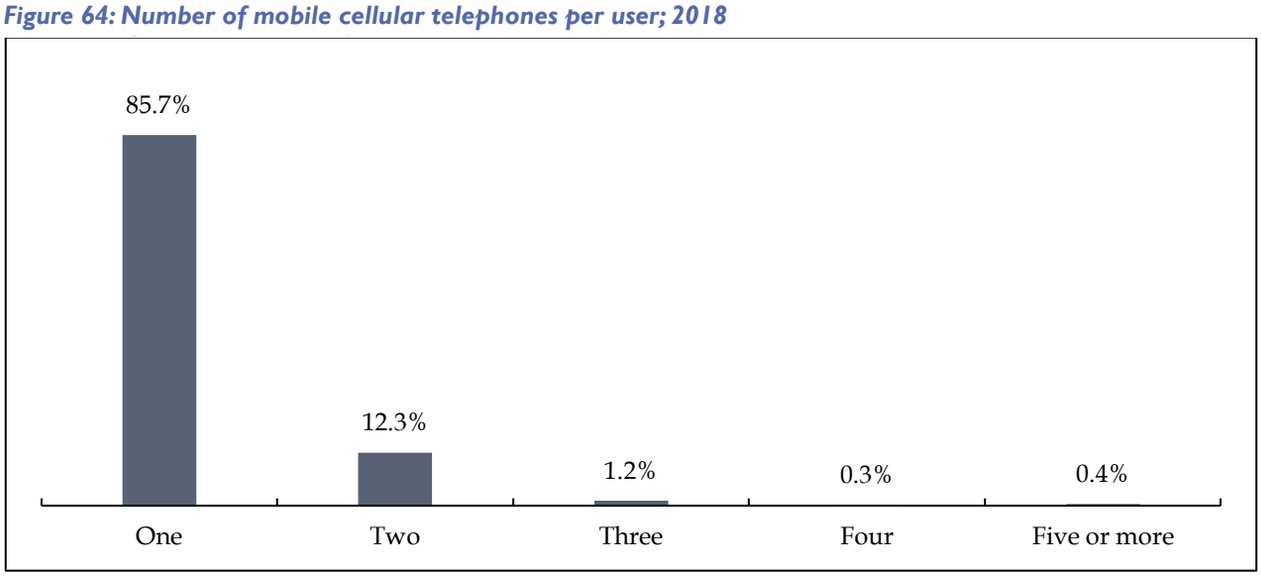
The survey established that 76.6 percent of all the individuals aged 10 years and above that owned smartphones were below the age of 35 years. Less than 10 percent of the individuals aged 10 years and above that owned smartphones were above 50 years old. On the other hand 29.6 percent of the individuals aged 10 years and above that owned smartphones were below the age of 24 years.

Figure 63: Distribution of Individuals that owned Smartphones by Age Group; 2018



An investigation into the number of mobile cellular telephones owned by individuals aged 10 years and above revealed that 85.7 percent have one mobile cellular telephone while 14.3 percent have at least two mobile cellular telephones with an active SIM card.

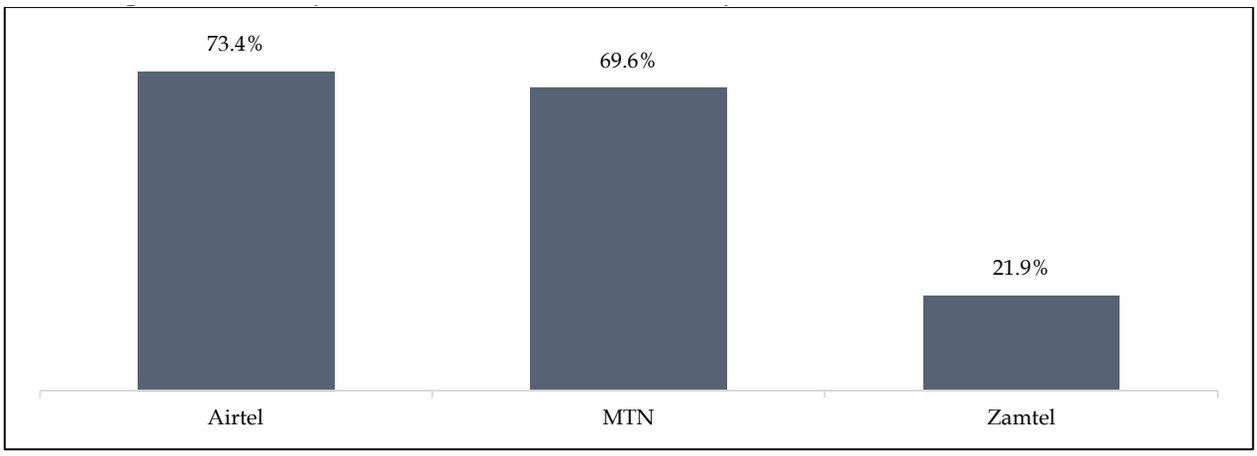
Figure 64: Number of mobile cellular telephones per user; 2018



3.2.5. Network Subscription and Subscriber Preferences

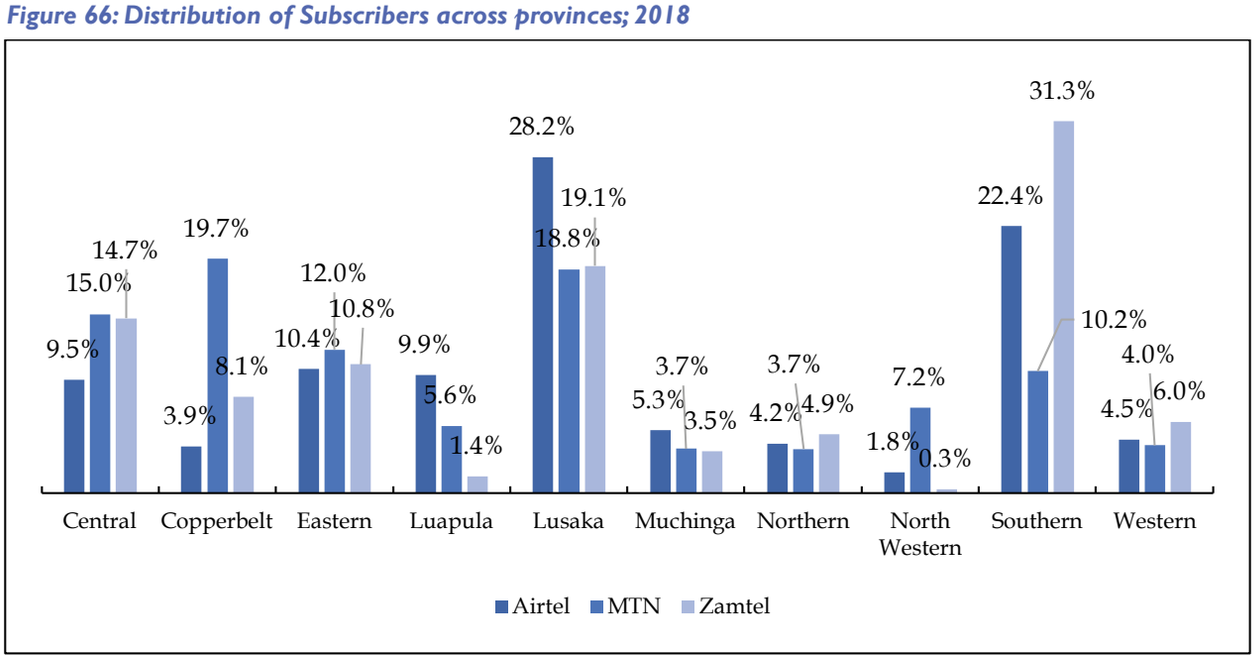
The survey established that Airtel network and MTN Network had the largest proportion of individuals subscribed to the network. Specifically, the proportion of individuals aged 10 years and above that indicated that they were subscribed to the Airtel network and MTN networks accounted for 73.4 percent and 69.6 percent respectively. Only 21.9 percent of the individuals aged 10 years and above that indicated that they were subscribed to a local mobile network indicated that they were subscribed to the Zamtel network.

Figure 65: Subscription to Local Mobile Network Operators; 2018



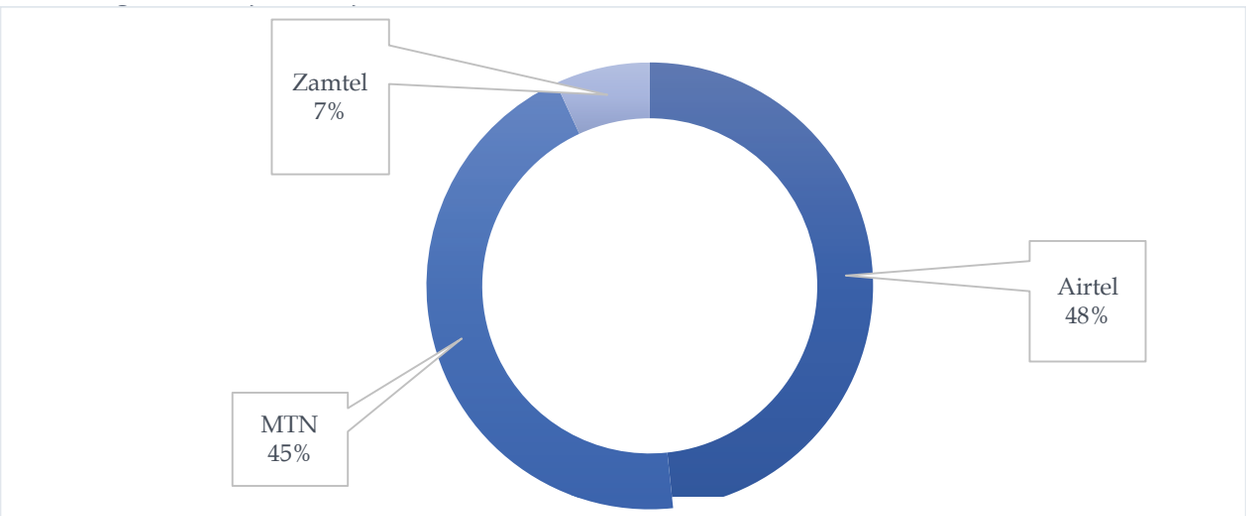
The distribution of subscribers across provinces revealed that subscription for Zamtel was largest in Southern Province while Airtel had its largest subscribers in Lusaka Province and MTN on the Copperbelt Province.

Figure 66: Distribution of Subscribers across provinces; 2018



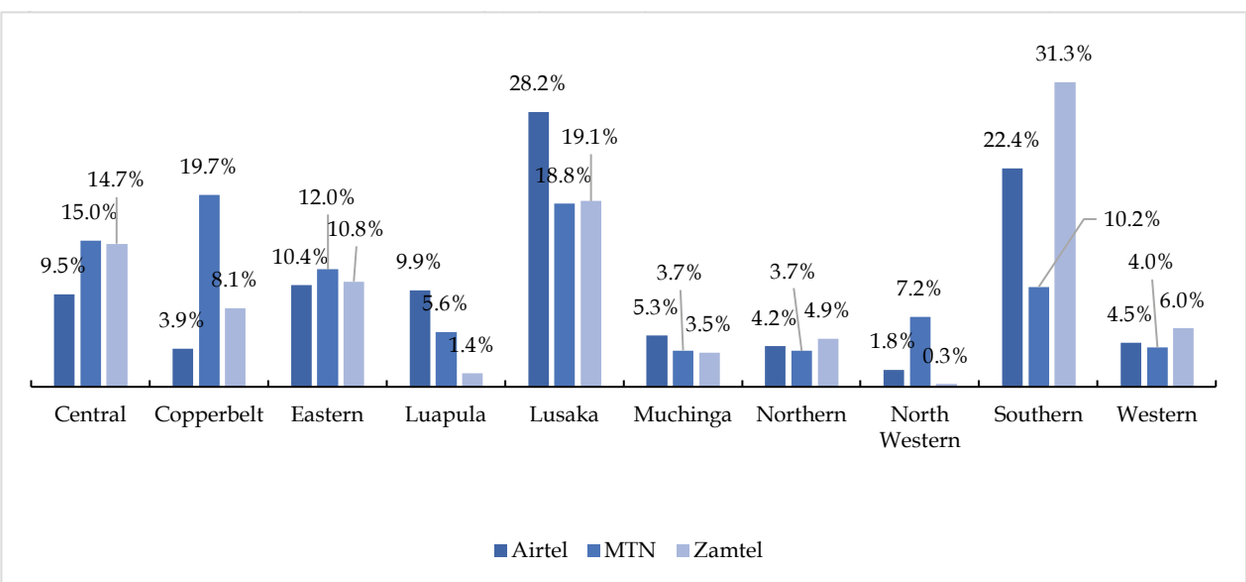
The Airtel network was reported as the most preferred mobile cellular network followed by MTN. Specifically, 48.3 percent of the individuals aged 10 years and above that indicated that they had used a mobile phone subscribed to a local network in the last three months prior to the survey indicated that Airtel was their most preferred network while 44.8 percent cited MTN network. Only 6.9 percent of the individuals that indicated that they had used a mobile cellular phone subscribed to a local network in the last three months prior to the survey indicated that Zamtel was their preferred network.

Figure 67: Preference of mobile cellular network; 2018



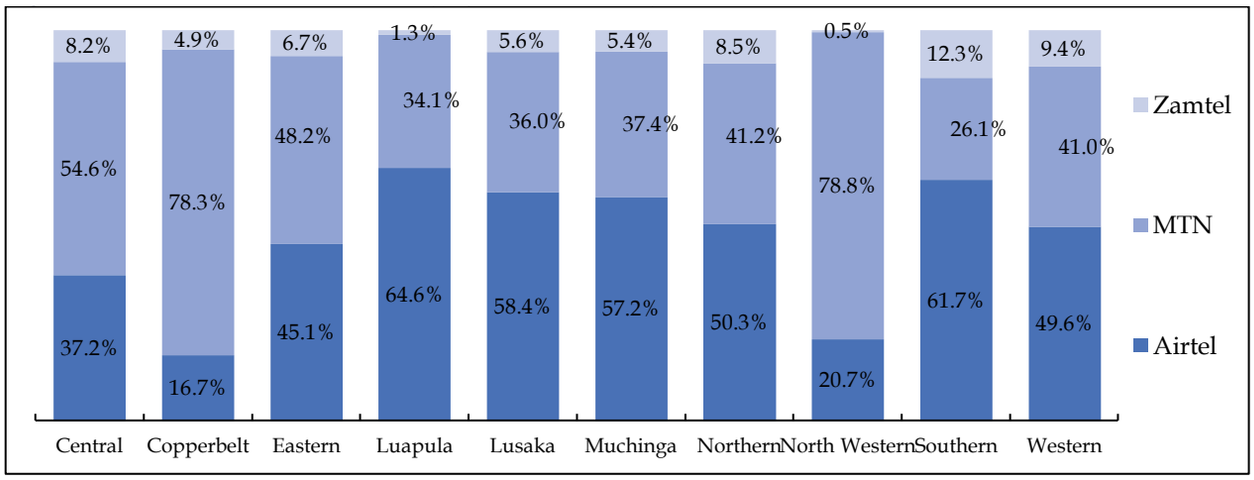
notwithstanding, it was also noted that the majority of individuals aged 10 years and above that preferred the MTN network were based on the Copperbelt Province and Lusaka Province while the majority of individuals aged 10 years and above that preferred the Airtel network were based in Southern Province and Lusaka Province. Similarly, the majority of individuals aged 10 years and above that preferred the Zamtel network were largely in Southern Province and Lusaka Province.

Figure 68: Distribution of individuals by preference of mobile cellular network across provinces; 2018



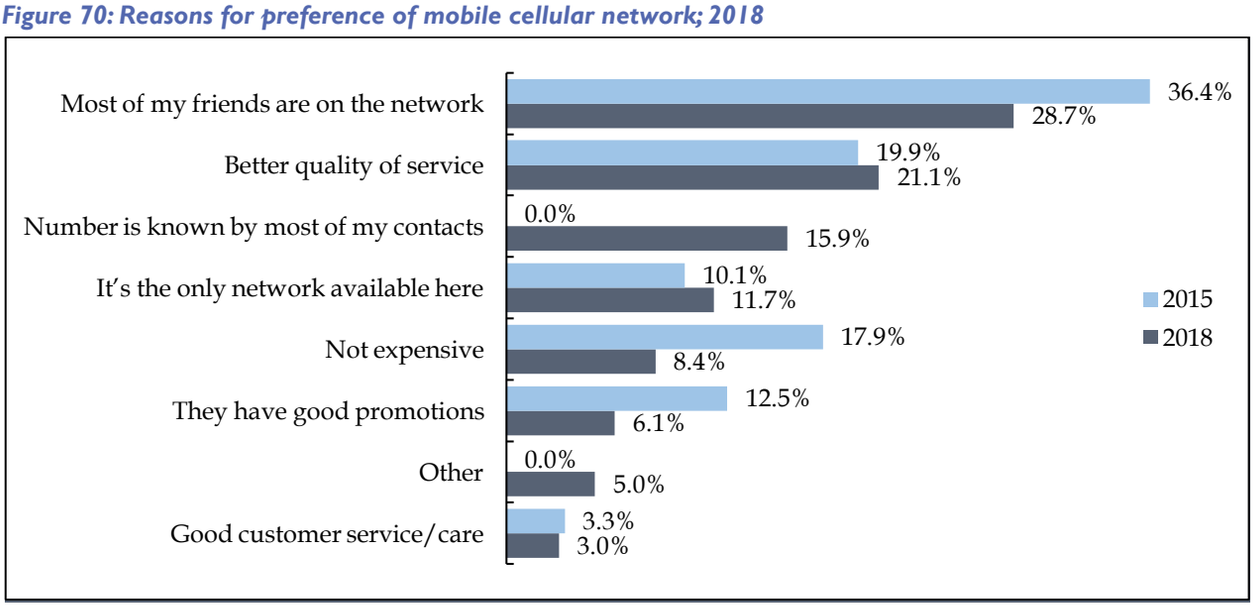
The Airtel network was noted to be the most preferred network in six (6) out of ten (10) Provinces. These constituted Luapula Province, Lusaka Province, Muchinga Province, Northern Province, Southern Province and Western Province. On the other hand, the MTN network was also noted to be the most preferred network in four (4) out of the ten (10) provinces constituting North-Western Province, Copperbelt Province, Central Province and Eastern Province.

Figure 69: Mobile cellular network preference within provinces; 2018



The main reasons cited for preference of mobile cellular networks by individuals aged 10 years and above continued to be associated with the need to avoid cross network calls by being on same network with friends and family. Further, the good quality of service was an influencing factor. These reasons were highlighted by 36.4 percent and 19.9 percent of all the individuals aged 10 years and above that indicated that they were subscribed to a local network. Other prominent attributes included the need for better quality of service and availability of the network in an area.

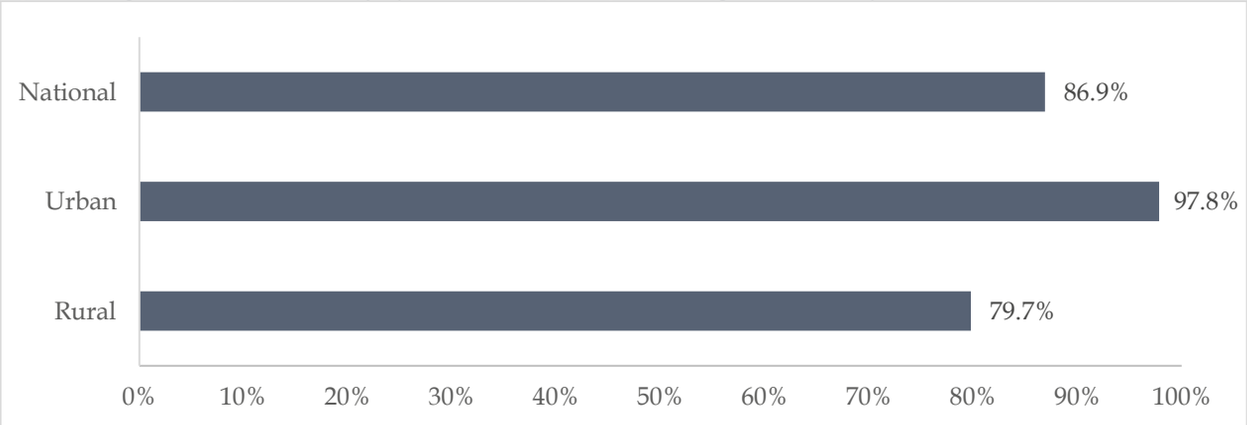
Figure 70: Reasons for preference of mobile cellular network; 2018



3.2.6. Coverage of the population by Mobile Cellular Network

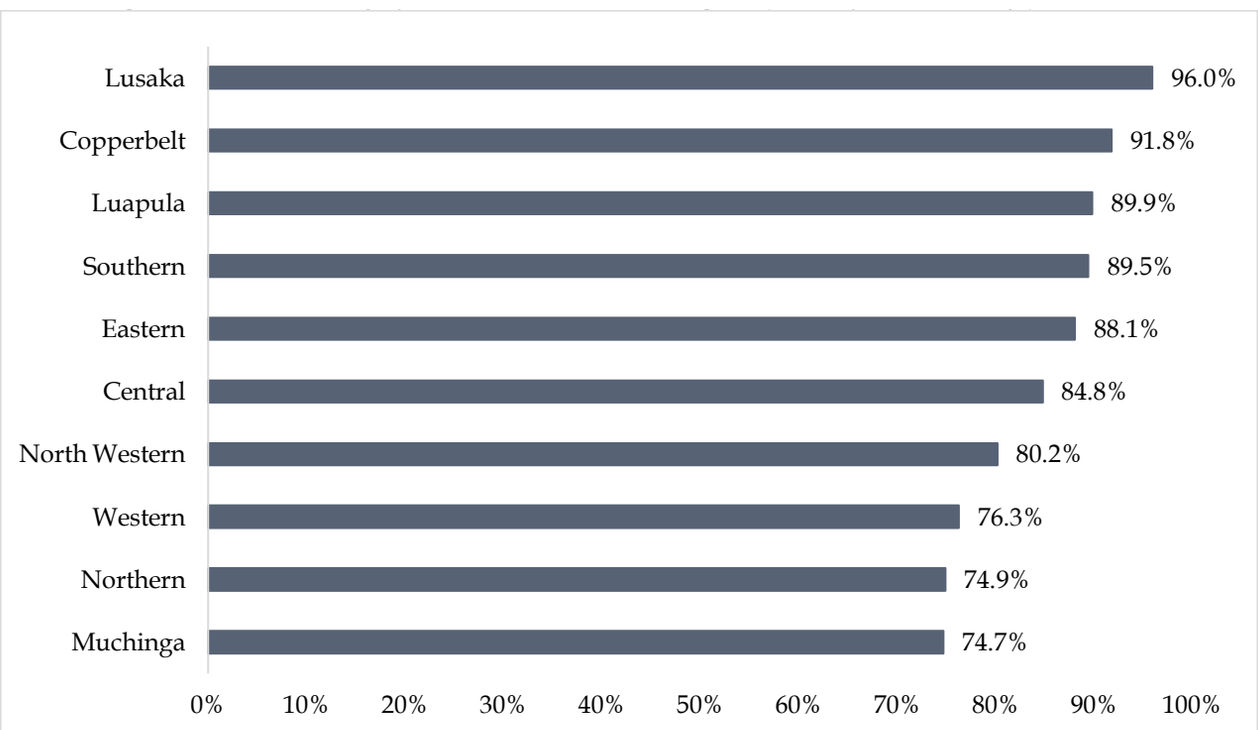
The mobile cellular network coverage of the entire population in the country was estimated to be 86.9 percent. The coverage of the population by a mobile cellular network at the place of residence was higher in urban areas than in rural areas. In urban areas, 97.8 percent of the population indicated that they were covered by a mobile cellular network at their place of residence while in the rural areas only 79.7 percent of the population indicated they had coverage of a mobile cellular network at their place of residence.

Figure 71: Availability of mobile network coverage at place of residence; 2018



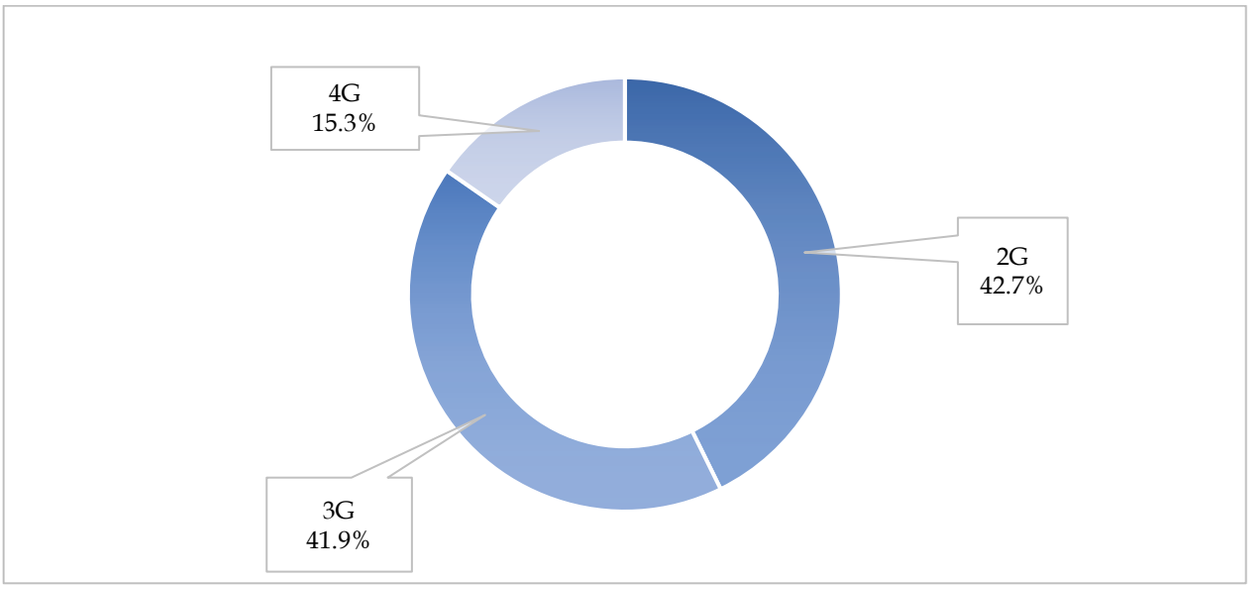
lusaka Province had the highest proportion of individuals aged 10 years and above that indicated that they had coverage by a mobile network accounting for 96 percent of all the individuals aged 10 years and above in the province. On the other hand, Muchinga Province had the smallest proportion of individuals who indicated that there was coverage by a mobile network at their place of residence accounting for 74.7 percent of the people in the province.

Figure 72: Availability of mobile network coverage at place of residence by province; 2018



The distribution of the population by type of mobile cellular network technology that is available at their place of residence revealed that the 2G technology was most widespread accounting for 42.7 percent of population that indicated that they are covered by a mobile cellular network. An equally sizeable proportion of the population indicated that they were covered by 3G technology constituting 41.9 percent of the population. The 4G technology is was established to be the least wide spread accounting for 15.3 percent of the population that indicated that they were covered by a mobile cellular network.

Figure 73: Proportion of Individuals covered by a mobile network by type of technology; 2018



3.2.7. Distance Covered to Access mobile cellular network

The survey established the amount of time needed to travel to a place where there is mobile cellular network coverage by individuals aged 10 years and above who indicated that they lived in areas without mobile cellular network coverage. On average, individuals aged 10 years and above that indicated that they did not have mobile cellular network coverage at their place of residence had to walk for 21 minutes[16] (approximately 1.75 kilometers) to reach an area with mobile cellular network coverage.

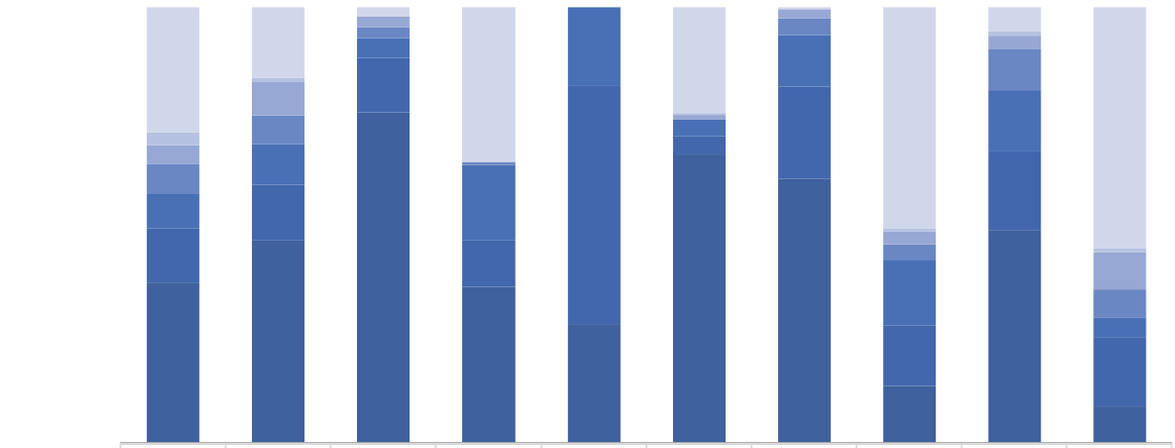
Individuals aged 10 years and above that were based in rural areas and did not have mobile cellular network coverage had to walk relatively longer distances than those that were based in urban areas. Specifically, individuals aged 10 years and above based in rural areas needed on average 22 minutes to reach areas with access to mobile cellular networks compared to 2 minutes taken by individuals aged 10 years and above in urban areas.

There was very minimal variation in the time needed for males that did not have coverage of any mobile cellular network at their place of residence to walk to an area with mobile cellular network coverage compared to females. On average, the males indicated that they needed to walk for 20 minutes to reach areas with access to mobile cellular network coverage while females required at least 21 minutes. However, individuals aged 10 years and above with disabilities indicated that they needed at least 27 minutes on average to walk to an area with mobile cellular network coverage.

An assessment of the time taken to reach an area with mobile cellular network coverage by individuals aged 10 years and above in various provinces revealed that Western, North-Western, Luapula and Central Provinces had relatively high proportions of individuals aged 10 years and above that needed to cover longer distances, typically more than 2.5 kilometers, to reach areas with mobile cellular network coverage. However, most individuals aged 10 years and above in Copperbelt, Eastern, Lusaka, Muchinga, Northern and Southern Provinces needed to walk for less than 10 minutes (approximately 800 meters) to reach areas with access to mobile cellular networks.

[16] It was estimated that it takes 120 minutes to cover 10 Km

Figure 74: Time taken to reach areas with mobile cellular network coverage by province; 2018

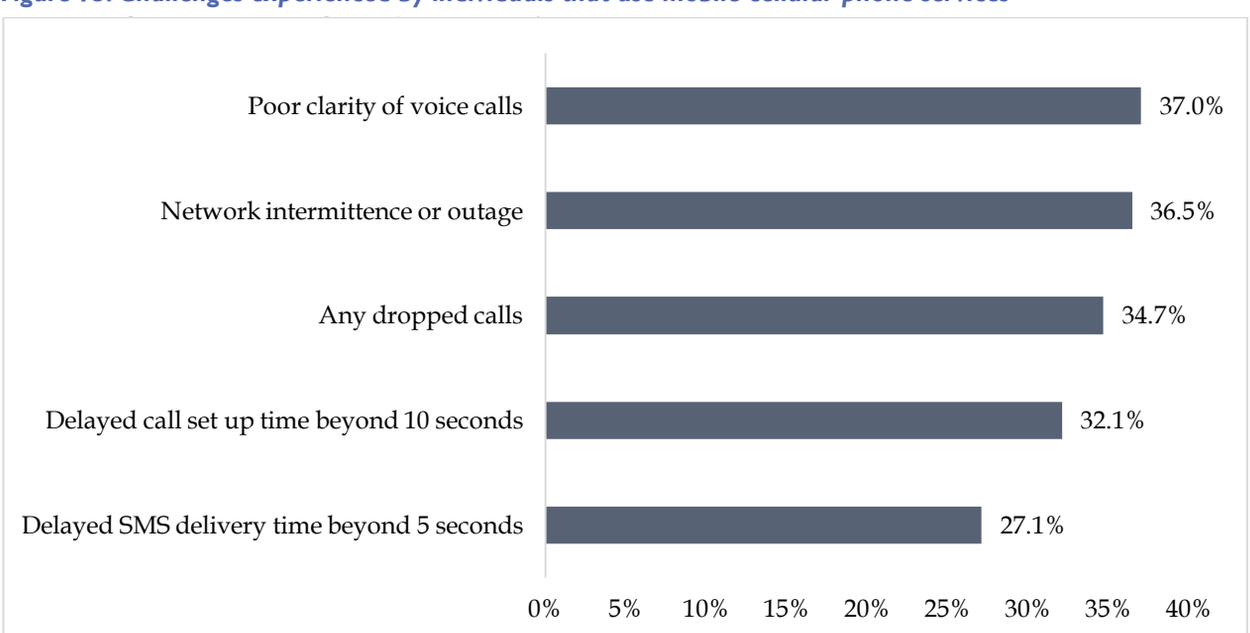


	Central	Copperbelt	Eastern	Luapula	Lusaka	Muchinga	Northern	North Western	Southern	Western
30+ min	28.6%	16.1%	2.1%	35.4%	0.0%	24.2%	0.4%	50.9%	5.5%	55.4%
25 - 29 min	3.1%	1.1%	0.0%	0.0%	0.0%	0.5%	0.0%	0.5%	1.0%	0.8%
20 - 24 min	4.3%	7.6%	2.5%	0.0%	0.0%	0.9%	2.2%	3.0%	3.0%	8.5%
15 - 19 min	7.0%	6.5%	2.5%	0.8%	0.0%	0.0%	3.7%	3.5%	9.5%	6.5%
10 - 14 min	7.7%	9.3%	4.6%	17.3%	17.9%	3.8%	11.9%	15.1%	14.1%	4.5%
5 - 9 min	12.7%	12.8%	12.5%	10.6%	54.7%	4.3%	21.1%	13.9%	18.0%	15.8%
0 - 4 min	36.7%	46.5%	75.9%	35.9%	27.4%	66.3%	60.7%	13.1%	49.0%	8.5%

3.2.8. Quality of Experience for Mobile Cellular Services

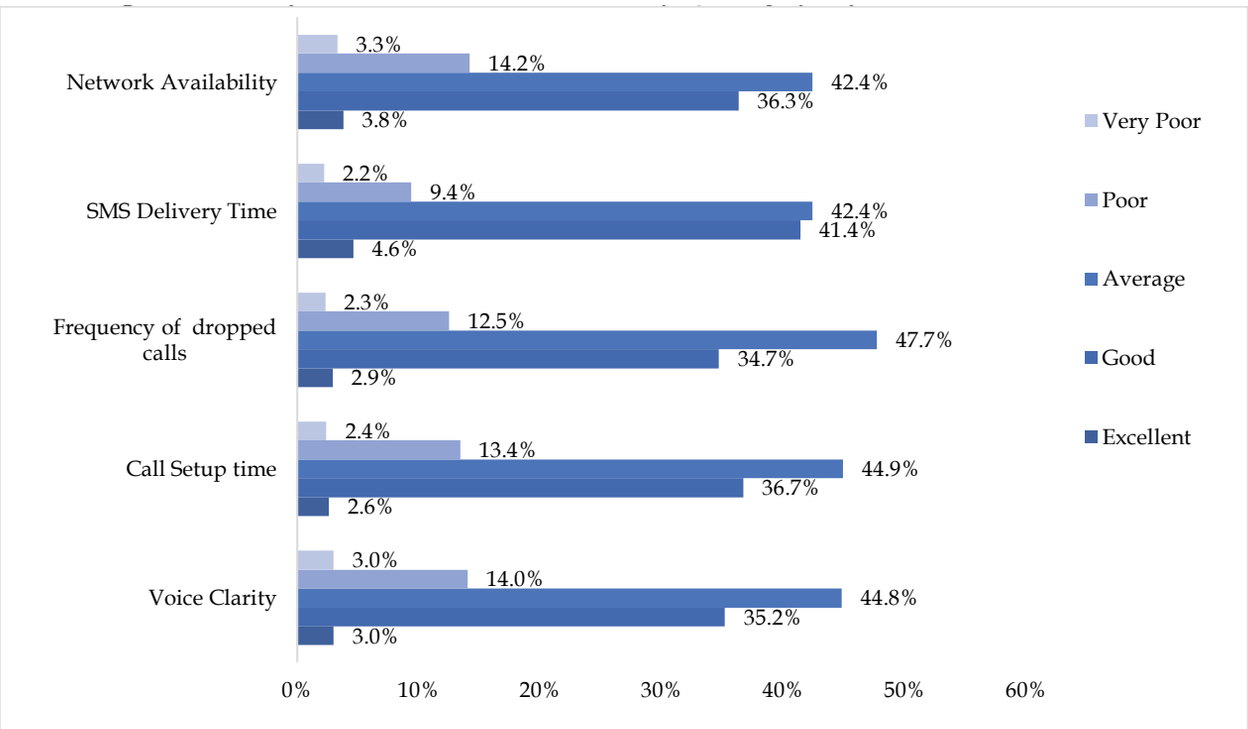
The most prominent complaints cited by individuals aged 10 years and above that indicated that they used mobile cellular telephone services was poor clarity of voice calls as well as intermittent network availability or network outages. Specifically, 37 percent of all the individuals aged 10 years and above that indicated that they had used a mobile cellular telephone in the last three months cited poor clarity of voice calls as one of the challenges they had experienced while 36.5 percent cited intermittent networks or network outages.

Figure 75: Challenges experienced by individuals that use mobile cellular phone services



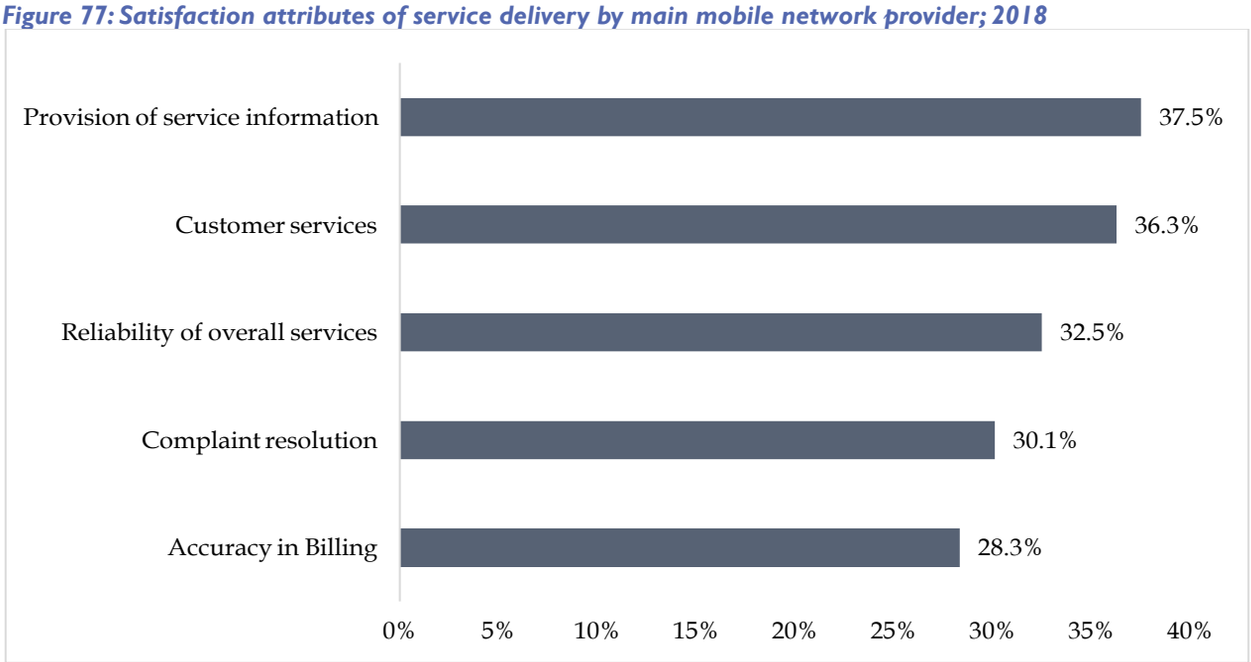
an assessment of various attributes of quality of experience revealed that most individuals aged 10 years and above that used mobile cellular telephone services were of the view that the quality of experience had an average rating. Specifically, at least 40 percent of all the individuals aged 10 years and above that had used mobile cellular telephone services were of the view that the various attributes of quality of service namely network availability, SMS delivery time, frequency of dropped calls, call setup time and clarity of voice calls were average.

Figure 76: Perceptions on various attributes of quality of experience; 2018



The most prominent attribute of service delivery by the main mobile network operator that individuals aged 10 years and above were satisfied with related to the provision of service information and customer services accounting for 37.5 percent and 36.3 percent of all the individuals aged 10 years and above that had used a mobile cellular telephone in the last three months prior to the survey. While there was little variation in the proportion of individuals aged 10 years and above that were satisfied with various attributes of service delivery, accuracy in billing accounted for the smallest proportion amounting 28.3 percent.

Figure 77: Satisfaction attributes of service delivery by main mobile network provider; 2018



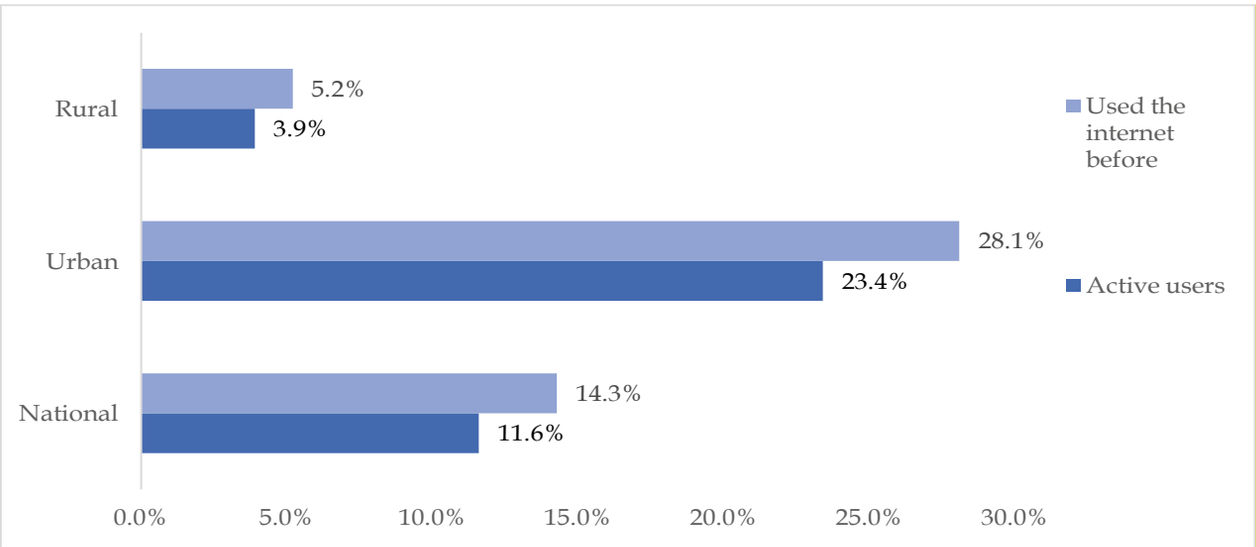
3.3. Access and Usage of Internet Services by Individuals

3.3.1. Internet Usage

The survey established that the proportion of individuals who indicated that they had used the internet before was 14.3 percent in 2018. This finding represents an increase in the proportion of individuals that had used the internet from 8.8 percent reported in 2015. However, the proportion of users of the internet in Zambia who reported using the internet at least once in the 3 months preceding the survey was 11.6 percent.

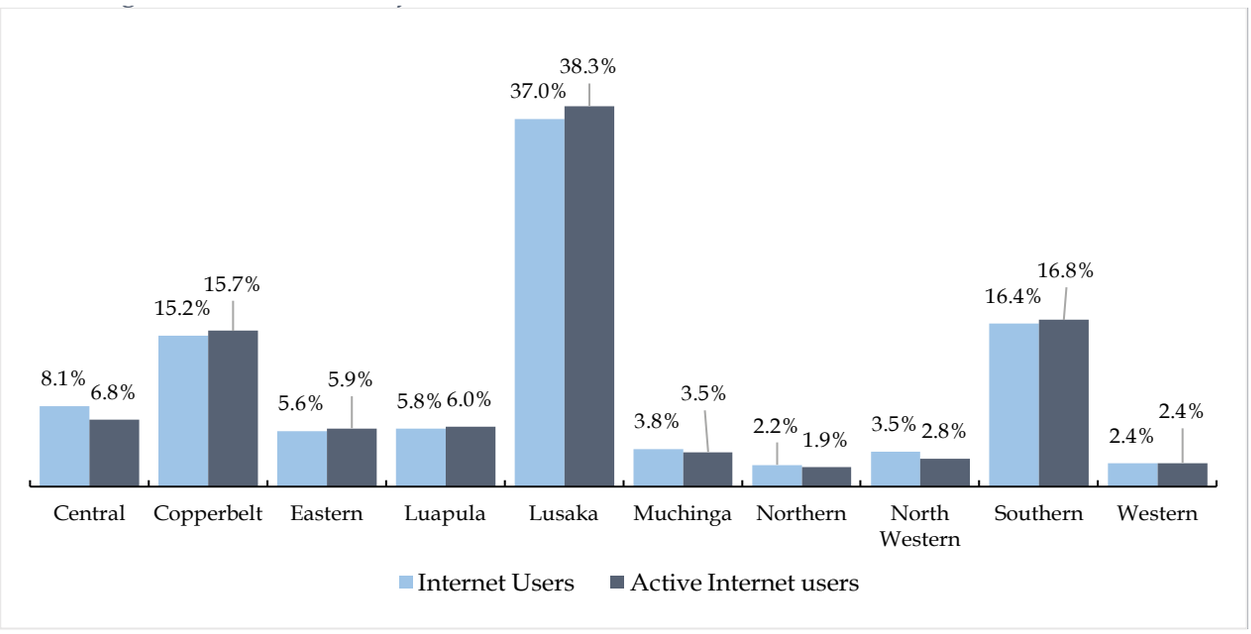
The population of active users of the internet was concentrated in urban areas constituting 77.8 percent compared to 22.2 percent based in rural areas. However, the proportion of individuals within the urban areas that had used the internet was 28.1 percent while only 5.2 percent of individuals within the rural areas had used the internet before. The usage of internet services thus increased from the findings established in 2015 when the proportion of individuals that had used the internet that were based in urban areas was 16.8 percent and 3.2 percent among individuals that were based in rural areas.

Figure 78: Individuals that use internet services by region; 2018



the majority of individuals that had used the internet before or were active users of the internet were mainly based in Lusaka province, Southern province and Copperbelt provinces. On the other hand the smallest proportion of individuals that had used the internet or were active users of the internet were based in Northern province, North Western province and Western province.

Figure 79: Distribution of internet users across provinces

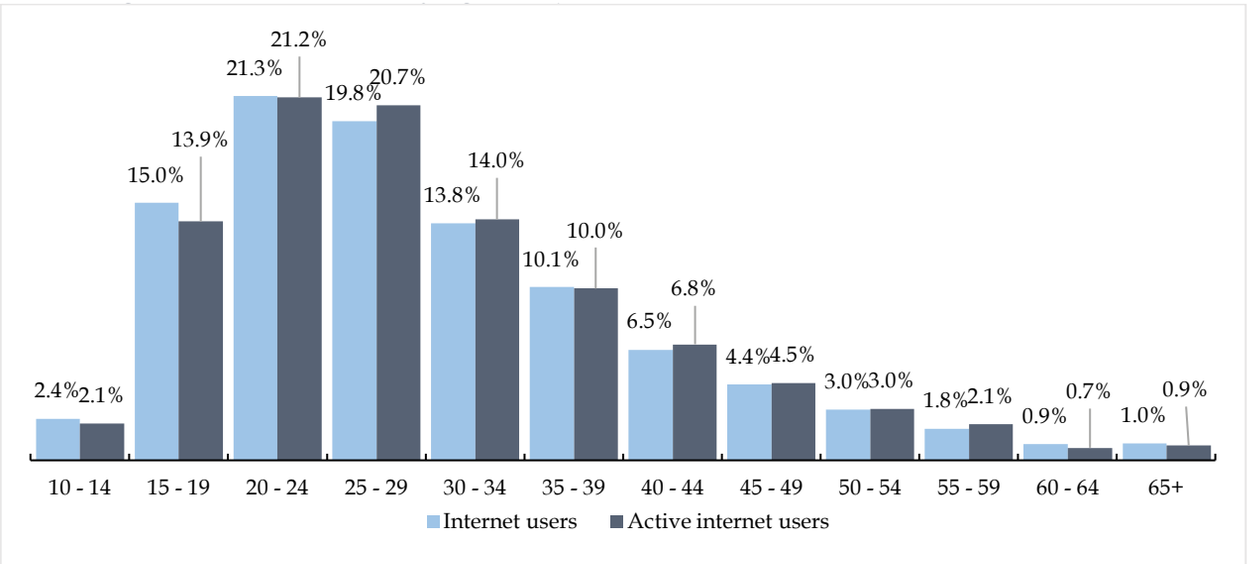


the majority of internet users were males constituting 52.1 percent of all the users of the internet compared to females who constituted 47.9 percent. However, 17.3 percent of all the males had used the internet before while only 12.0 percent of all the females had used the internet before.

The assessment also revealed that 1.2 percent of all the internet users had some disabilities. The proportion of individuals with disabilities that had used internet services before was only 5.7 percent.

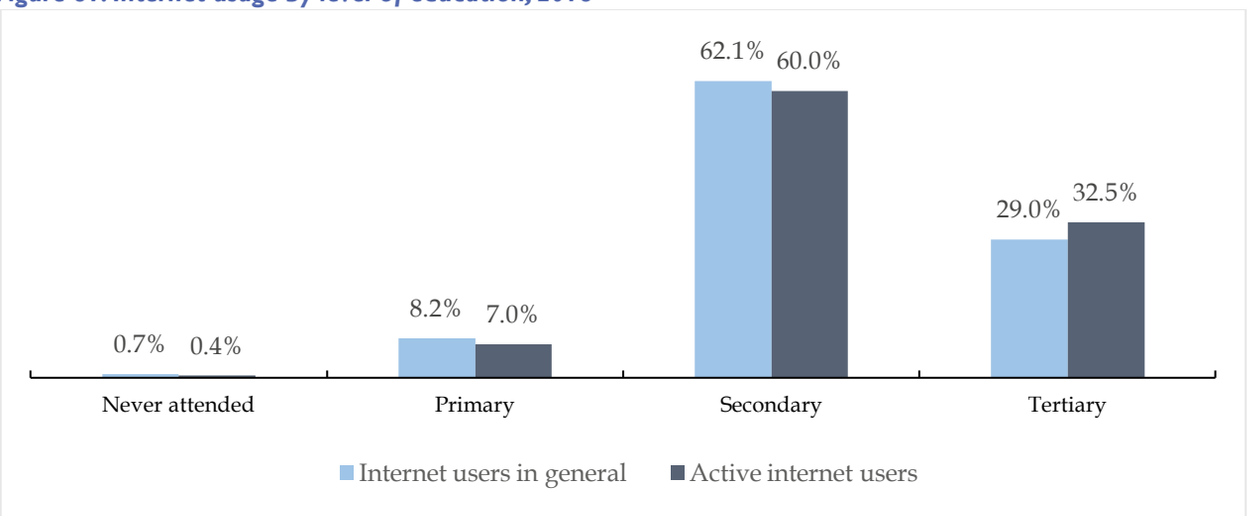
The majority of individuals that had used the internet before or were active users of the internet were young. Specifically, 72.3 percent of all the individuals that had used the internet before were aged below 35 years while 72 percent of the active internet users were aged below 35 years. Less than 5 percent of the individuals that had used the internet before were aged above 55 years.

Figure 80: Internet users by age group; 2018



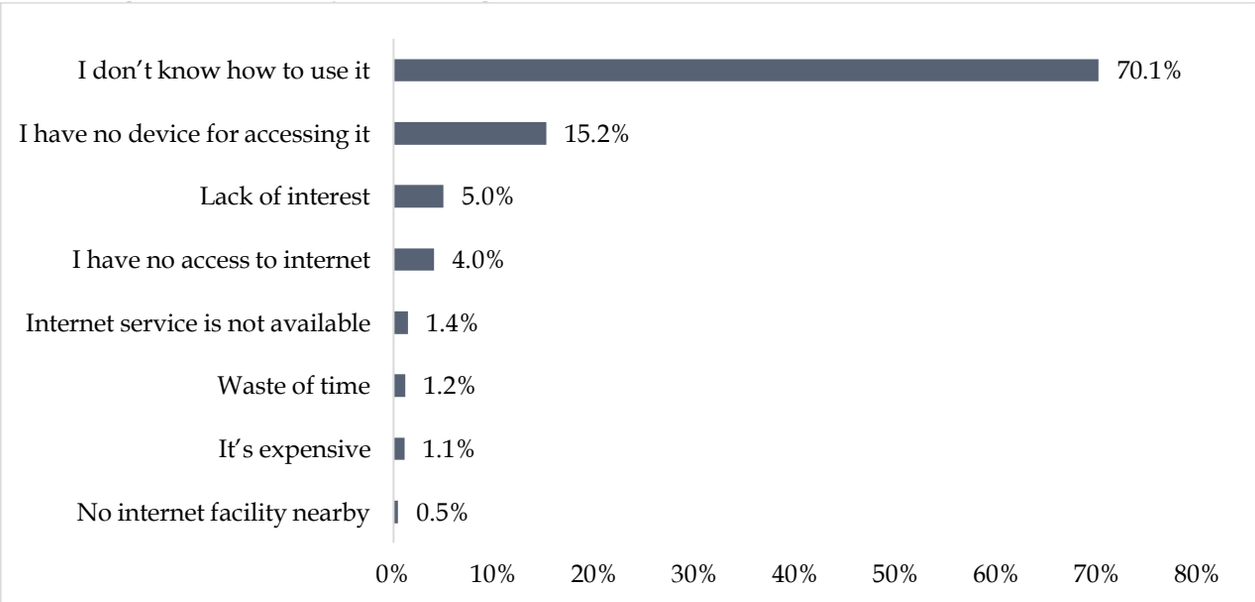
the majority of internet users had attained secondary education accounting for over 60 percent of all the internet users.A similar proportion of active users of the internet had attained secondary education. The usage of internet services was lowest among individuals that had not attained any formal education.

Figure 81: Internet usage by level of education; 2018



the main reason cited for not using the internet by individuals was lack of knowledge on how to use the internet accounting for 70.1 percent of the individuals that indicated that they had never used the internet. Other barriers to the uptake of internet services by individuals included lack of appropriate devices, lack of interest in the services as well as lack of access to the service.

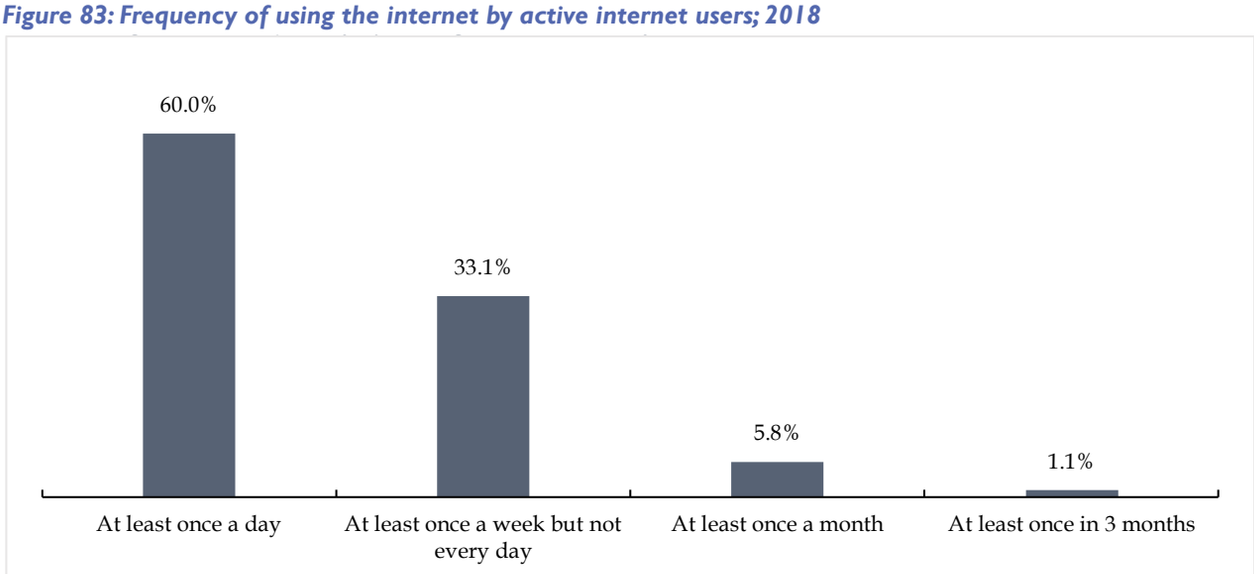
Figure 82: Reasons for not using the internet; 2018



3.3.2. Frequency of Usage of Internet Services

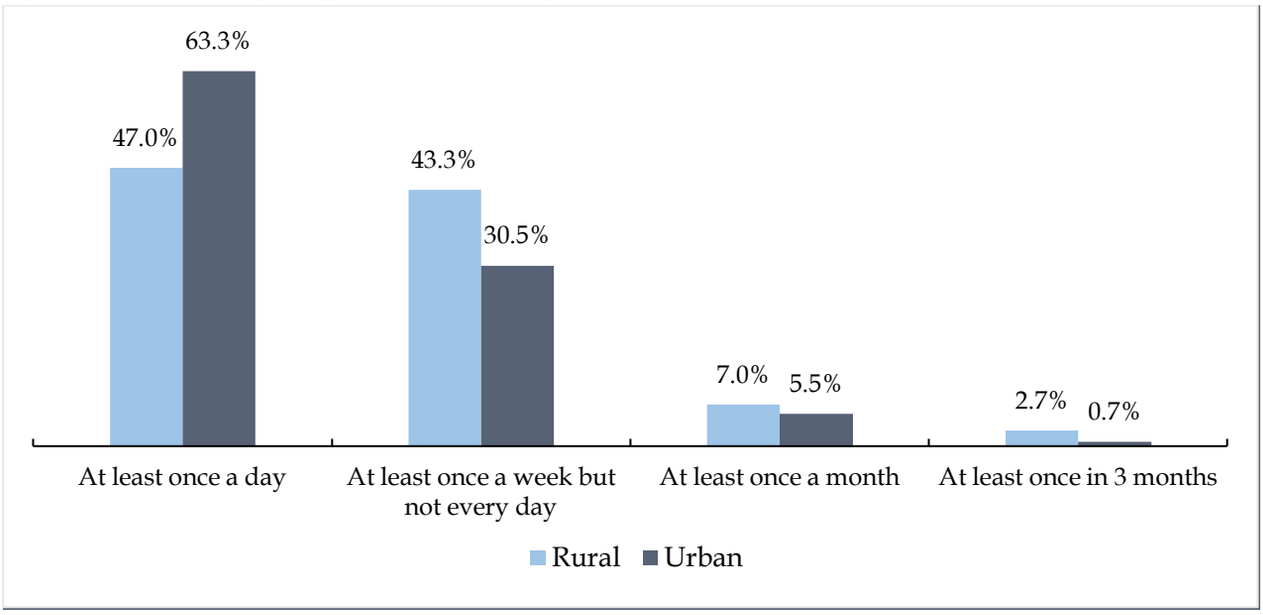
The majority of individuals that used the internet in the three months prior to the survey indicated that they used the internet atleast once a day. Further, over 93 percent of the internet users used the internet atleast once a week. This indicated that most users of internet services used the internet regularly.

Figure 83: Frequency of using the internet by active internet users; 2018



the survey established that the majority of the active internet users who indicated that they used internet services everyday were based in urban areas. Specifically, 63.3 percent of the active internet users that were based in urban areas indicated that they used the internet atleast once a day while only 47 percent of the active internet users that were based in rural areas indicated that they used the internet once a day.

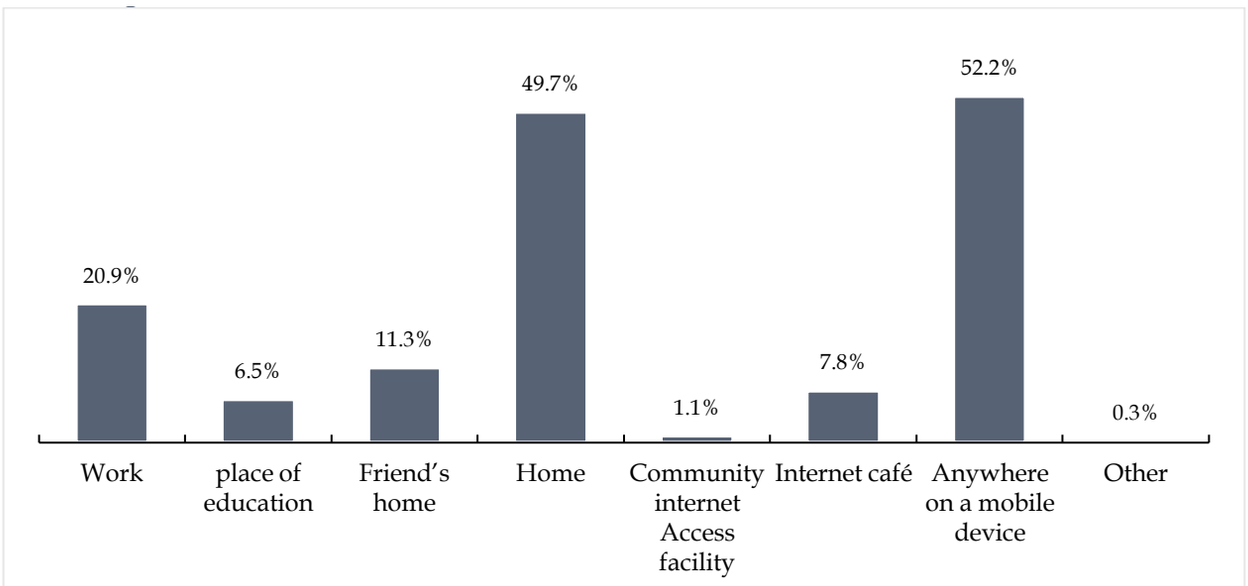
Figure 84: Frequency of using the internet by region; 2018



3.3.3. Places Where Internet Services are Accessed

The majority of active internet users, constituting 52.2 percent of all the users of internet services, reported accessing the internet anywhere on mobile devices. Further, a sizeable number of users of the internet indicated that they accessed the internet at home and at the place of work in the last three months prior to the survey.

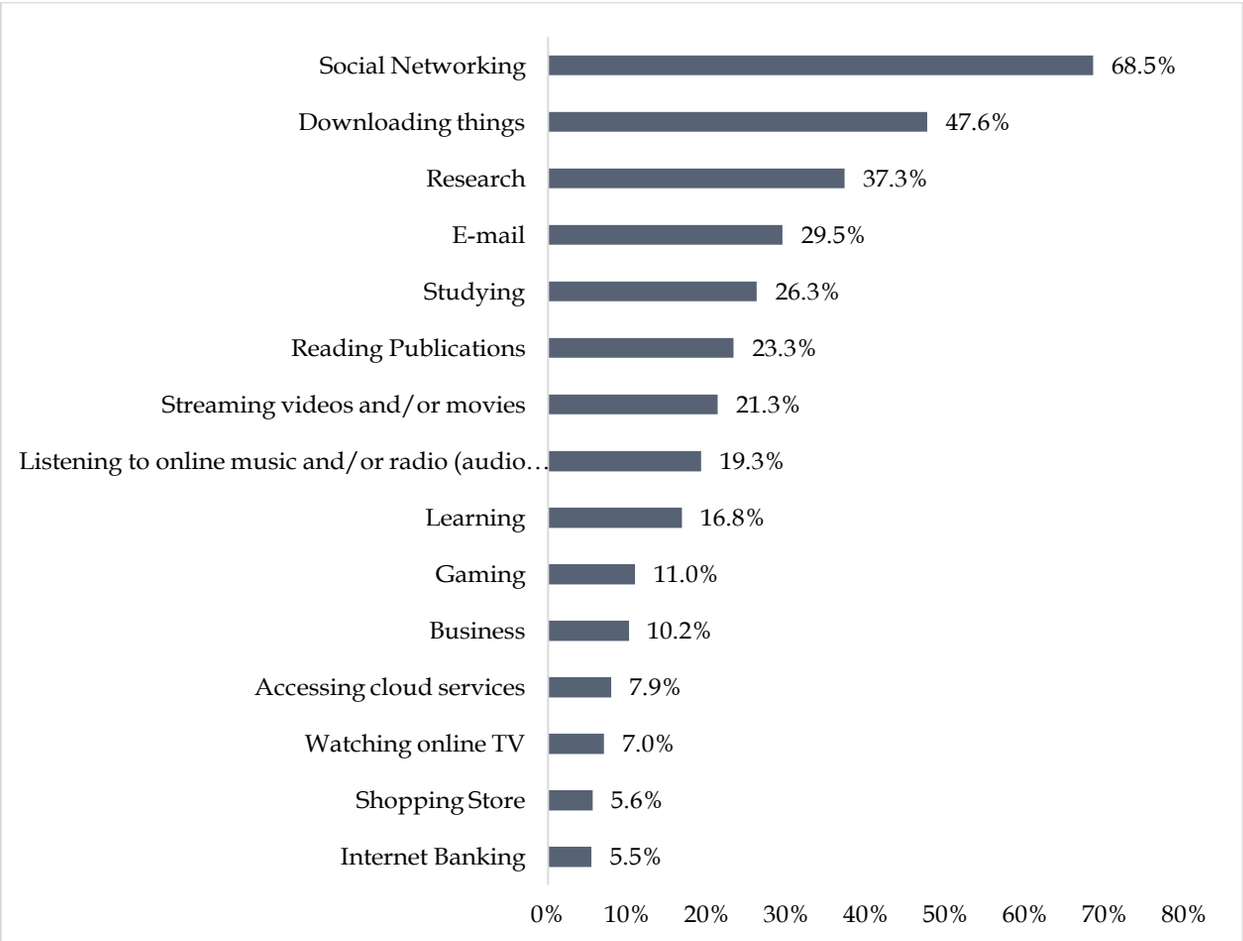
Figure 85: Places where internet users accessed the internet in the last three months; 2018



3.3.4. Activities Undertaken Online

The most common activities undertaken by active users of the internet were social networking, downloading, research and emailing respectively. However, online shopping (shopping store) and internet banking were the least common activities undertaken by active internet users online.

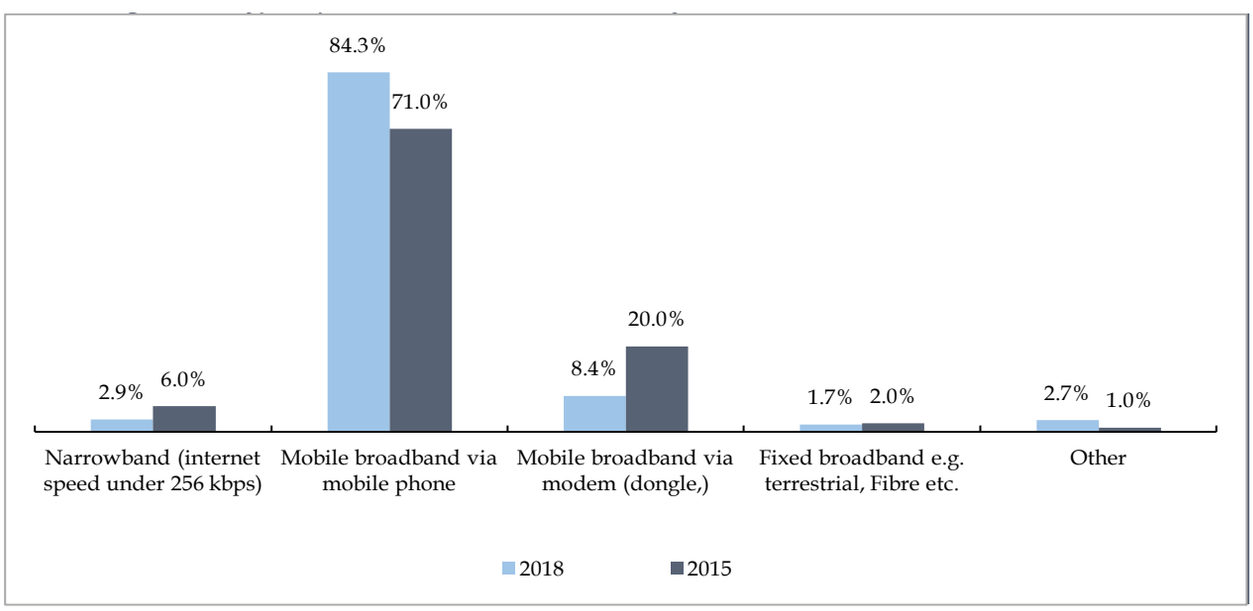
Figure 86: Activities undertaken by active internet users; 2018



3.3.5. Types of Internet Services Accessed

Most of the individuals aged 10 years and above that indicated that they had used internet services before accessed the service through mobile broadband internet services via mobile cellular telephones and modems. In 2018, there were relaltively more individuals aged 10 years and above that indicated that they accessed internet services using mobile broadband internet service via mobile cellular telephone than in 2015. Further, there was a noted decline in the proprotion of individuals that accesed internet services using modem. Other sources of internet services, particularly fixed internet services, remained relatively low in 2018.

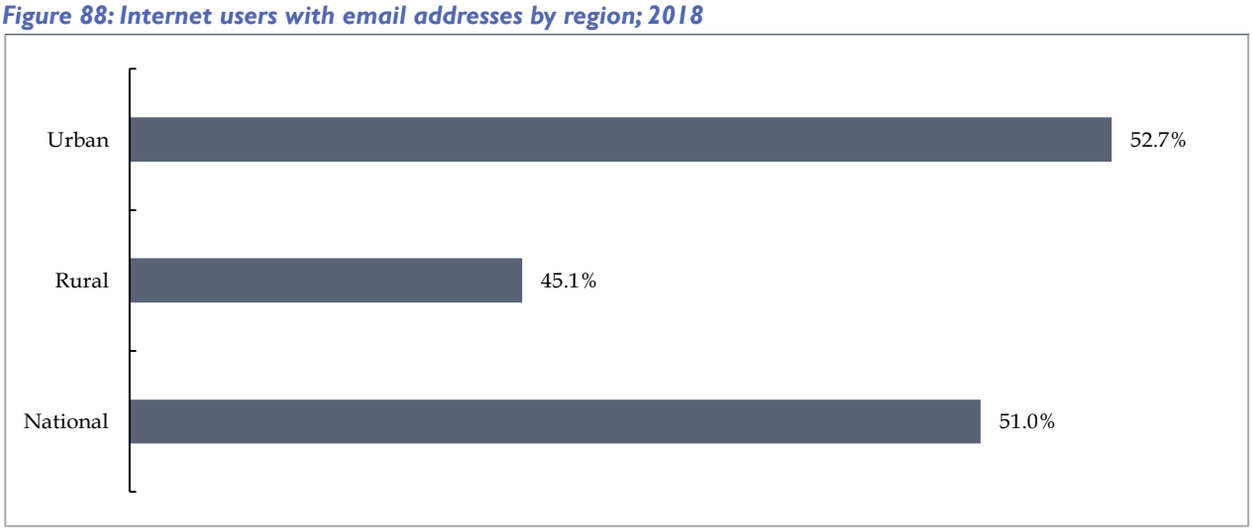
Figure 87: Types of internet services accessed by individuals; 2015-2018



3.3.6. Ownership and Usage of Emails

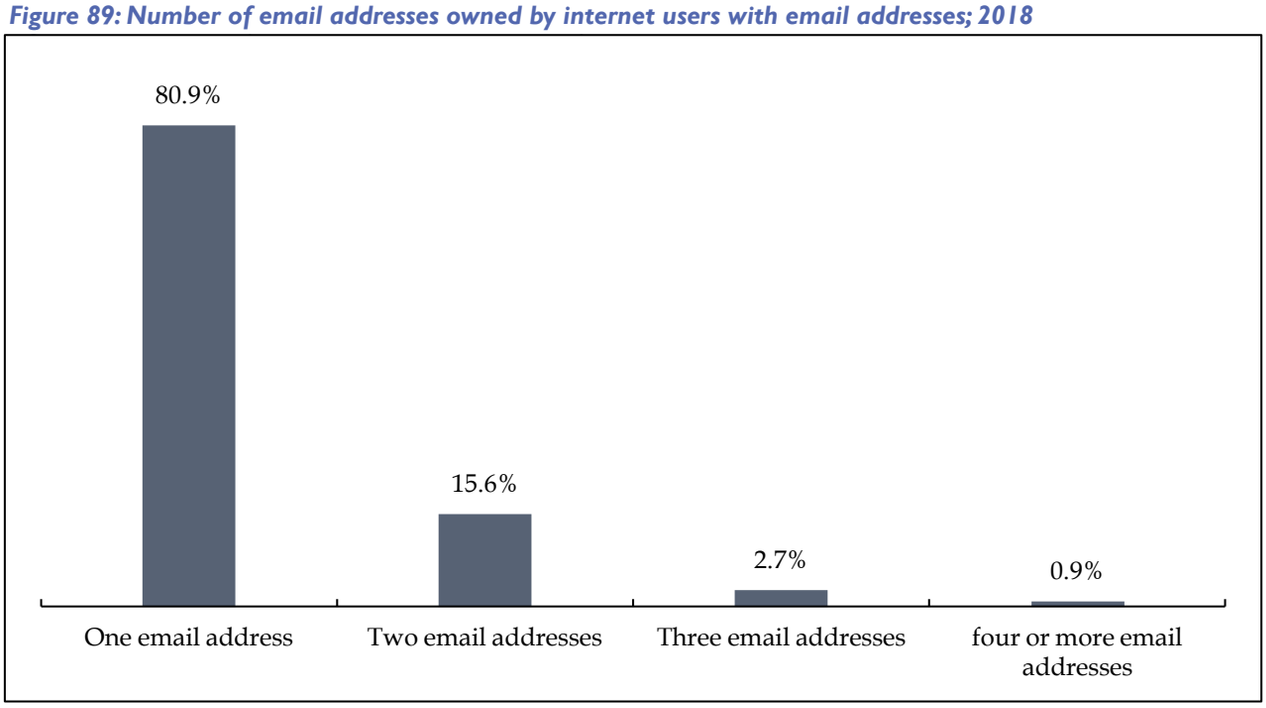
It was observed that 51.0 percent of all the individuals aged 10 years and above that had used the internet before indicated that they owned an email address. This represents an increase of 4 percent points in the proportion of users of the internet that owned an email address from the 47.0 percent reported in 2015. However, 52.7 percent of all the users of the internet based in urban areas had an email address while 45.1 percent of individuals aged 10 years and above that had used the internet before and were based in rural areas owned an email address.

Figure 88: Internet users with email addresses by region; 2018



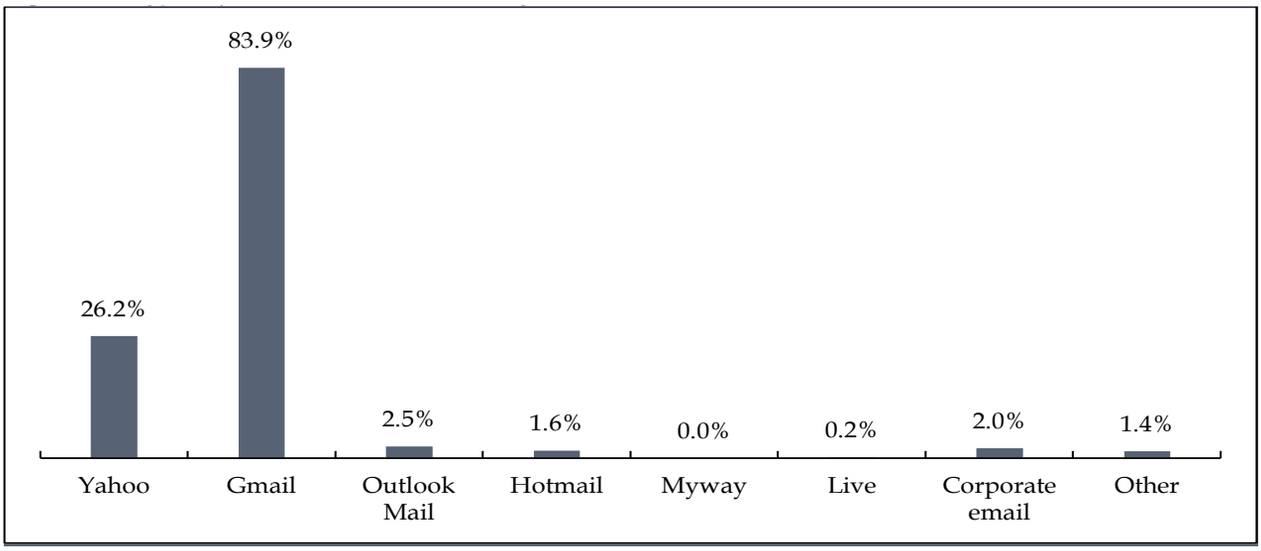
It was further established that 80.9 percent of all the users of the internet that owned email addresses reported having one email address. Further, less than 1 percent of the individuals aged 10 years and above that owned email addresses had more than three email addresses.

Figure 89: Number of email addresses owned by internet users with email addresses; 2018



The majority of internet users with email addresses held an addresses with Gmail and Yahoo. Specifically, 83.9 percent of individuals aged 10 years and above with email addresses held Gmail accounts while 26.2 percent had accounts with Yahoo.

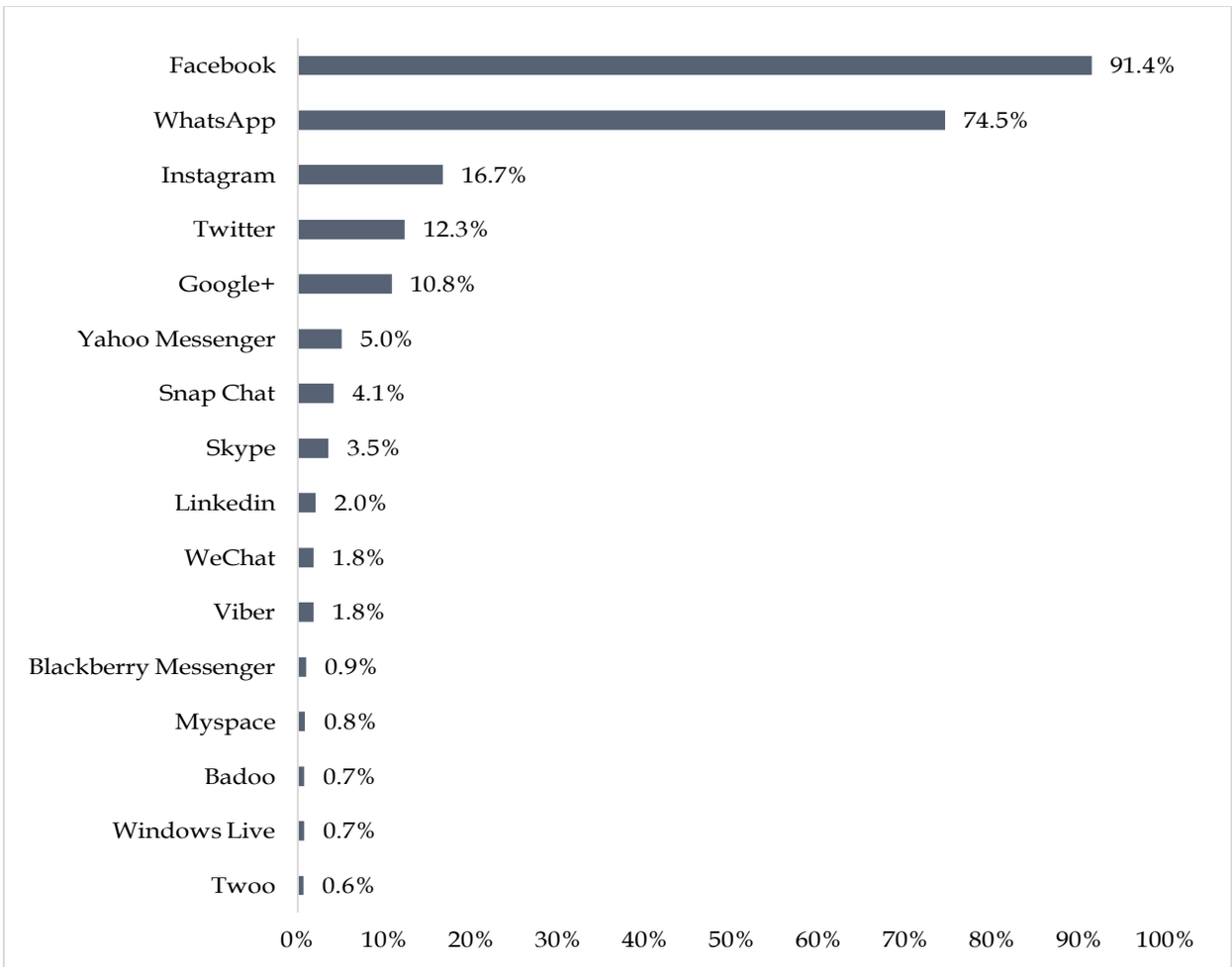
Figure 90: Types of email addresses used by internet users; 2018



3.3.7. Usage of Social Media Platforms

The survey estimated that 78.4 percent of all the users of the internet had at least one social media account representing an improvement of 15.8 percent when compared to the proportion of 63.0 percent reported in 2015. The proportion of internet users with at least one social media account was concentrated in urban areas constituting 80.0 percent while only 20.0 percent were based in rural areas. Facebook was the most prominent social media platform used by internet users accounting for 91.4 percent of all the internet users that were subscribed to a social media platform. WhatsApp was the second most popular social media platform constituting 74.5 percent of all the internet users that were subscribed to a social media platform.

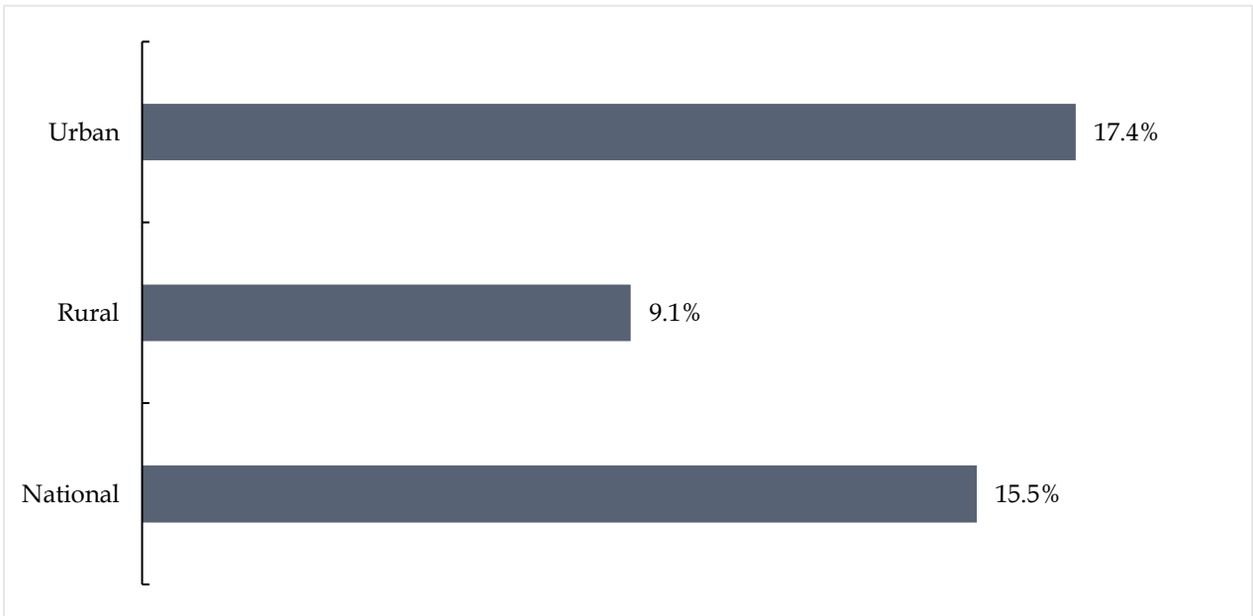
Figure 91: Types of social media platforms used by individuals with social media accounts; 2018



3.3.8. Usage of Cloud Services

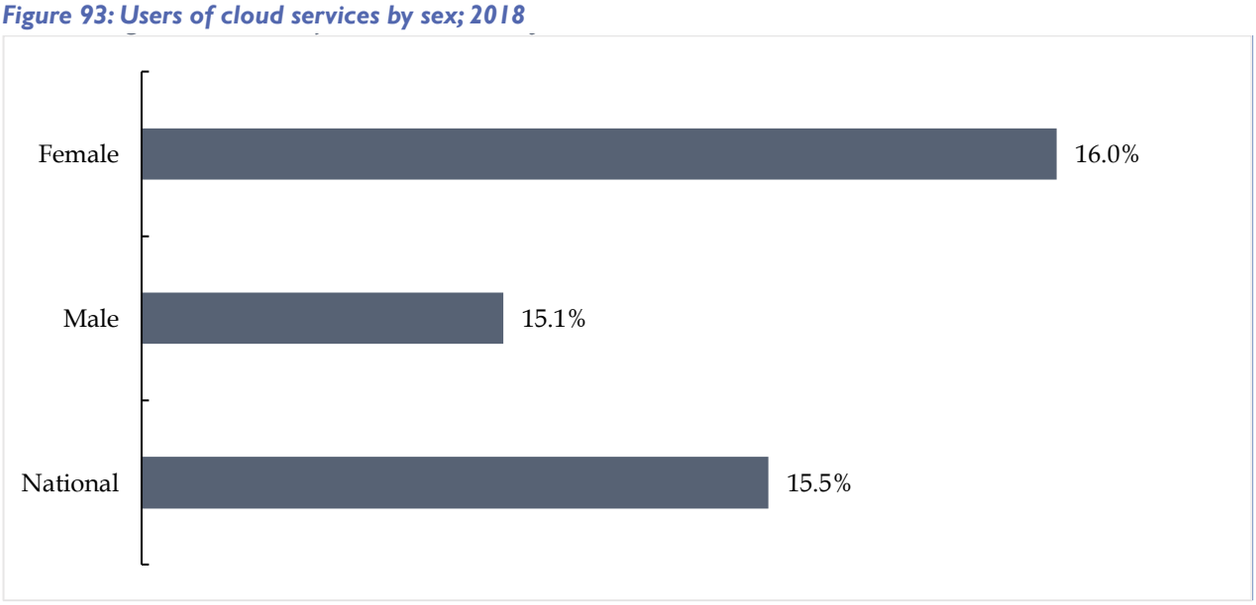
The survey revealed that 15.5 percent of all the users of internet services had used cloud services before. The majority of the users of cloud services were mainly based in urban areas constituting 87.0 percent of all the individuals aged 10 years and above that had used cloud services before compared to 13 percent that were based in rural areas. Further, the findings of the survey established that the usage of cloud services among urban internet users was relatively high amounting 17.4 percent while only 9.1 percent of the internet users based in rural areas had used cloud services before.

Figure 92: Proportion of internet users that use cloud services; 2018



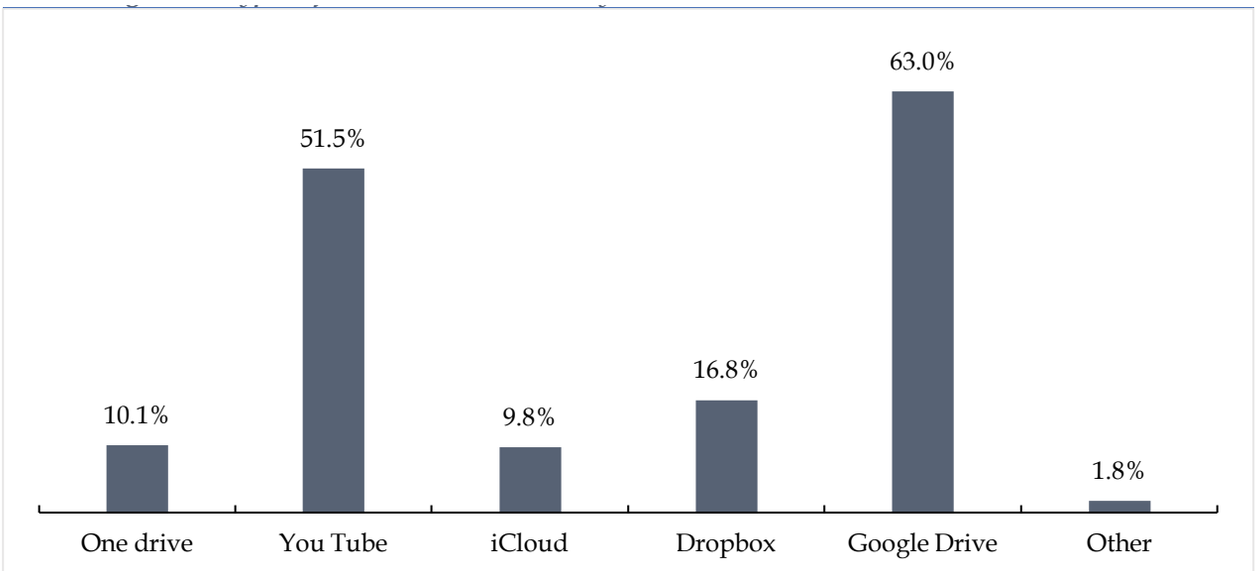
The proportion of females that had used cloud services before was relatively higher than that of males. Specifically, 6.0 percent of the female internet users had used cloud services before compared to 15.1 percent among male internet users.

Figure 93: Users of cloud services by sex; 2018



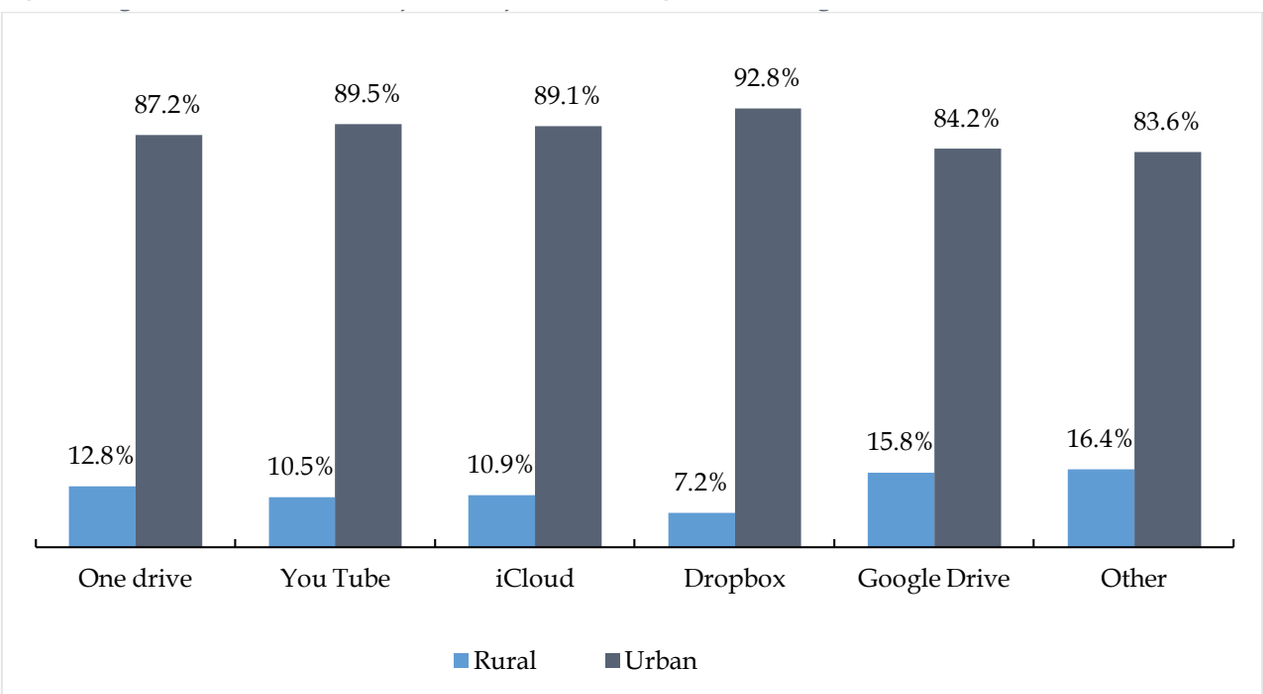
It was established that Google Drive was the most popular cloud service platform used by internet users accounting for 63.0 percent of internet users that had used cloud services before. YouTube equally had a sizeable proportion of individuals that used the services accounting for 51.5 percent of all the internet users that had used cloud services before.The iCloud platform was the least popular cloud service platform among internet users accounting for less than 10 percent of the individuals aged 10 years and above that indicated that they had used cloud services before.

Figure 94 Types of Cloud services used by individuals that access cloud services; 2018



The proportion of individuals aged 10 years and above that used cloud services was significantly higher among internet users based in urban areas compared to internet users based in rural areas. Specifcally, over 80 percent of all the users of cloud computing services across different platforms were based in urban areas.

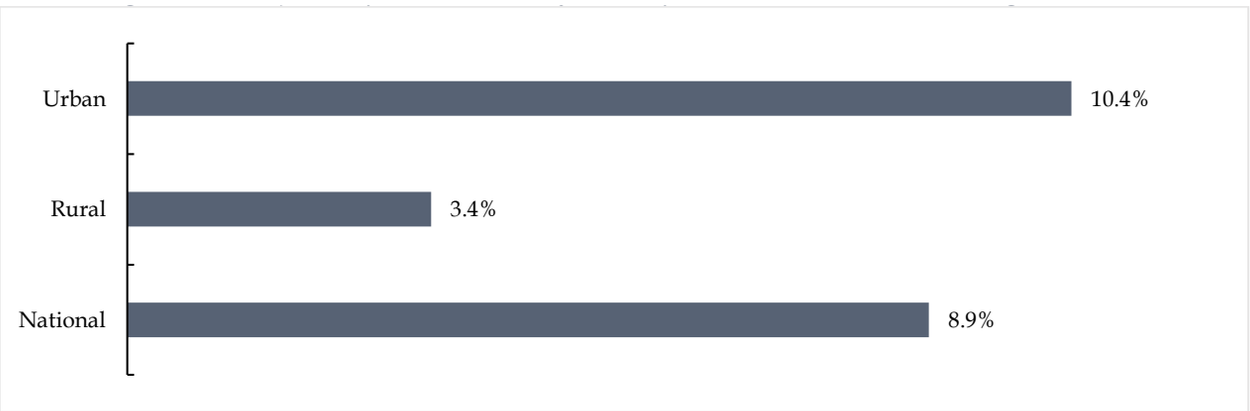
Figure 95: Distribution of users of cloud services across regions; 2018



3.3.9. Usage of E-commerce

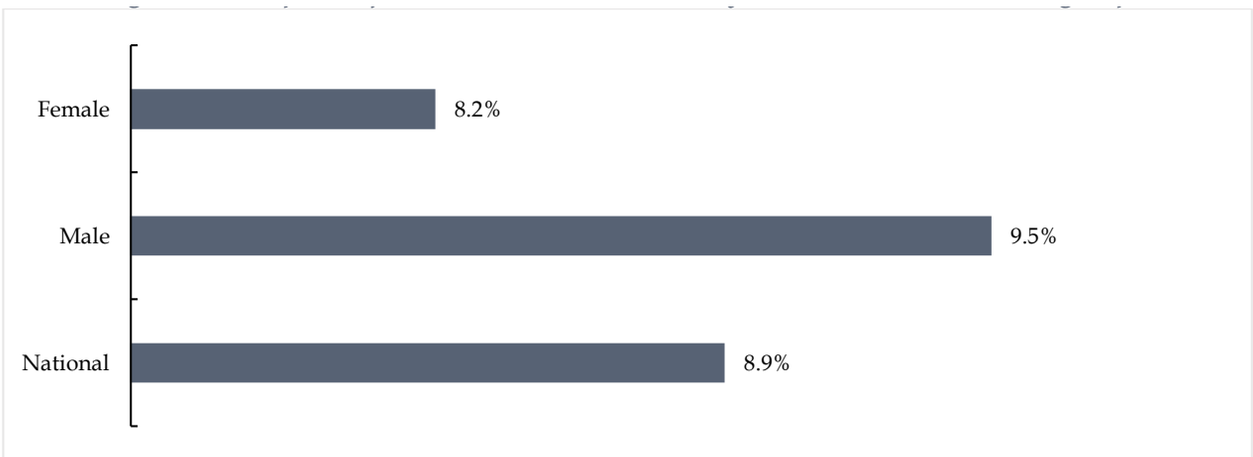
The survey estimated that 8.9 percent of all the individuals that had used the internet before had purchased goods and/or services online. The majority of the individuals that had engaged in e-commerce activities, constituting 93.2 percent, received the goods and/or services in the condition described online. The proportion of internet users that had engaged in e-commerce activities were concentrated in urban areas accounting for 91.6 percent of the internet users that indicated that they had engaged in e-commerce activities while only 8.4 percent were based in rural areas. Further, the adoption of e-commerce was relatively low among internet users based in rural areas constituting 3.4 percent relative to 10.4 percent among internet users that were based in urban areas.

Figure 96: Adoption of e-commerce by users of internet services across regions; 2018



There were relatively more males that were engaged in e-commerce transactions than females. Specifically, 55.7 percent of the people that indicated that they had engaged in some e-commerce transaction before were male while 44.3 percent were female. Further, the proportion of males that had used the internet before and engaged in e–commerce transactions was 9.5 percent while the proportion of females that had used the internet before and engaged in e-commerce transactions was 8.2 percent.

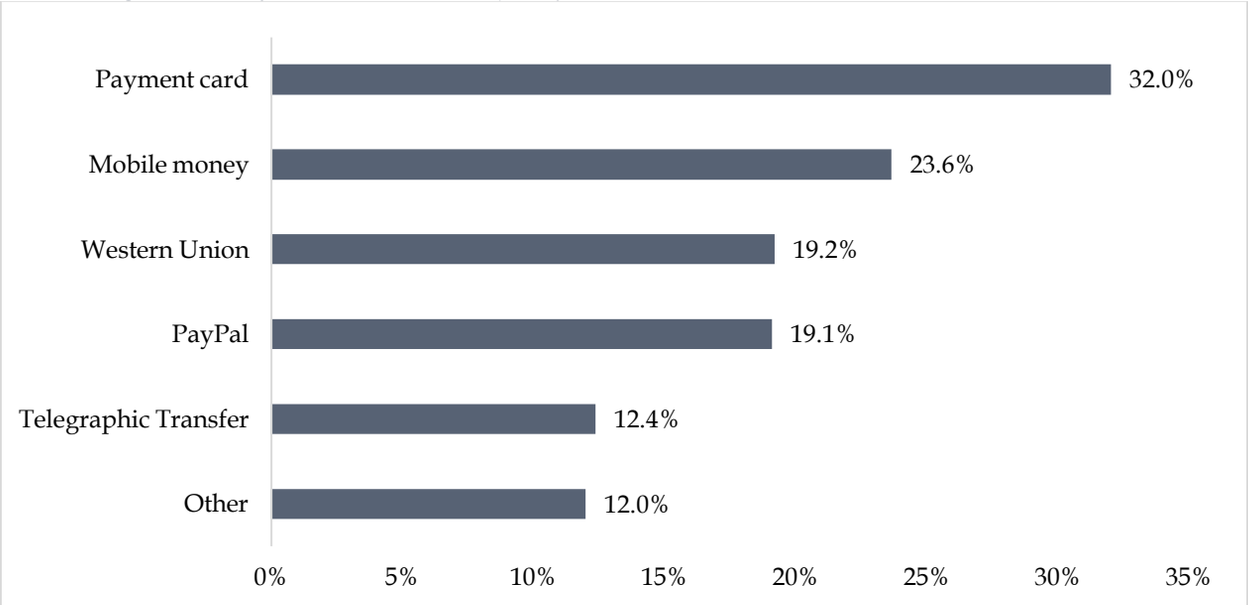
Figure 97: Adoption of e-commerce transactions by internet users across sex groups; 2018



Payment cards[17] and Mobile money were the most prominnet methods of paying for goods and/or services purchased online accounting for 32.0 percent and 23.6 percent of the people that were engaed in e commerce tranactions respectively. The use of telegrahic transfers and PayPal was relatively less widespread accounting for 12.4 percent and 19.1 percent of the people that were engaed in e-commerce tranactions respectively.

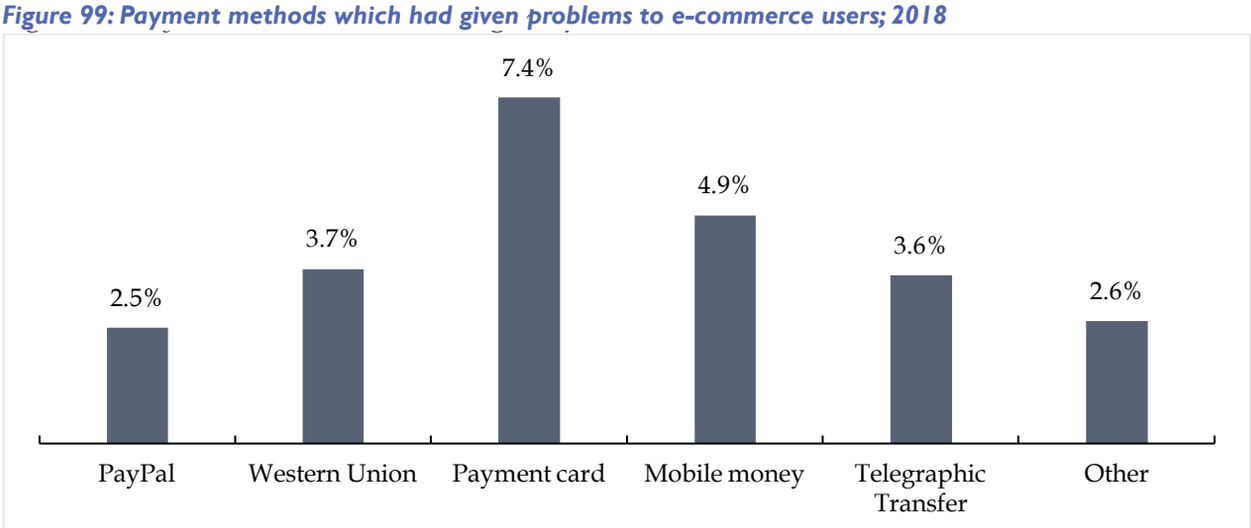
[17] Automatic Teller Machine (ATM) cards such VISA, Master Card, American Express etc.

Figure 98: Payment methods adopted for e- commerce transactions; 2018



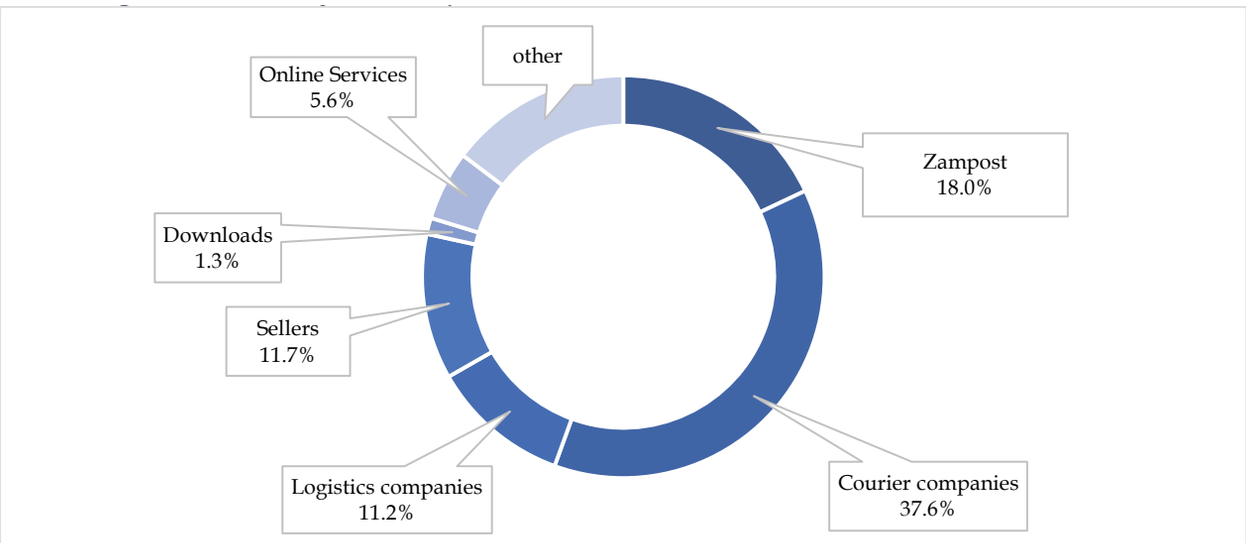
Electronic payments systems are usually not problem-free. The ICT survey investigated e-commerce users' expereience with different payment methods. Despite payment cards and mobile money being popular methods of paying for goods and/or services purchased online they were also cited as having given the most problems. However, none of the payment methods had given problems to more than 8 percent of the individuals aged 10 years and above that were engaged in e-commerce transactions.

Figure 99: Payment methods which had given problems to e-commerce users; 2018



Courier companies and Zampost were the most prominent means of delivering physical goods purchased via e-commerce accounting for 37.6 percent and 18.0 percent of all the e-commerce users respectively.

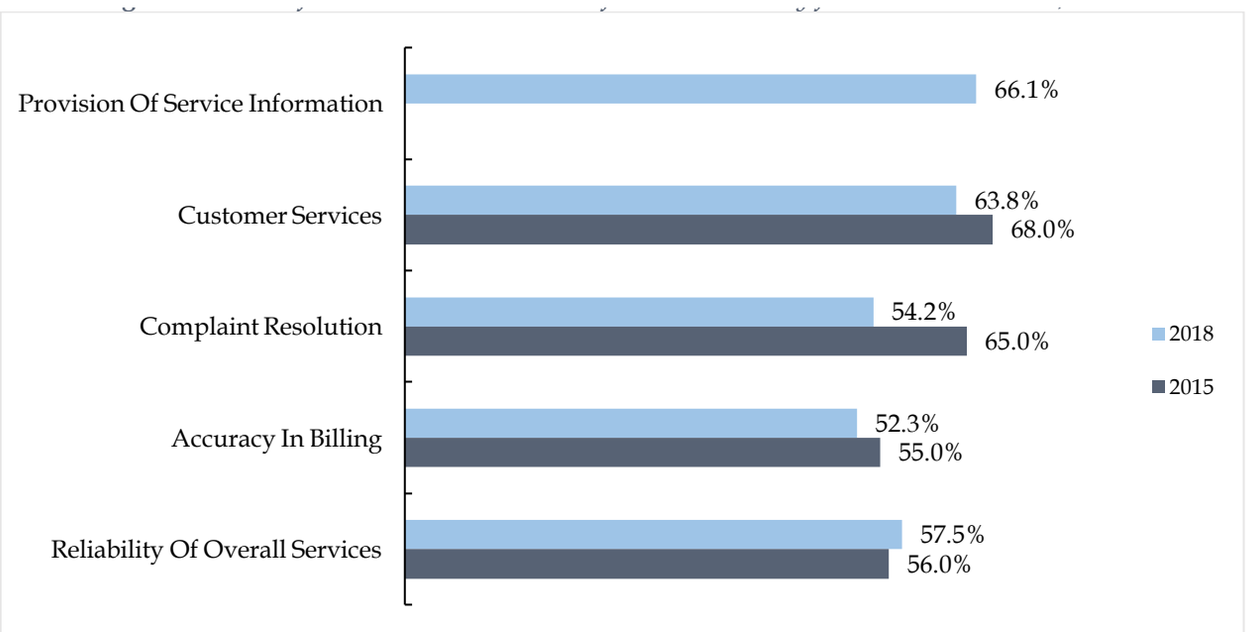
Figure 100: Delivery methods for goods and/or services purchased online



3.3.10. Quality of Experience for Internet Services

The level of satisfaction with various attributes of service delivery for internet services deteriorated marginally between 2015 and 2018. The most significant deterioration was noted in complaint resolution as the proportion of internet users that were satisifeid with complaint resoultion by the provider reduced from 65 percent to 54.2 percent between 2015 and 2018. However, the satisfation with provison of information accounted for the largest proportion of internet users. The smallest proportion of internet users that were satisfied with the identified attributes related to accuracy in billing consisting 52.3 percent of all the users of the internet.

Figure 101: Satisfaction with attributes of service delivery for internet services; 2015- 2018

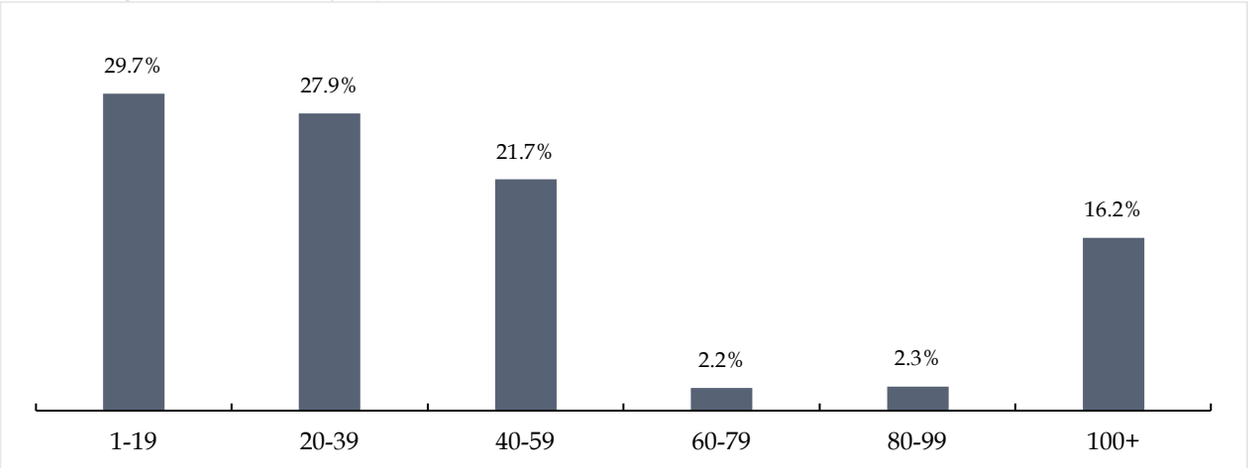


3.3.11. Affordability of Internet Services

3.3.11.1. Monthly Expenditure on Internet Services

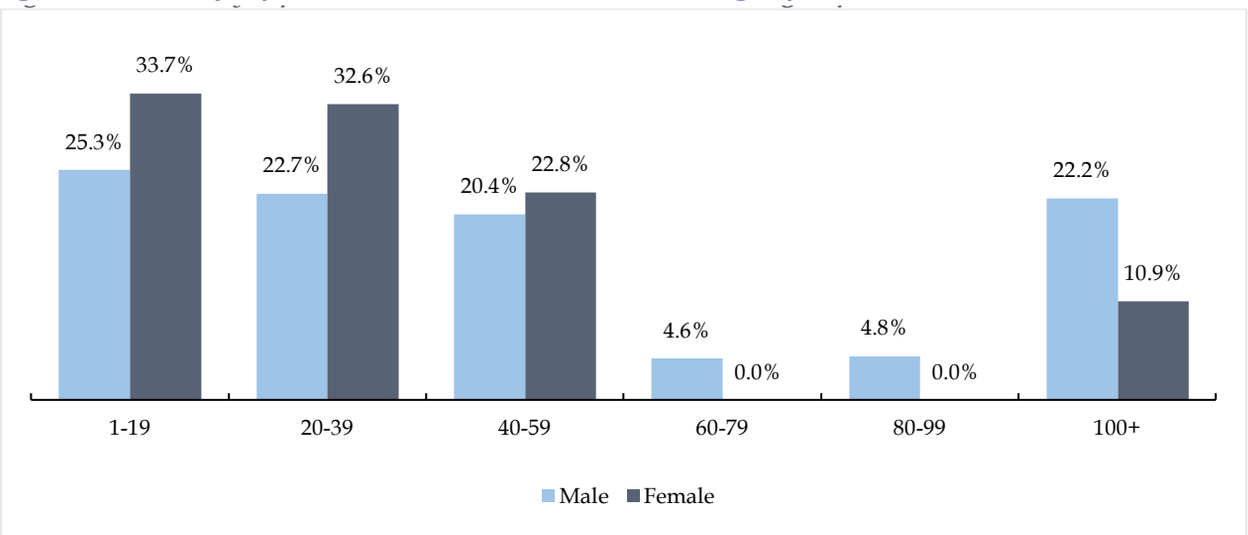
The survey revealed that over 79 percent of the individuals aged 10 years and above that used the internet and were subscribed to a monthly package spent less than ZMW 60.00 per month on internet services. Further, only 16.2 percent of the individuals that used internet services and were subscribed to a monthly package spent more than ZMW 100.00 per month on internet services.

Figure 102: Monthly expenditure on internet services 'ZMW'; 2018



The survey also established that most female internet users spent relatively less on internet services with nearly 91 percent reporting monthly expenditure of less than ZMW 60.00 on internet services. On the other hand, only 68 percent of the male internet users spent less than ZMW 60.00 on internet services. Further, there were more male internet users with monthly expenditure on internet services in excess of ZMW100.00 constituting 22.2 percent of all the male internet users while only 10.9 percent of the female internet users spent more than ZMW 100.00 on the services per month.

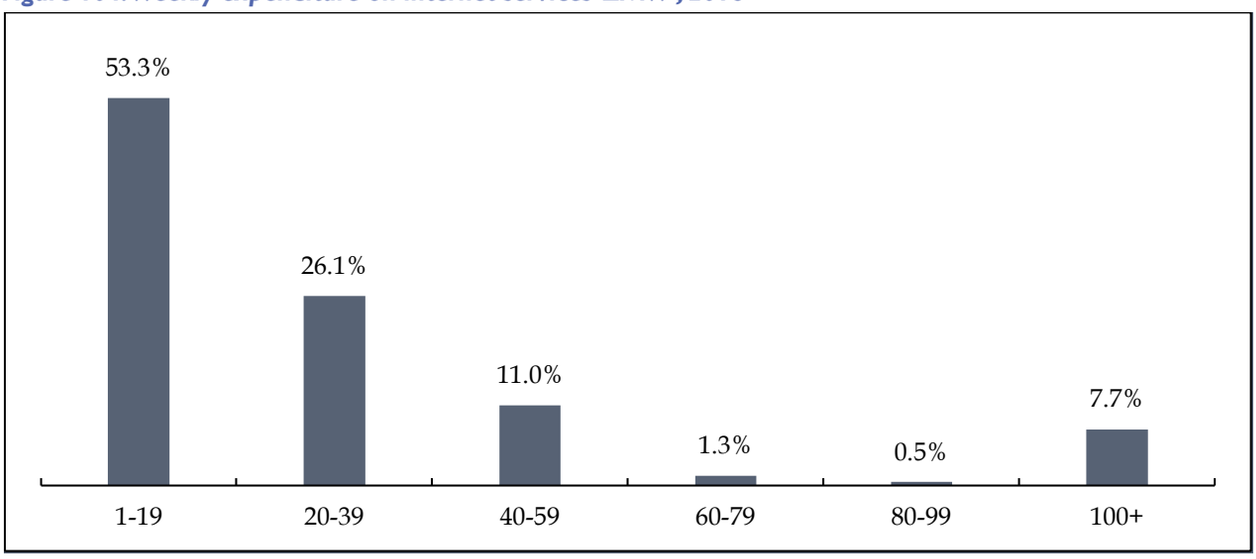
Figure 103: Monthly expenditure on internet services across sex groups; 2018



3.3.11.2. *Weekly Expenditure on Internet Services*

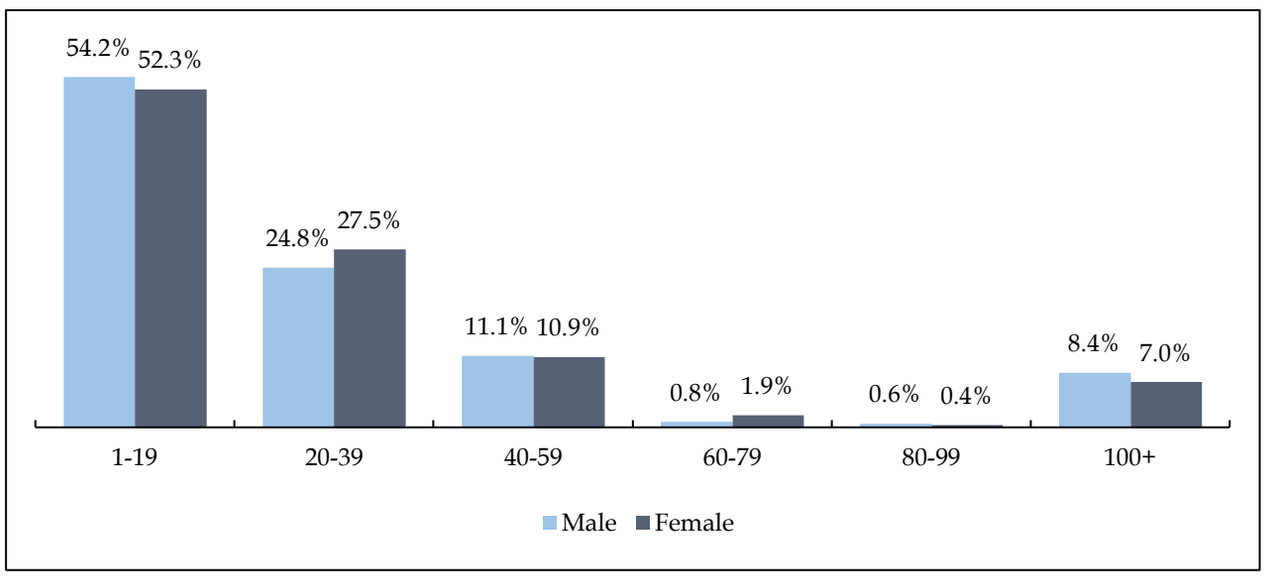
The survey also revealed that the weekly average expenditure on internet services by individuals aged 10 years and above that were subscribed to a weekly or daily package was K30.20. Further the majority of individuals that were subscribed to a weekly or daily package, constituting nearly 90.0 percent of internet users, spent less than K60.00 per week on internet services.

Figure 104: Weekly expenditure on internet services 'ZMW'; 2018



There were more male internet users with weekly expenditure on internet services in excess of ZMW100.00 constituting 8.4 percent relative to females accounting for 7.0 percent. Further, the average weekly expenditure on internet services among males was ZMW30.90 while the average weekly expenditure on internet services among female internet users was ZMW29.43.

Figure 105: Weekly expenditure on internet services across sex groups 'ZMW'; 2018



4.0. Online Risks, Incidents and Mitigation

4.0. Online Risks, Incidents and Mitigation

This chapter presents an overview of the risks exposed to households and individuals aged above the age of 10 years in Zambia when they are online. An assessment of the incidents associated with the identified risks that households and individuals aged above the age of 10 years may have been exposed to is also provided. The chapter further discusses the levels of awareness as well as some of the strategies adopted by households to mitigate the risks associated with being online. Ultimately, the chapter aims to highlight key risks associated with individuals accessing online services in the country and provides an assessment of the capability of individuals and heads of households to mitigate any of the identified risks or incidents.

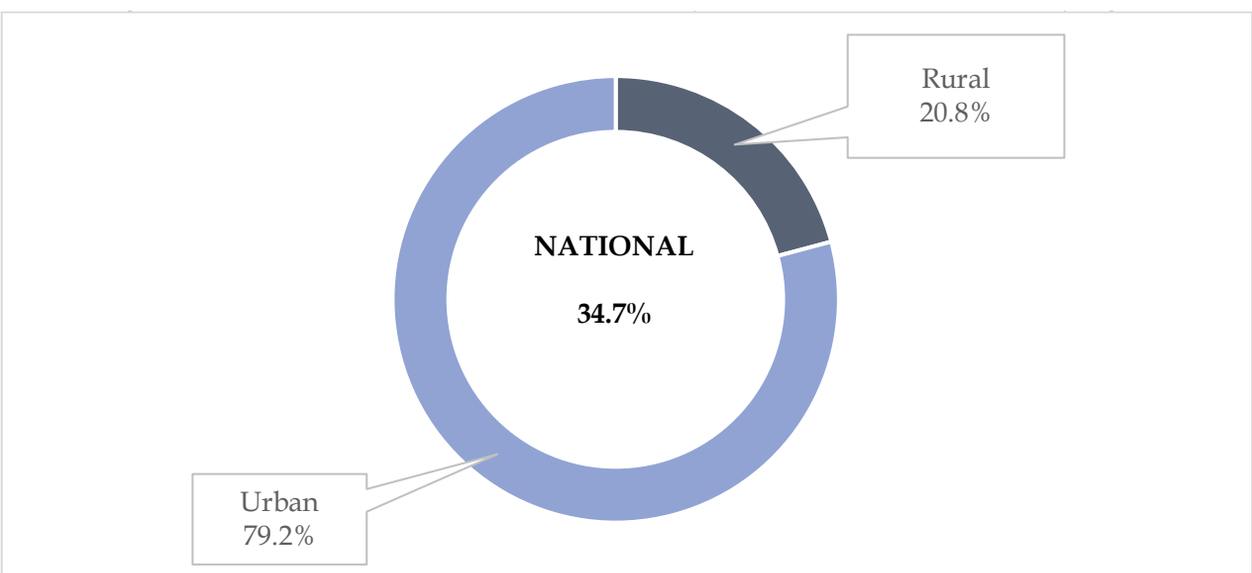
The discussion in the chapter considers various demographic and socio-economic characteristics of the households and population aged above the age of 10 years to identify any salient patterns within the strata. Particularly, differences in the risks and incidents associated with being online across sex groups are presented. An evaluation of the incidence, levels of awareness as well as practices for mitigating risks associated with being online within different demographic groups is also provided.

4.1. Online Risks, Incidents and Mitigation by Households

4.1.1. Monitoring of Online activities by Households

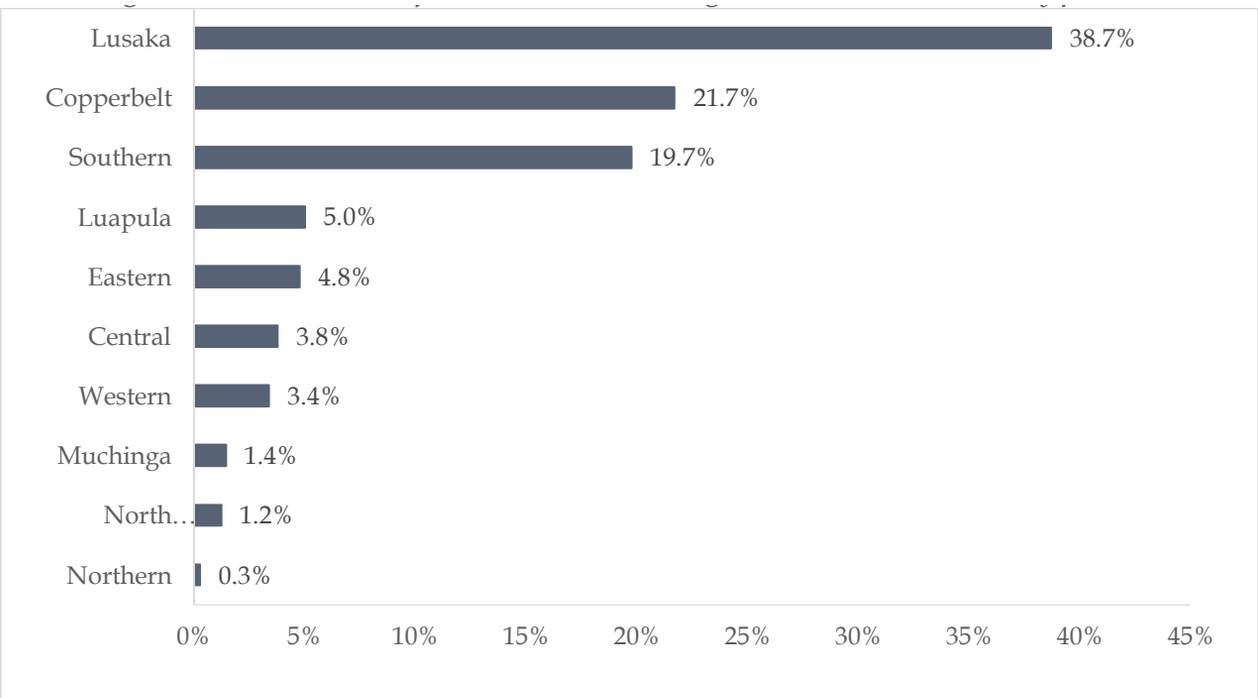
The survey revealed that 34.7 percent of the households that indicated that they had access to internet services at home, had a member of the household who was responsible for monitoring the content accessed online by other members of the household. The majority of the households that had a member responsible for monitoring the content accessed by members of the household were based in urban areas accounting for 79.2 percent of the total number of households with access to the internet.

Figure 106: Households that monitor activities of household members online by region; 2018



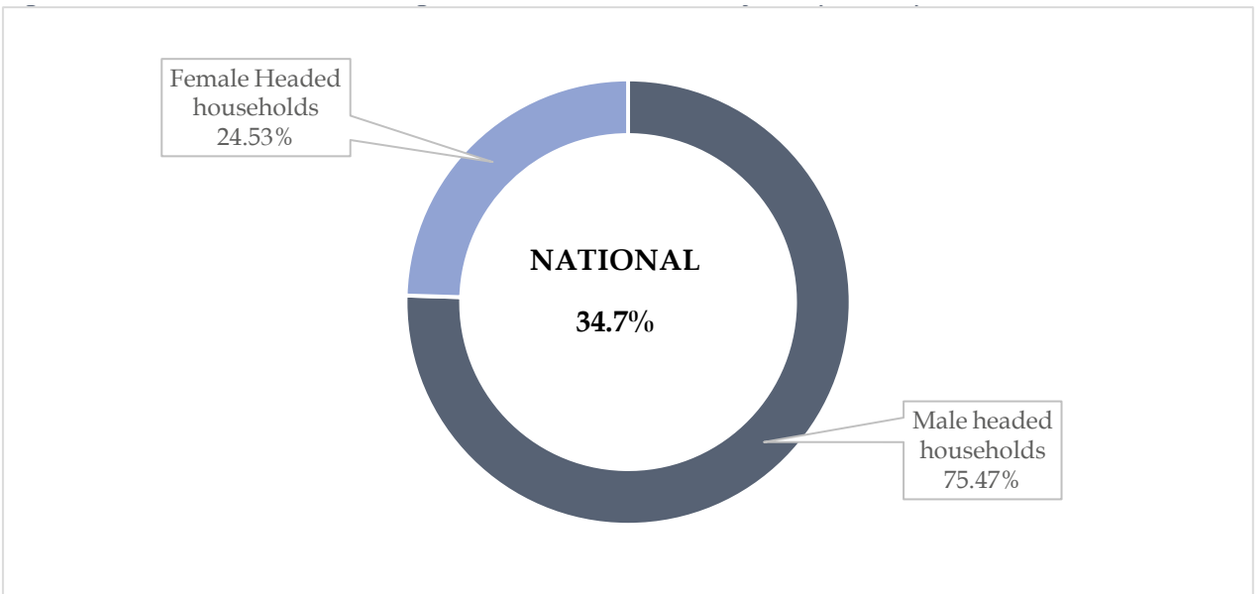
The majority of the households that had access to internet services and had a member of the households responsible for monitoring the content accessed by other members of the household were based in Lusaka and Copperbelt Provinces accounting for 38.1 percent and 21.7 percent respectively. Northern and North Western Provinces had the smallest proportion of the total number of households in the province with access to the internet that had a member responsible for monitoring the content accessed by members of the household accounting for 0.3 percent and 1.2 percent respectively.

Figure 107: Distribution of households monitoring content accessed online by province; 2018



Of the total number households that had access to the internet and had a member responsible for monitoring content accessed online by other members, 75.5% were headed by males.

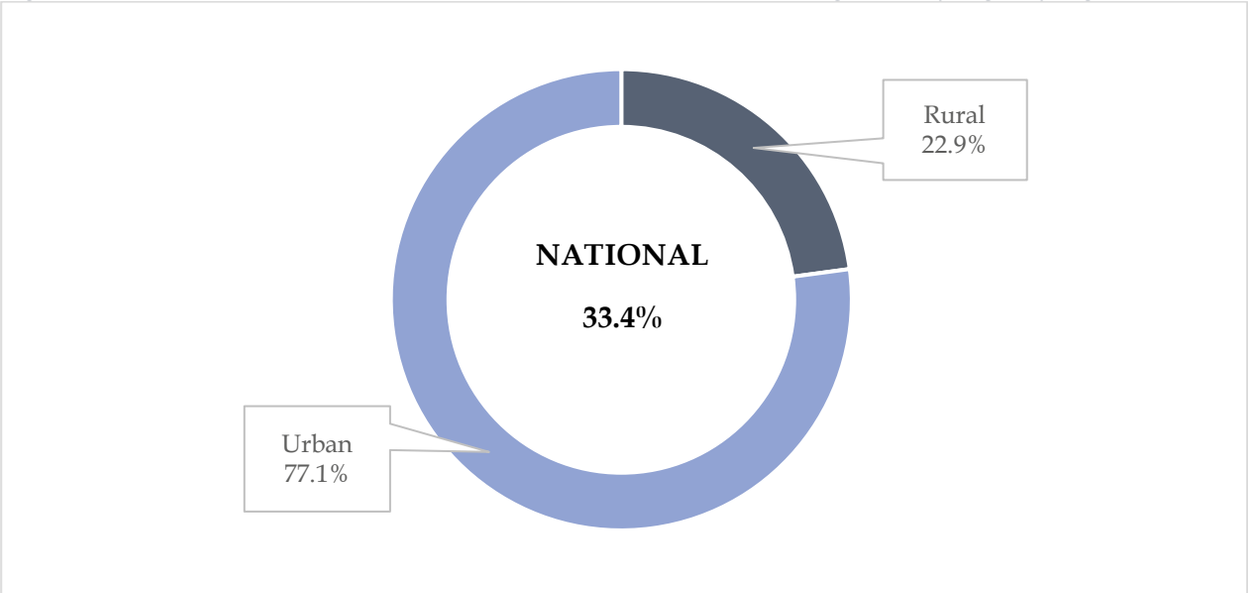
Figure 108: Households monitoring content accessed online by sex of head of household; 2018



4.1.2. Monitoring of Activity Logs and History Pages Online

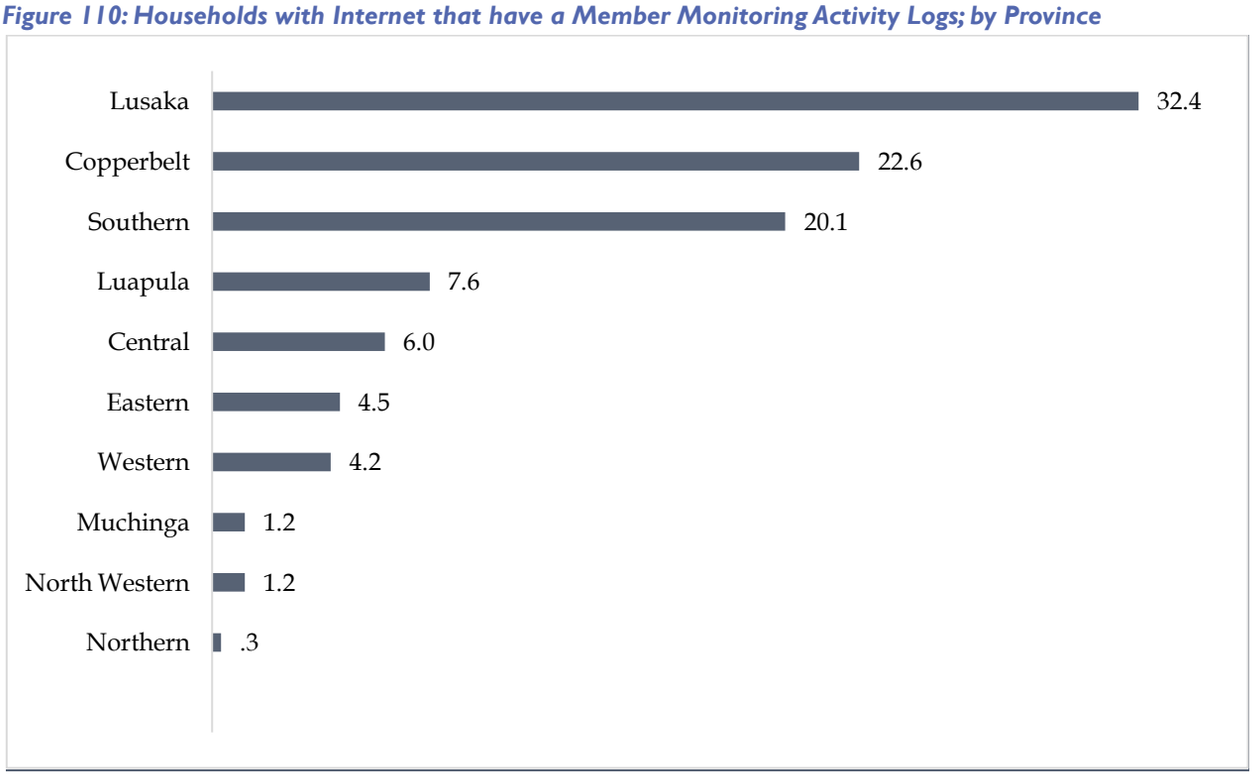
The survey established that 33.4 percent of the total number of households that had access to the internet had at least one member of the household responsible for visiting activity logs of the sites visited by other household members.

Figure 109: Households with internet that have a member monitoring activity logs; by region, 2018



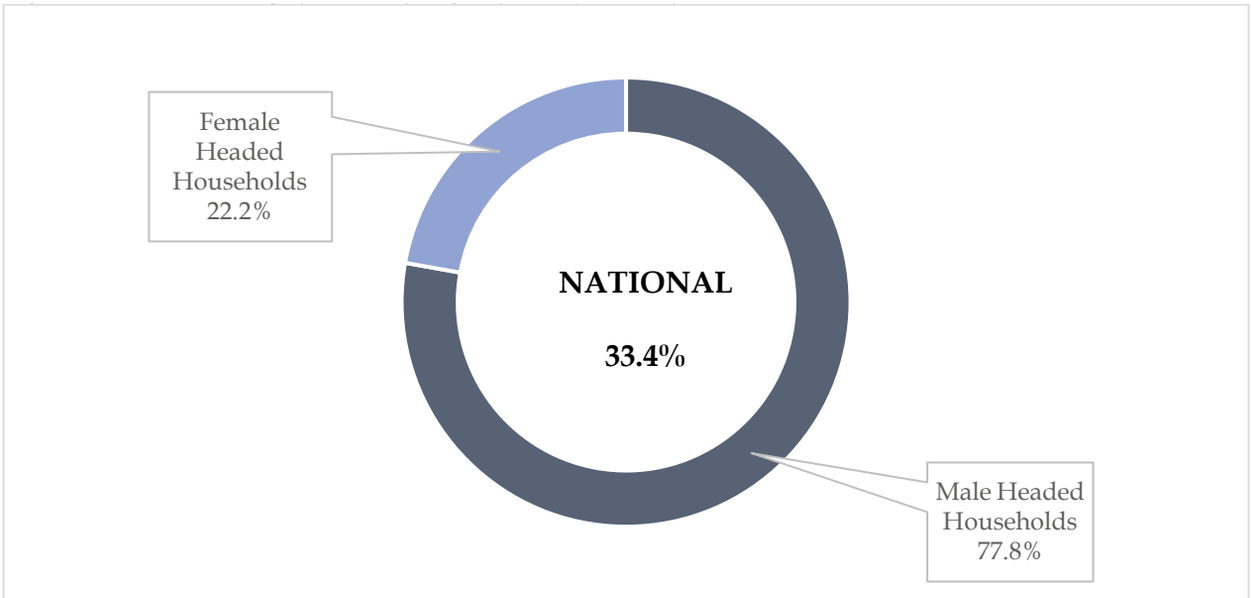
Lusaka Province recorded the highest proportion of the households with access to the internet that indicated that they monitor the activity logs at 32.4% while the lowest proportion of households was observed from Northern, Muchinga and North Western Provinces at 0.3 percent, 1.2 percent and 1.25 percent respectively.

Figure 110: Households with Internet that have a Member Monitoring Activity Logs; by Province



77.8% of the total number of households that had access to the internet and indicated that they had a member responsible for monitoring activity logs for all household members were headed by males.

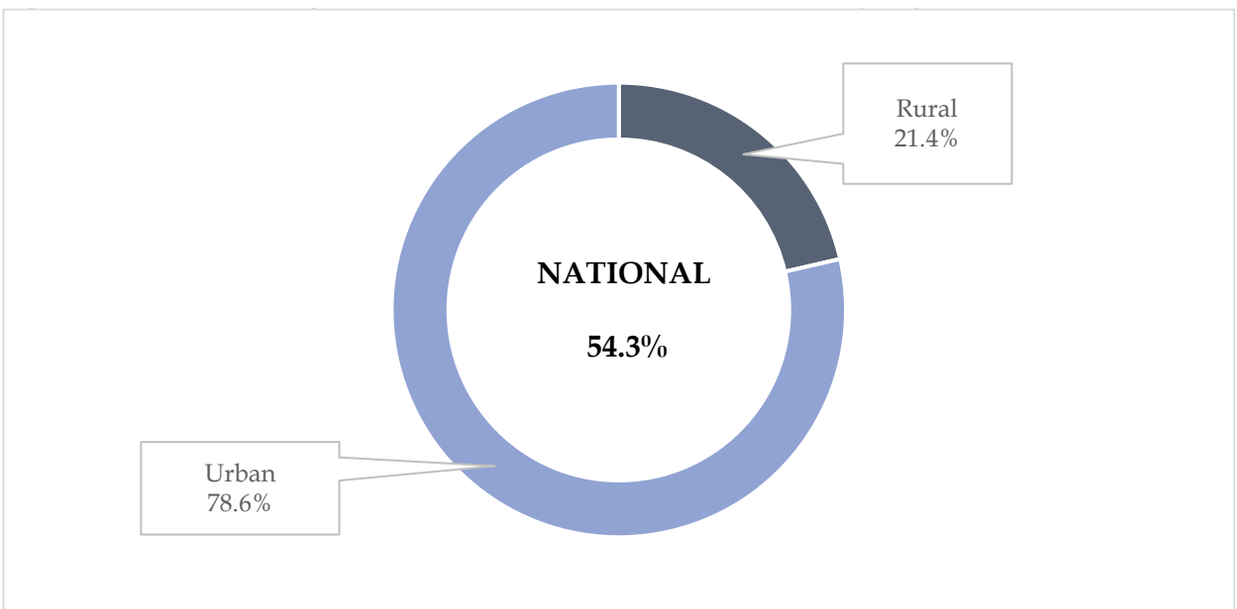
Figure 111: Monitoring of activity logs by sex of head of household; 2018



4.1.3. Awareness of Activities Household Members do while Online

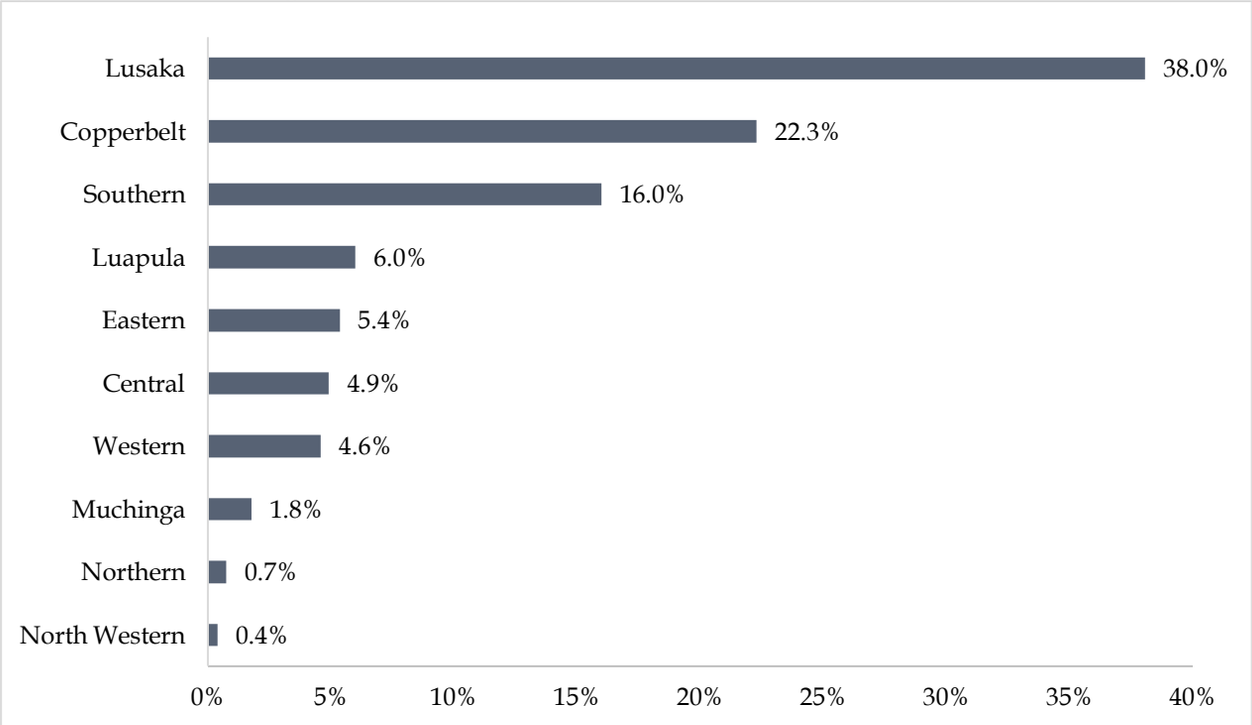
The survey revealed that 54.3 percent of the households that indicated that they had access to the internet had some understanding of the activities that their household members do when they are online.

Figure 112: Understanding the Household members' activities online by Region; 2018



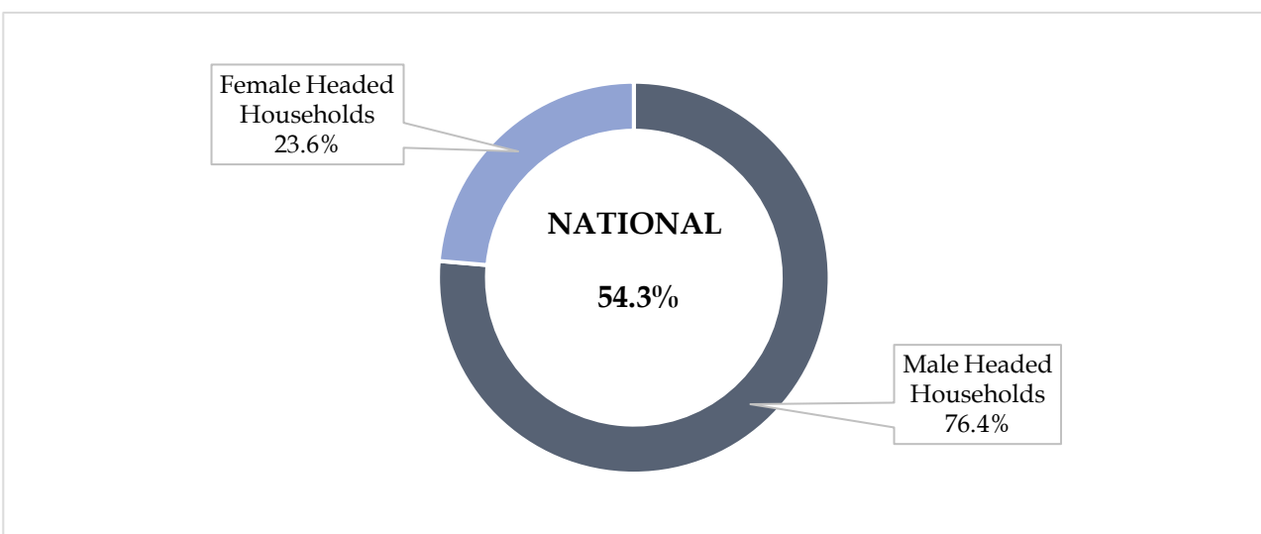
The highest prevalence of households who had access to the internet and indicated that they had an understanding of the activities that household members undertake when they are online were in Lusaka, Copperbelt and Southern Provinces accounting for 38 percent, 22.3 percent and 16 percent respectively. The least proportions were observed in North-Western, Northern and Muchinga Provinces accounting for 0.4 percent, 0.7 percent and 1.8 percent respectively.

Figure 113: Understanding the household members' activities online across provinces; 2018



The majority of households that indicated that they had access to the internet and had an understanding of the activities that household members undertake when they are online were headed by males constituting 76.4 percent of the total.

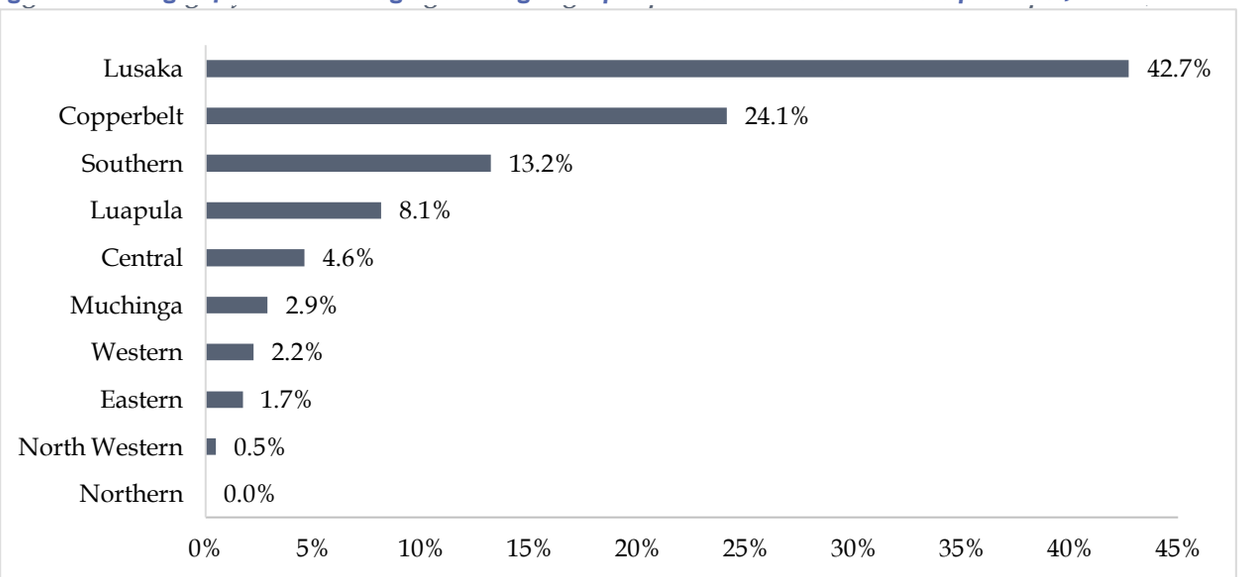
Figure 114: Understanding of the household members' activities online across sex of head of household; 2018



4.1.4. Usage of Tools or Strategies to Mitigate Exposure to illicit Content

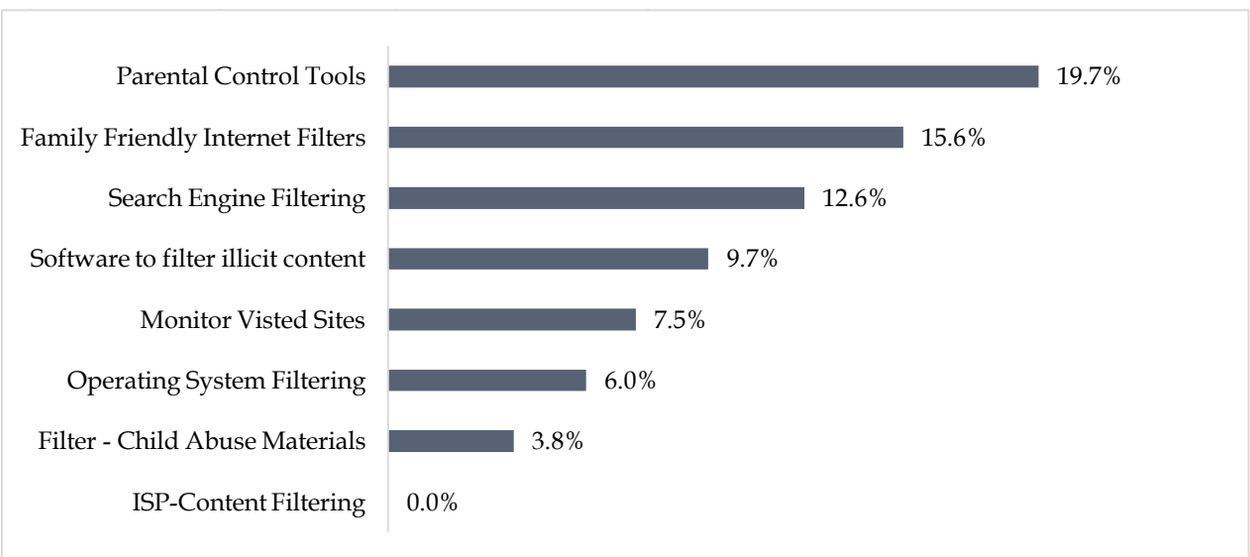
The survey established that the proportion of households that indicated that they used tools or strategies to mitigate exposure to illicit content was very low accounting for 14.5 percent of the total number of households that reported that they have access to the internet at home. Lusaka, Copperbelt and Southern Provinces accounted for the largest proportion of households within the province that indicated that they used tools or strategies to mitigate exposure to illicit content accounting for 42.7 percent, 24.1 percent and 13.2 percent respectively. The lowest proportion of the households that have used any tools/strategies to mitigate exposure to illicit content were based in Northern, North Western and Eastern Provinces accounting for less than 0.1 percent, 0.5 percent and 1.7 percent respectively.

Figure 115: Usage of tools or strategies to mitigate exposure to illicit content across provinces; 2018



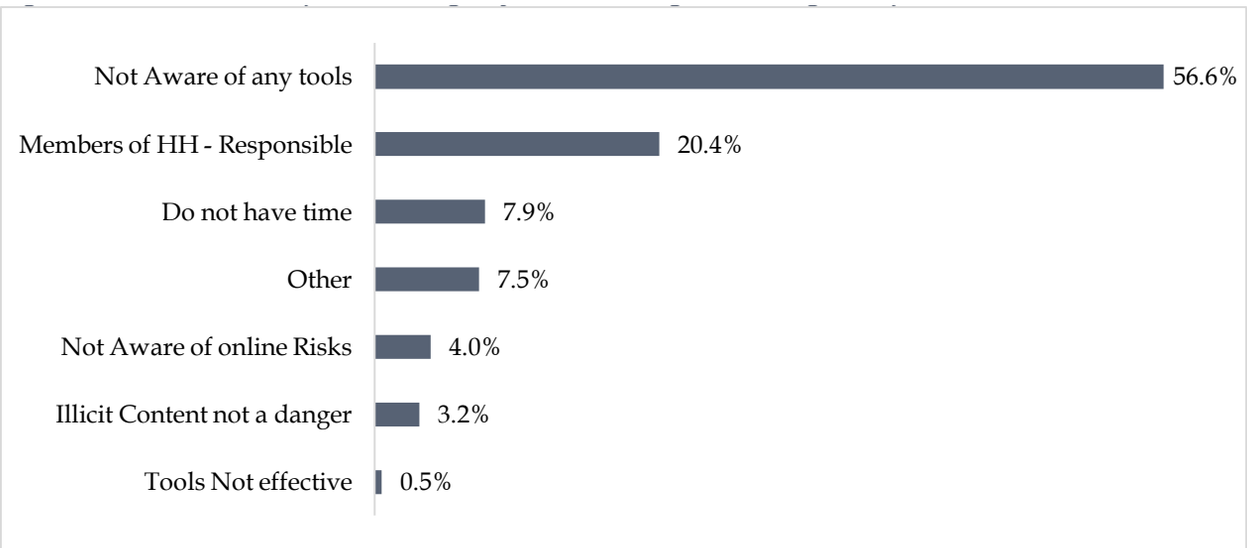
The most widely adopted tools or strategies by households to mitigate against risks associated with exposure to illicit content included web browser filtering parental control tools, family friendly internet filters and Search engine filtering accounting for 19.7 percent, 15.6 percent, and 12.6 percent respectively. Content filtering by internet service providers as well as filtering child abuse materials accounted for the least adopted strategies by households that had adopted some strategies to mitigate against risks.

Figure 116: Strategies adopted by households to mitigate exposure to illicit online content; 2018



The survey established that the main reason cited for not using any tools or strategies by 56.6 percent of the households that reported that they did not employ any tools or strategies to mitigate exposure of the households to illicit content, was that these households did not know of the existence of any such tools. The effectiveness of tools or strategies was not a significant barrier to the adoption of tools or strategies for mitigating the risk as less than 1 percent of the households that indicated that they had not adopted any tools or strategies cited this as a problem.

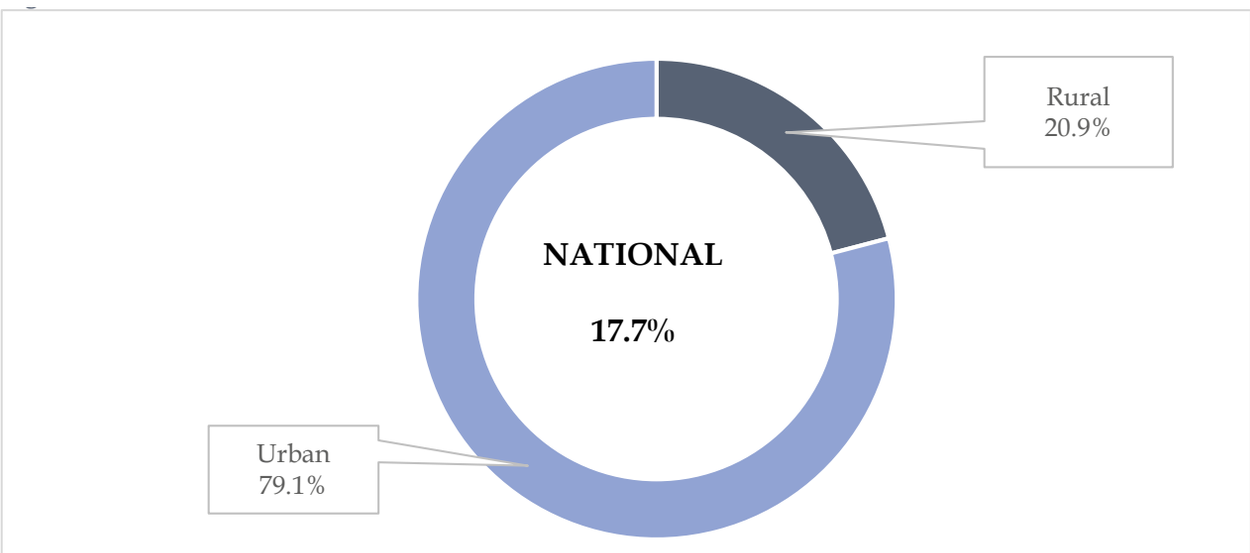
Figure 117: Main reasons for not using any tools/ strategies to mitigate exposure to illicit content; 2018



4.1.5. Established Rules about using the Internet by Households

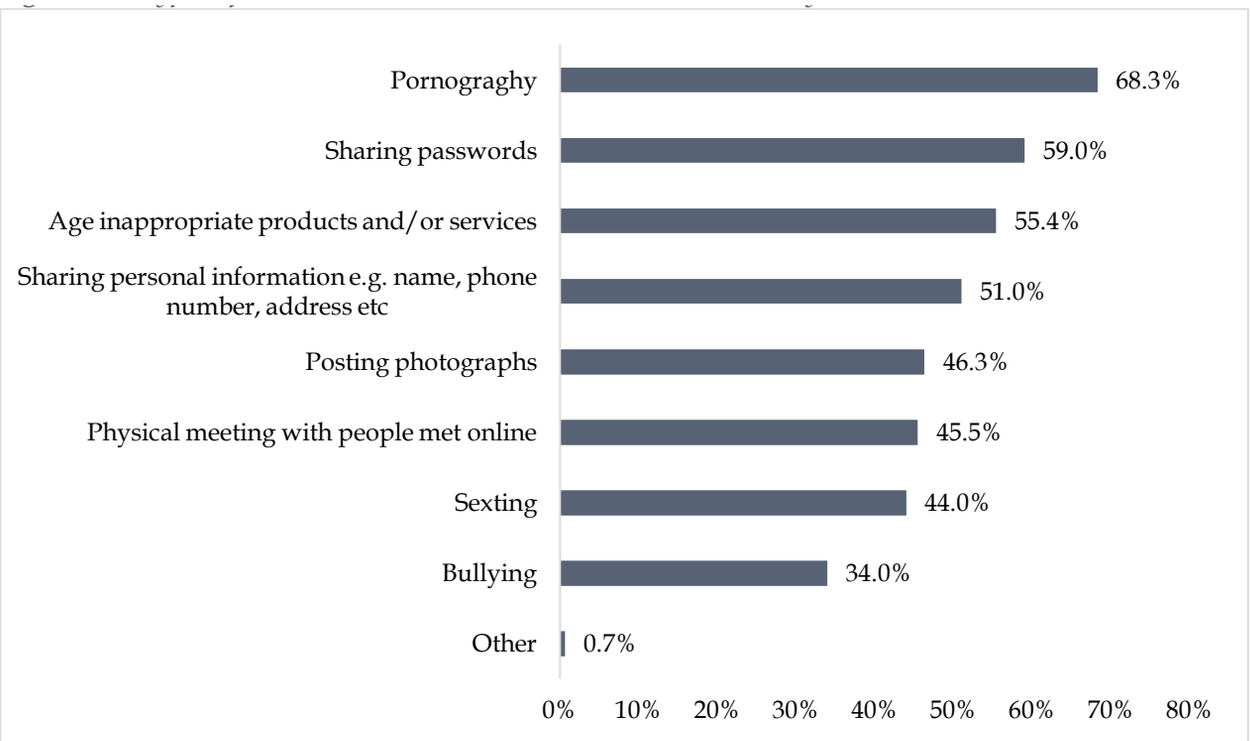
The survey estimates revealed that only 17.7 percent of the households with access to the internet had established rules among household members on how to use the internet. The majority of these households constituting 79.1 percent, were based in urban areas.

Figure 118: Households that have established rules on how to use the internet; 2018



The majority of households that have established rules regarding online activities, have rules relating to pornography, sharing of passwords as well as accessing age-inappropriate sites, accounting for 68.3 percent, 59.0 percent and 55.4 percent respectively. Fewer households that had established rules on online activities, had established rules about sexting and cyber bullying, accounting for 44 percent and 34 percent respectively.

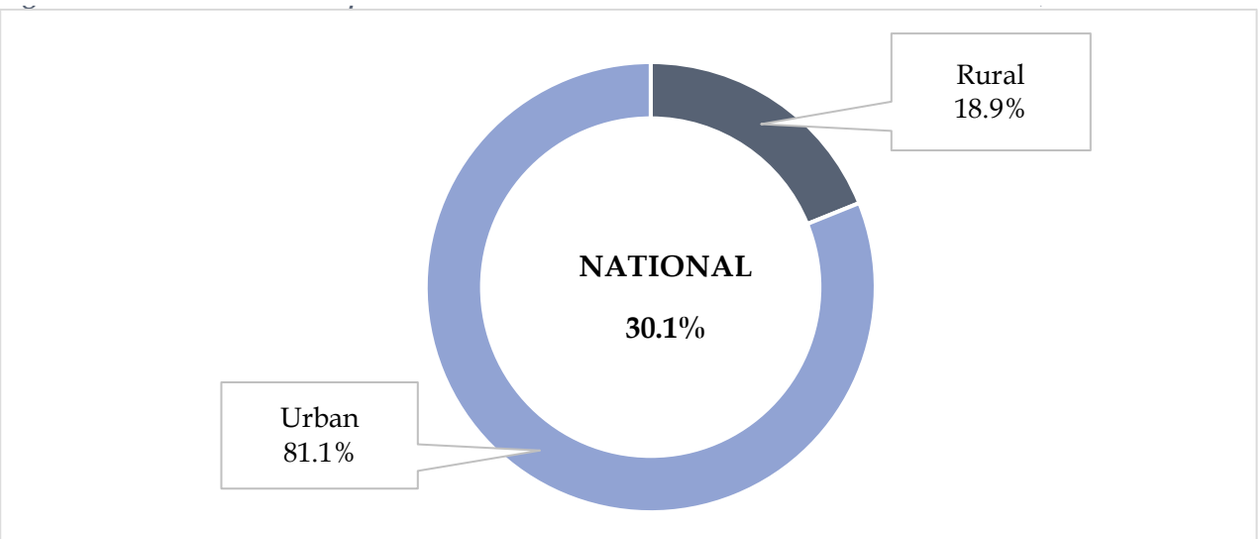
Figure 119: Types of established rules on how to use the internet by households; 2018



4.1.6. Education on the Risks Associated with Internet

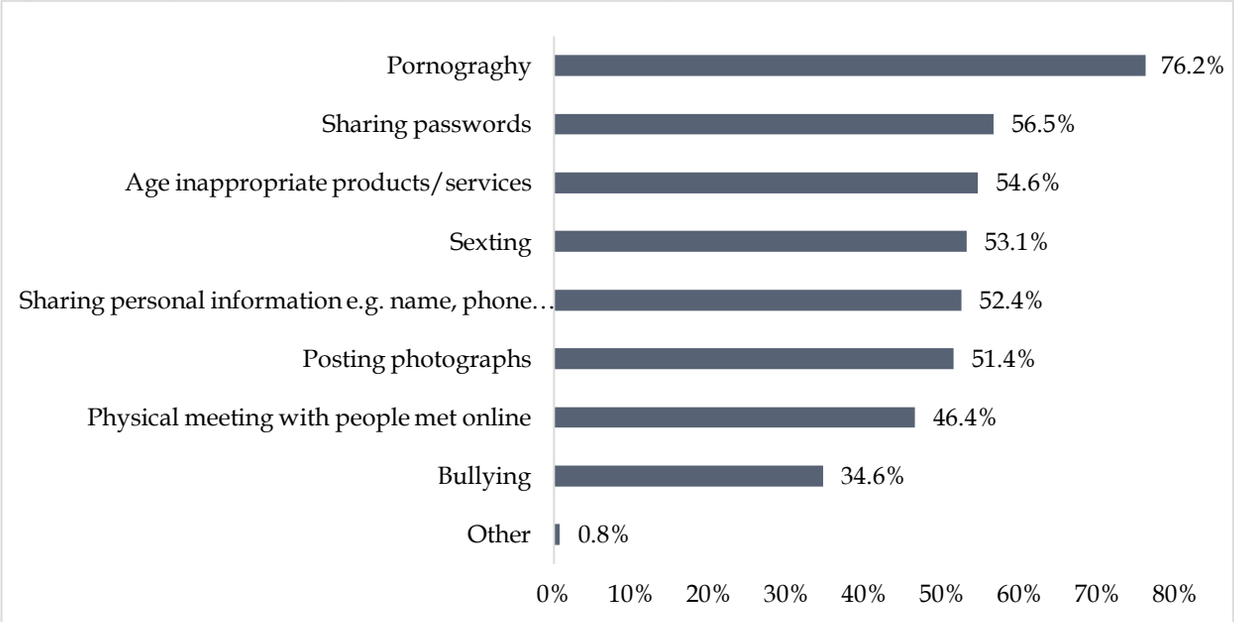
It was established that 30.1 percent of the households that had access to the internet have some form of education provided by some member of the household to other members on the risks associated with the online environment. The majority of these households were based in urban areas accounting for 81.1 percent of the total number of households that had access to the internet have some form of education provided by some member of the household to other members on the risks associated with the online environment.

Figure 120: Households that provide education on online risks to household members; 2018



Most of the households that had access to the internet and have some form of education provided by some member of the household on the risks associated with the online environment, discuss topics relating to pornography and sharing of passwords accounting for 76.2 percent of the total and 56.5 percent of the total respectively. There were fewer households that discussed bullying as a risk associated with being online accounting for 34.6 percent of the total.

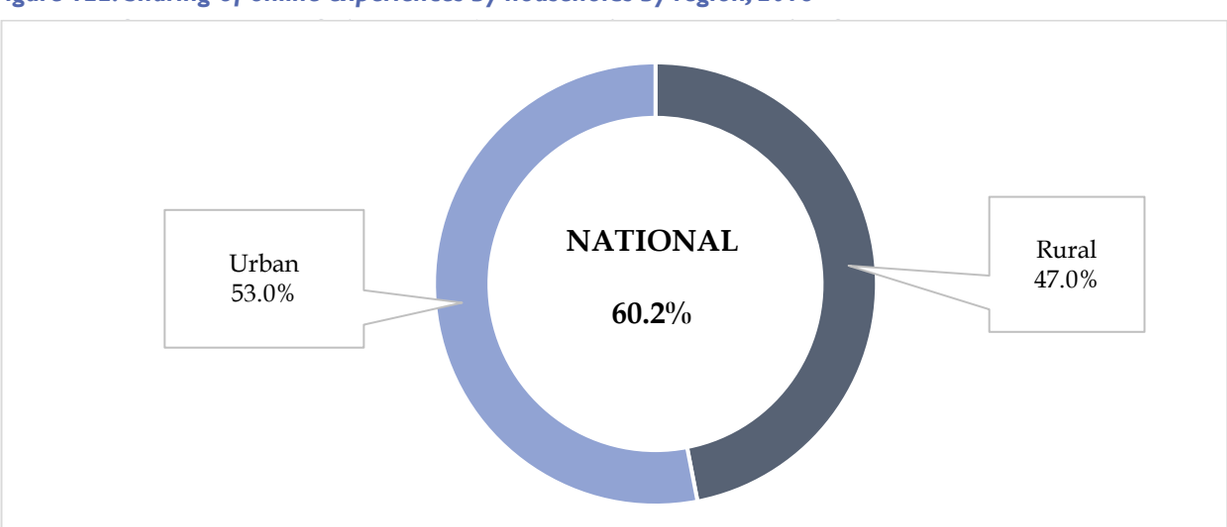
Figure 121: Topics covered by households on the risks of the online environment; 2018



4.1.7. Sharing of Online Experiences by Households

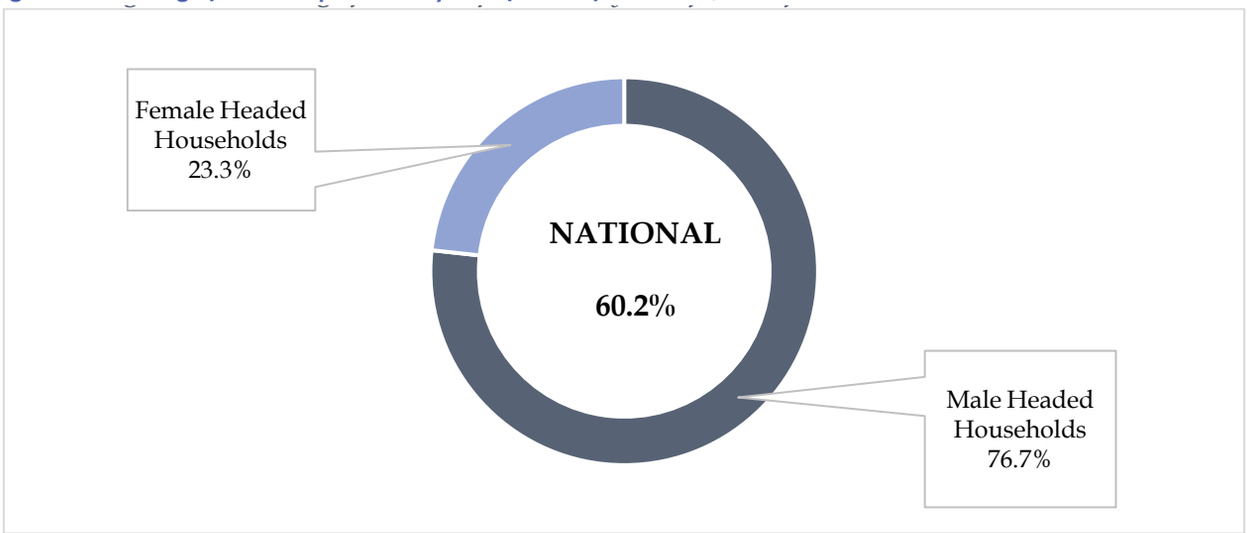
The survey revealed that a sizeable proportion of households with access to the internet shared their experiences online with other members of their household. Specifically, 60.2 percent of the households across the country were estimated to share experiences about their online experiences within the households. This proportion constituted 53 percent of households based in urban areas and 47 percent of households based in rural areas.

Figure 122: Sharing of online experiences by households by region; 2018



The households headed by males accounted for the largest proportion of the households with access to the internet and whose members share their experiences online within the household. Specifically, 76.7 percent of the households with access to the internet and whose members share their experiences online within the household were headed by males.

Figure 123: Sharing of online experiences by sex of head of household; 2018

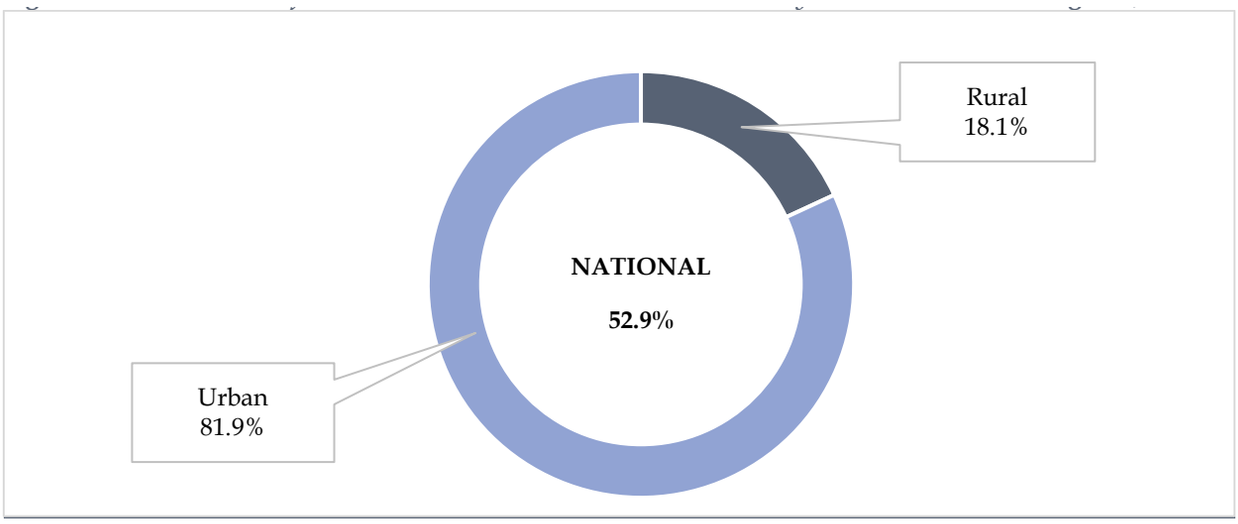


4.2. Online Risks, Incidents and Mitigation by Individuals

4.2.1. Awareness of Risks Associated with Online Activities

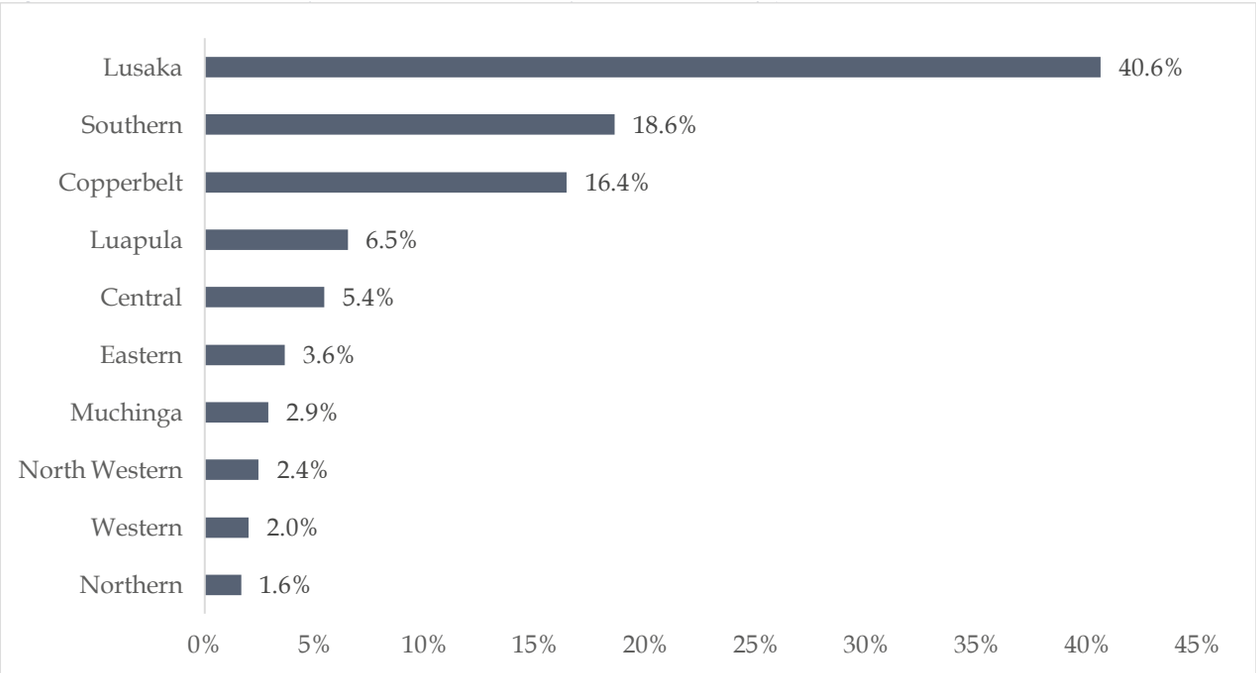
The survey estimated the proportion of individuals aged 10 years and older across the country with access to the internet that were aware of the risks associated with online activities at 52.9 percent. The majority of the individuals aged 10 years and older that were aware of the risks associated with being online were based in urban areas accounting for 81.9 percent of the total number of individuals aged 10 years and older across the country with access to the internet that were aware of the risks associated with online activities.

Figure 124: Awareness of risks associated with online activities by individuals across regions; 2018



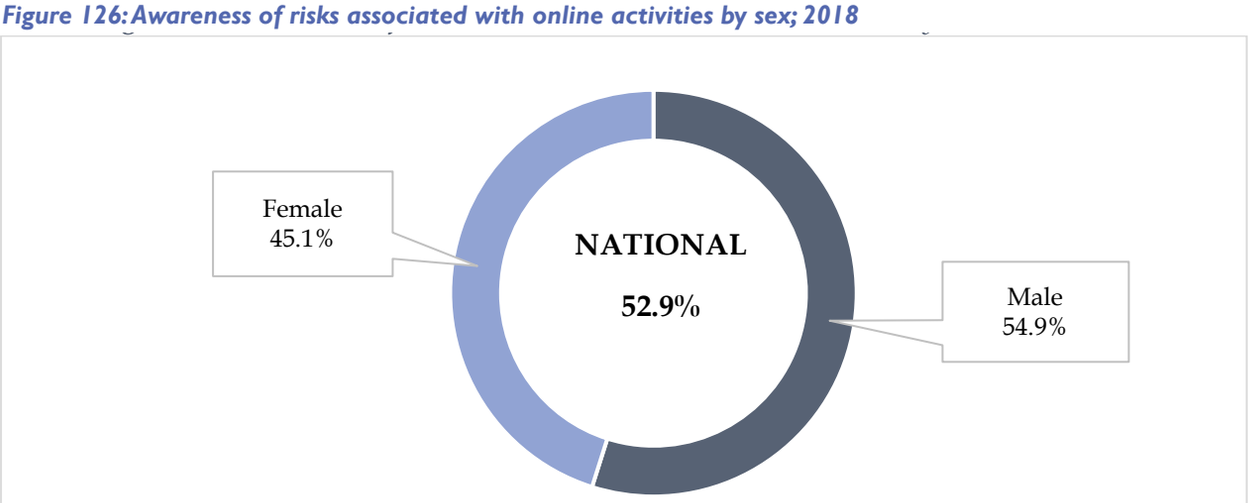
The highest proportion of individuals aged 10 years and older across the country that were aware of the risks associated with online activities were based in Lusaka, Copperbelt and Southern Provinces accounting for 40.6 percent, 18.6 percent and 16.4 percent respectively. Northern Province accounted for the lowest proportion of individuals aged 10 years and older that were aware about the risks associated with online activities constituting 1.6 percent.

Figure 125: Distribution of individuals aware of online risks by province; 2018



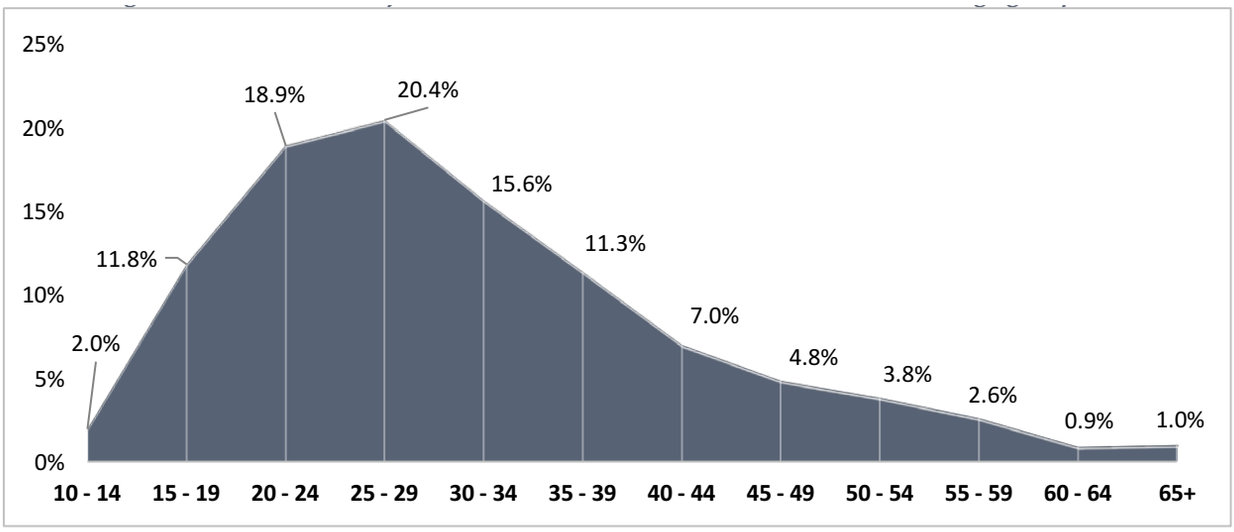
The majority of individuals aged 10 years and older that had access to internet services and were aware of the risks associated with online activities were male. These accounted for 54.9 percent of the individuals that had access to internet services and were aware of risks associated with online activities while the females accounted for 45.1 per cent.

Figure 126: Awareness of risks associated with online activities by sex; 2018



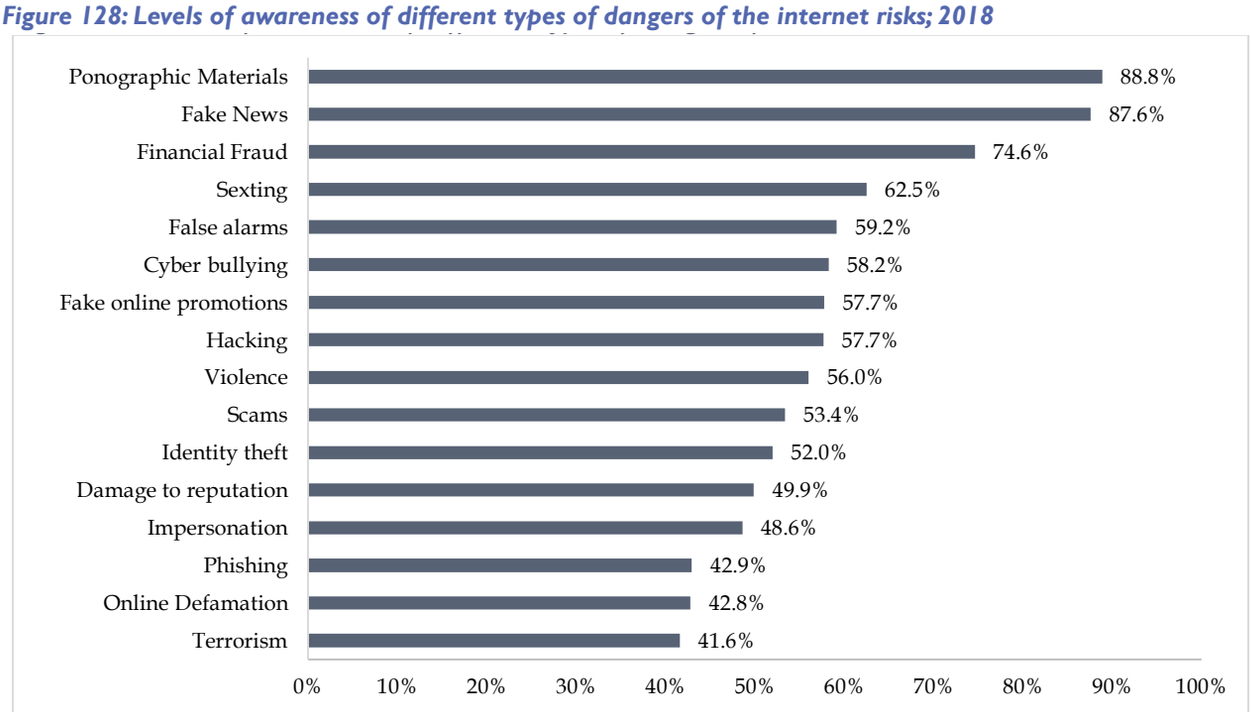
the survey established that the majority of individuals aged 10 years and older that had access to internet services and were aware about risks associated with online activities were young. Specifically 68.7 percent of the internet users that indicated that they were aware of risks associated with online activities were below the age of 35 years. Less than 10 percent of the internet users that had access to internet services and were aware about risks associated with online activities were above the age of 50 years.

Figure 127: Awareness of risks associated with online activities across age groups; 2018



The most prevalent known risks among the individuals aged 10 years and older that reported awareness about the risks associated with online activities were pornographic material, fake news and financial fraud accounting for 88.8 percent, 87.6 percent and 74.6 percent of the total number of internet users that indicated that they were aware of the risks associated with online activities respectively. Risks associated with terrorism, online defamation and phishing were relatively less prevalently known among individuals aged 10 years and older that reported to be aware of risks associated with online activities.

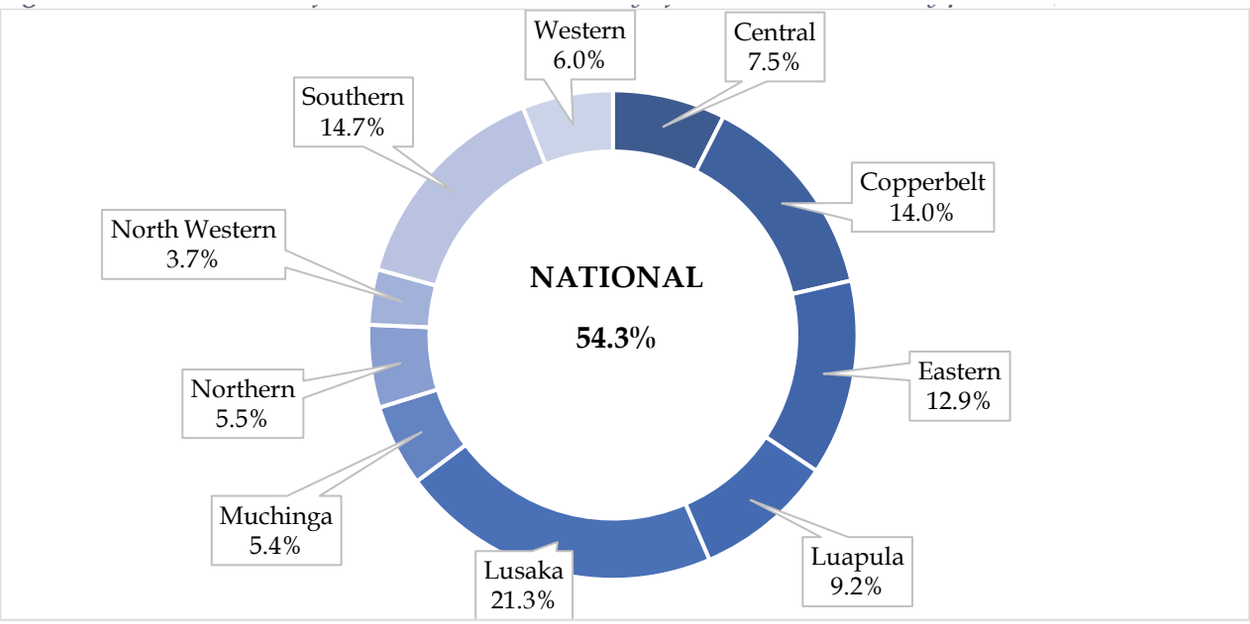
Figure 128: Levels of awareness of different types of dangers of the internet risks; 2018



4.2.2. Production, Possession or Circulation of Obscene Materials

The levels of awareness among individuals aged 10 years and older on the criminality of production, possession or circulation of obscene materials in Zambia was relatively low. Only 54.3 percent of the people aged 10 years and older were aware that it was a crime to produce, poses or circulate obscene material in Zambia. The majority of individuals aged 10 years and older aware of the criminality were based in Lusaka, Southern and Copperbelt Provinces accounting for 21.3 percent, 14.7 percent and 14 percent respectively.

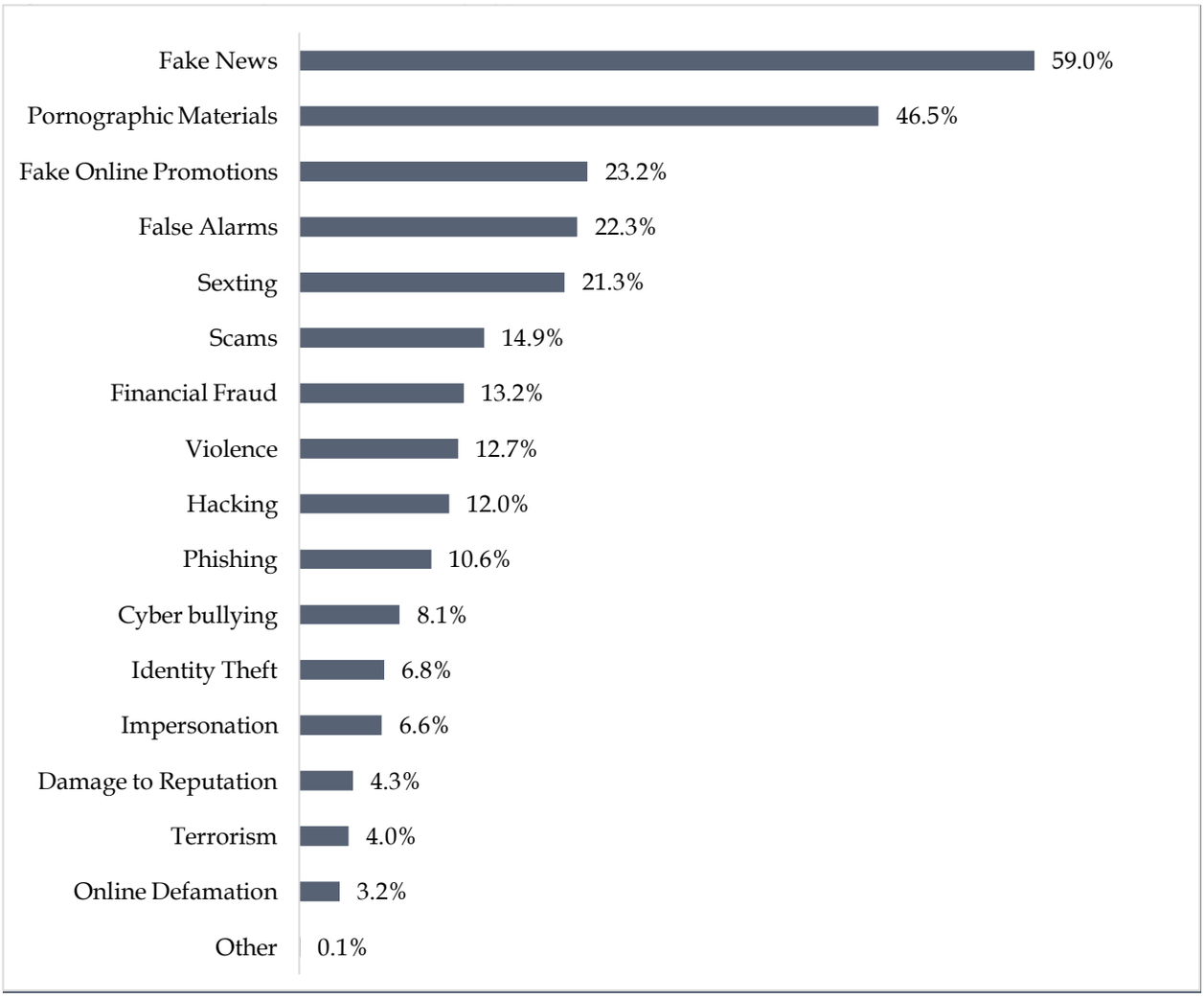
Figure 129: Distribution of awareness on criminality of obscene materials by province; 2018



4.2.3. Incidence of Risks Associated with Online Activities

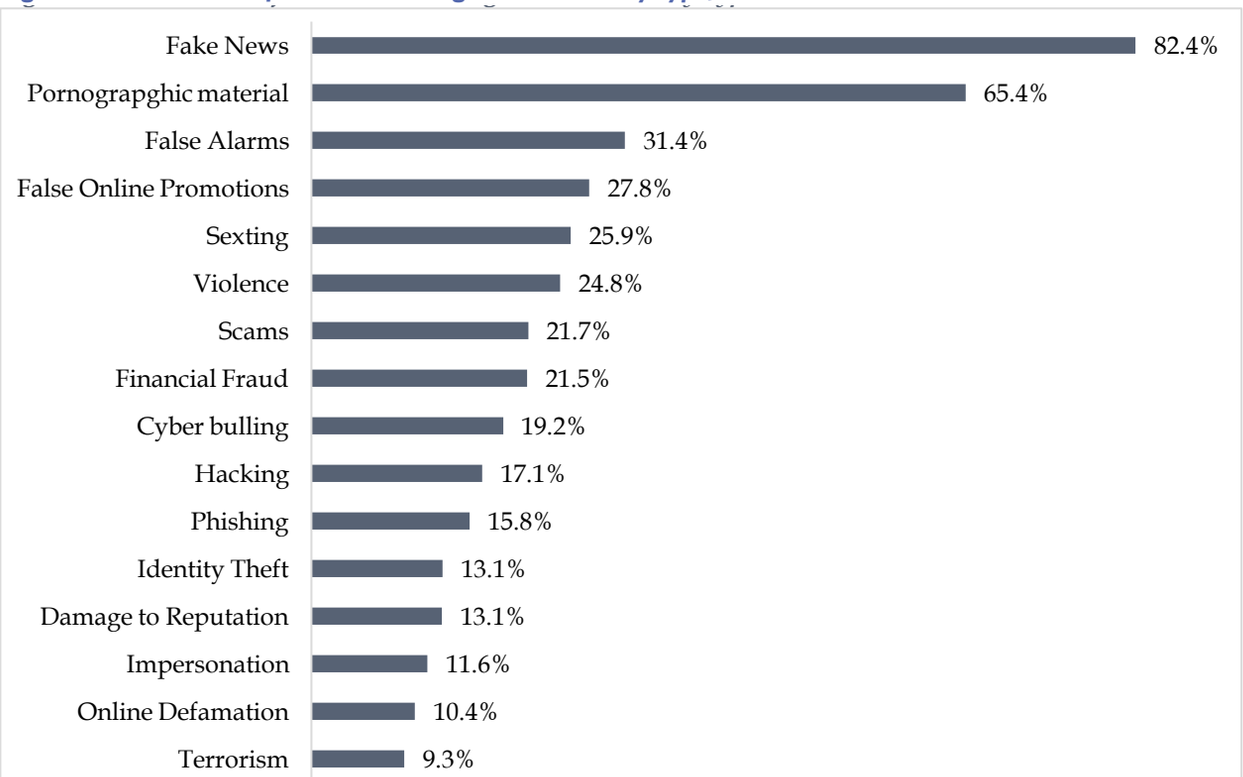
The incidence of fake news and pornographic material were reported to be the most prevalent risks that users of internet services encountered while online, accounting for 59.0 percent and 46.5 percent respectively, of the total number of users of internet services that reported that they encountered identified risks while online. Online defamation and terrorism were reportedly, relatively less prevalent incidents among users of internet services in Zambia.

Figure 130: Incidence of internet risks by type; 2018



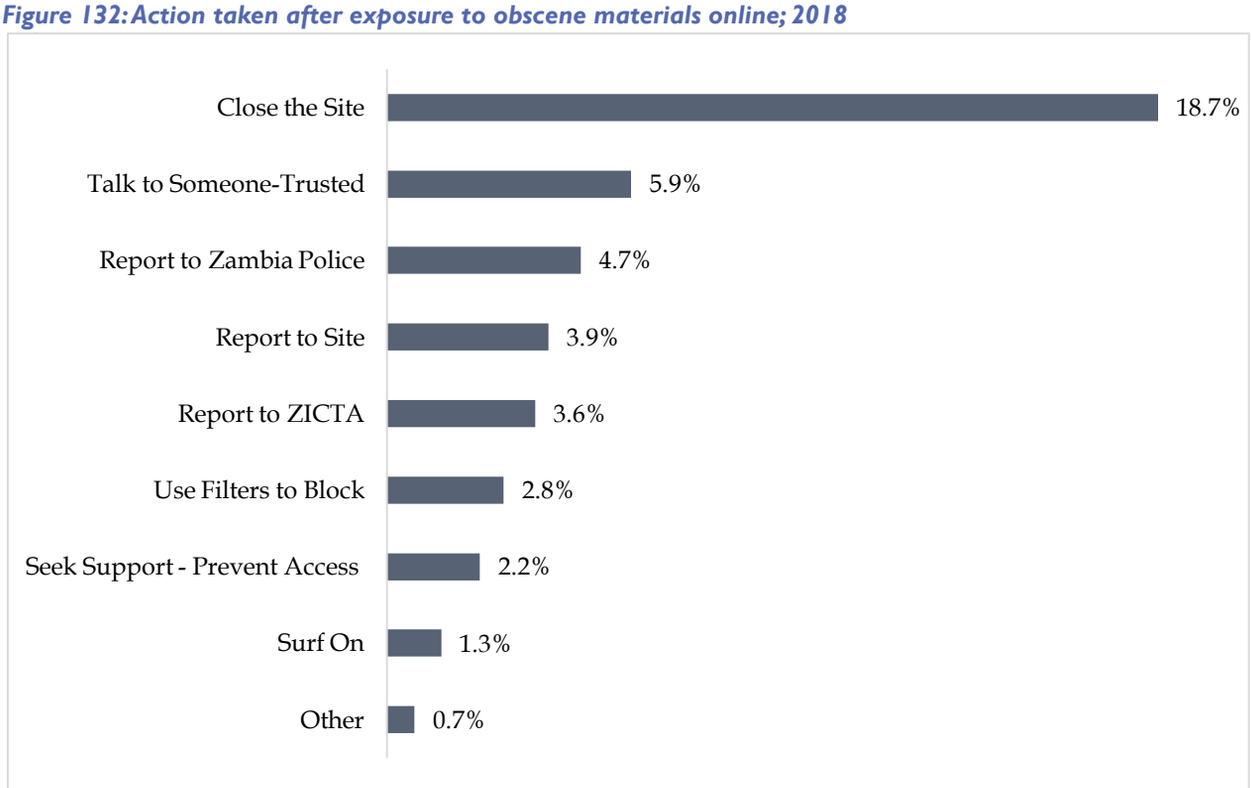
Exposure to fake news and pornography were the most prevalent incidents that individuals aged 10 years and older reported to encounter while using social media. Specifically, 82.2 percent of the individuals aged 10 years and older that indicated that they were aware of the risks associated with using the internet and had encountered incidents while using social media had experiences related to exposure to fake news, while 65.4 percent had incidents related to pornography. On the other hand, terrorism and online defamation were relatively less extensively experienced by individuals aged 10 years and older who were exposed to risks associated with online activities while using their social media account constituting 9.3 percent and 10.4 percent respectively.

Figure 131: Incidence of risks while using social media by type; 2018



The escalation of cases through channels of reporting by users of the internet that were exposed to obscene materials on the internet was relatively low. The majority of people that were exposed to obscene material such as pornography closed the site. On the other hand, only 3.9 percent of the people aged 10 years and older that were exposed to obscene materials reported to the site while only 2.8 percent applied filters to block the sites.

Figure 132: Action taken after exposure to obscene materials online; 2018

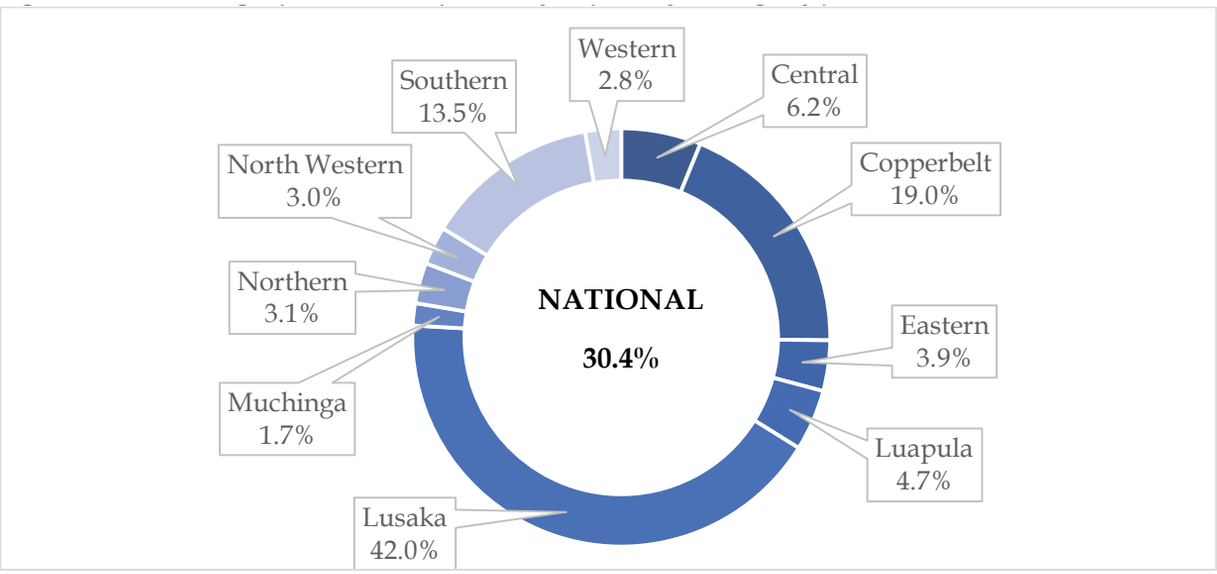


4.3. Mitigation Strategies against Online Risks

4.3.1. Activation of Security and Privacy Settings

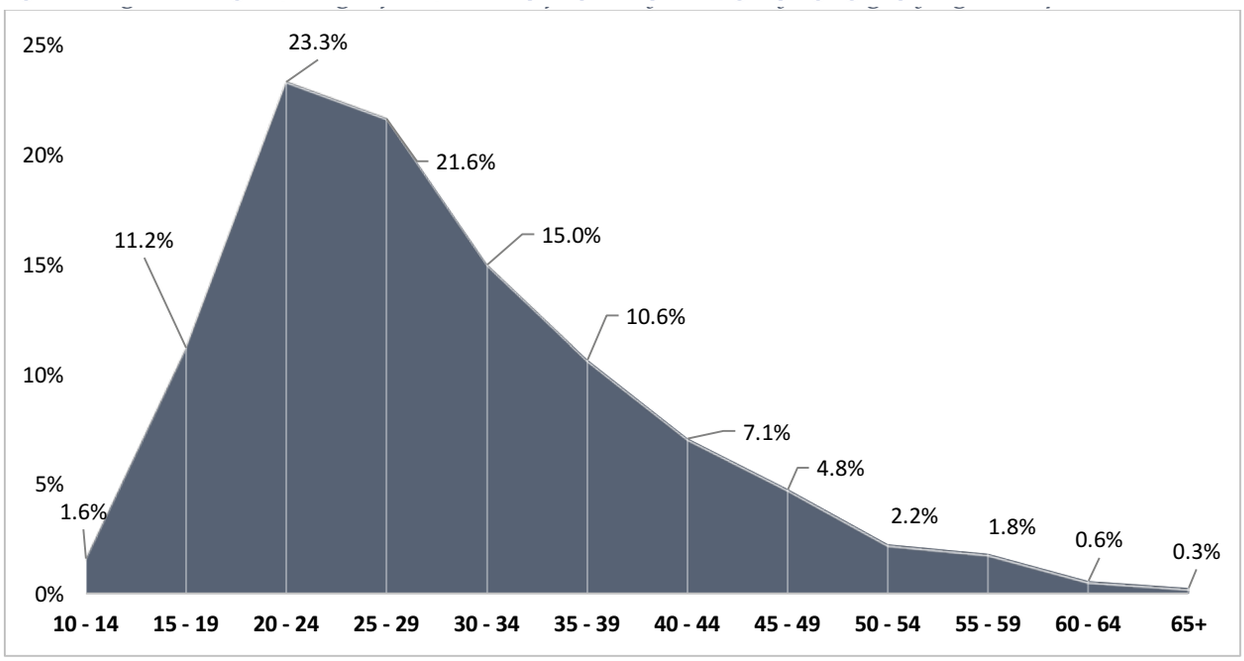
The survey revealed that only 30.4 percent of the individuals aged 10 years and older that use internet services know how to activate security or privacy settings on social media or a web browser. More than 60 percent of this proportion were based in Lusaka and Copperbelt Provinces. Muchinga and Western Provinces accounted for the lowest proportions amounting 1.7 percent and 2.8 percent respectively.

Figure 133: Knowledge of activation of security or privacy settings by province; 2018



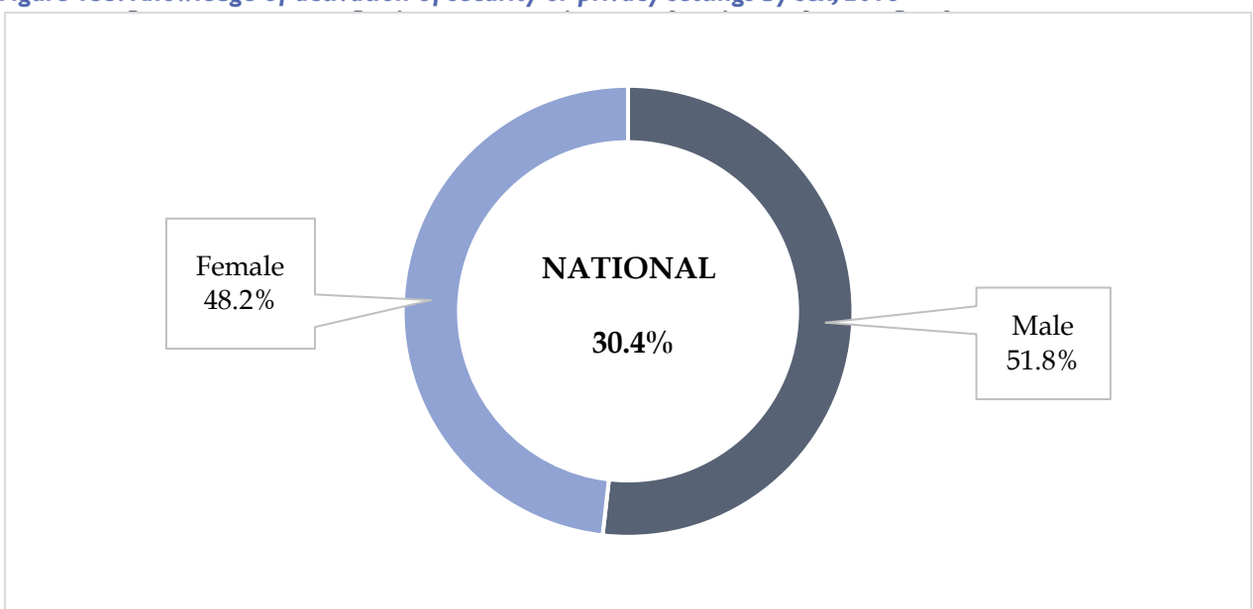
More than 70 percent of the individuals aged 10 years and older with access to the internet that had knowledge of how to activate security and privacy settings in a web browser or social media account were below the age of 35 years.

Figure 134: Knowledge of activation of security or privacy settings by age groups; 2018

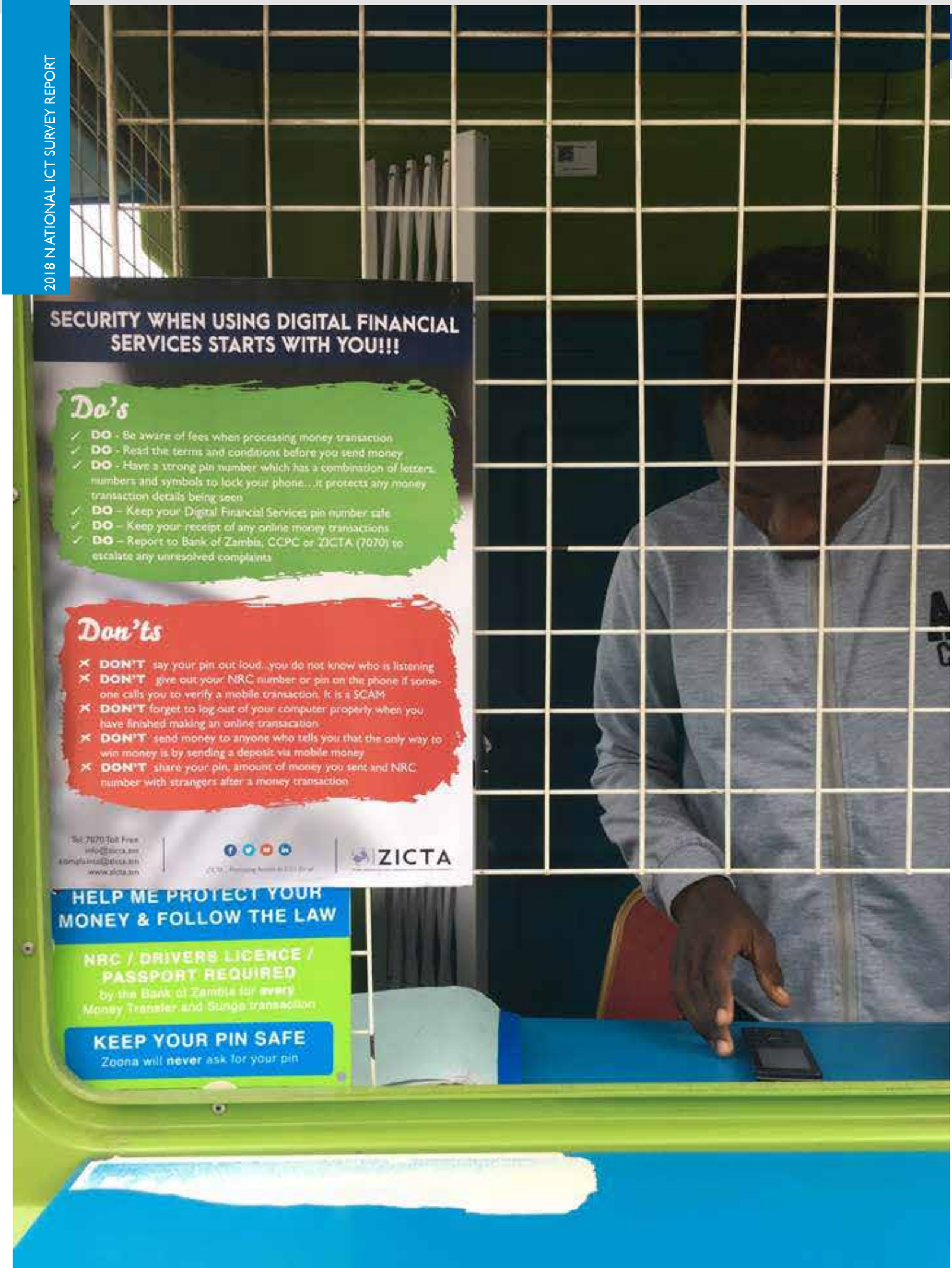


there was a minimal observed difference between male and female individuals aged 10 years and older that had access to the internet and had knowledge about how to activate security and privacy settings in a web browser or social media account. Specifically, the proportion of internet users with knowledge on how to activate security and privacy settings who were male was 51.8 percent and the females were 48.2 percent.

Figure 135: Knowledge of activation of security or privacy settings by sex; 2018



5.0. Access and Usage of Digital Financial Services


SECURITY WHEN USING DIGITAL FINANCIAL SERVICES STARTS WITH YOU!!!
Do's
✓ DO - Be aware of fees when processing money transaction
✓ DO - Read the terms and conditions before you send money
✓ DO - Have a strong pin number which has a combination of letters, numbers and symbols to lock your phone....it protects any money transaction details being seen
✓ DO – Keep your Digital Financial Services pin number safe
✓ DO – Keep your receipt of any online money transactions
✓ DO – Report to Bank of Zambia, CCPC or ZICTA (7070) to escalate any unresolved complaints
Don'ts
✕ DON'T say your pin out loud. you do not know who is listening
✕ DON'T give out your NRC number or pin on the phone if someone calls you to verify a mobile transaction. It is a SCAM
✕ DON'T forget to log out of your computer properly when you have finished making an online transaction
✕ DON'T send money to anyone who tells you that the only way to win money is by sending a deposit via mobile money
✕ DON'T share your pin, amount of money you sent and NRC number with strangers after a money transaction
Tel: 7070 Toll Free
info@zicta.zm
complaints@zicta.zm
www.zicta.zm
ZICTA
HELP ME PROTECT YOUR MONEY & FOLLOW THE LAW
NRC / DRIVERS LICENCE / PASSPORT REQUIRED
by the Bank of Zambia for every Money Transfer and Sunga transaction
KEEP YOUR PIN SAFE
Zoona will never ask for your pin

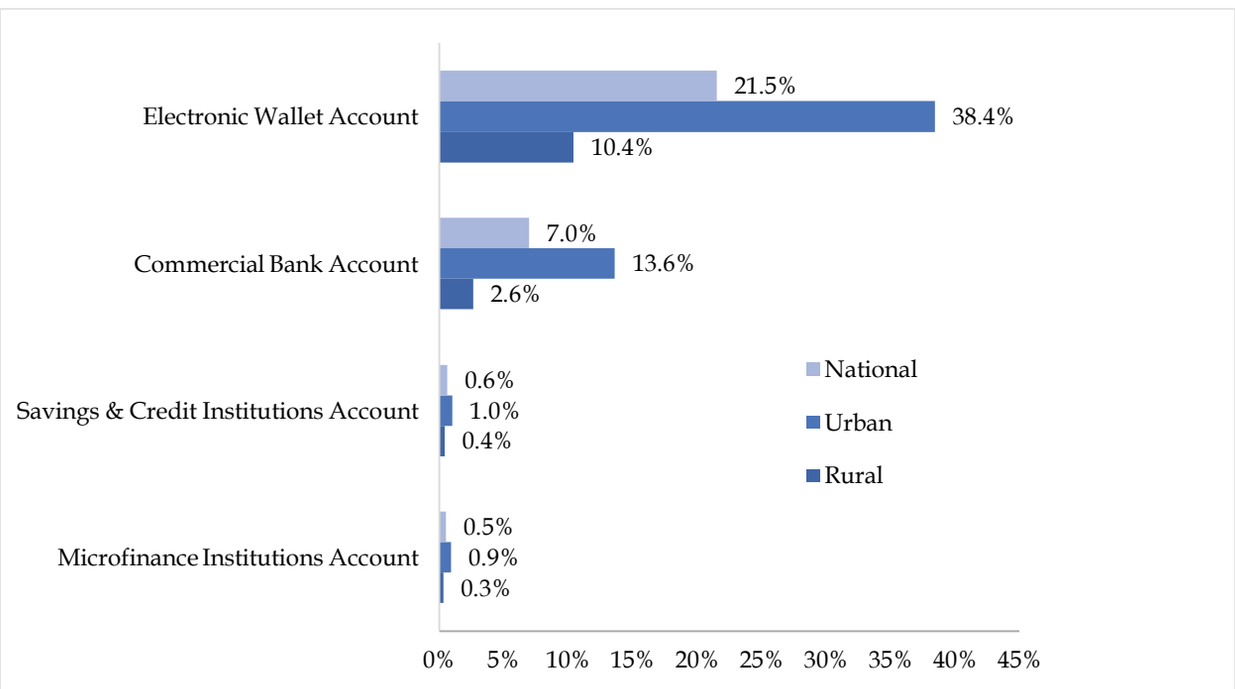
5.0. Access and Usage of Digital Financial Services

This chapter explores the extent of adoption of digital financial services by households and individuals aged 10 years and older. An evaluation is made within various demographic and socio-economic groupings and across the strata regarding various attributes related to digital financial services. To the extent possible, an attempt is made to explain some of the factors that inhibit extensive adoption and usage of digital financial services in the country. The chapter also highlights some of the most widely adopted services and preferred providers with a view to establish the responsiveness of providers to households' and individuals' needs.

5.1. Ownership of Different Types of Accounts

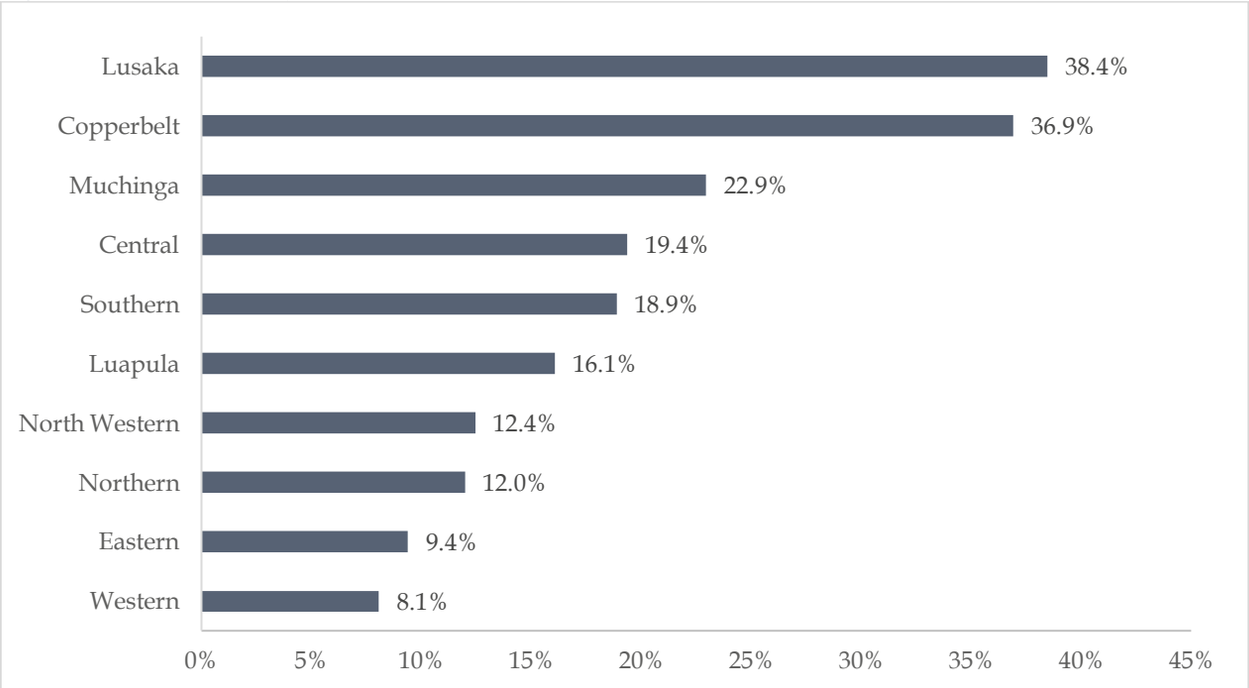
The survey revealed that the most widely held formal financial services accounts were electronic wallets (e-wallets) accounting for 21.5 percent of individuals aged 10 years and older. Only 7 percent of the individuals aged 10 years and older held at least one commercial bank account. Ownership of accounts with Micro Finance institutions as well as Savings and Credit Institutions was negligible accounting for about 1 percent all the individuals aged 10 years and older. There were sizeable differences observed in the ownership of the different accounts across regions. Particularly, while 38.4 percent of all the individuals aged 10 years and older based in urban areas owned an e-wallet, only 10.4 percent of e-wallet holders were in rural areas.

Figure 136: Ownership of different types of accounts by individuals; 2018



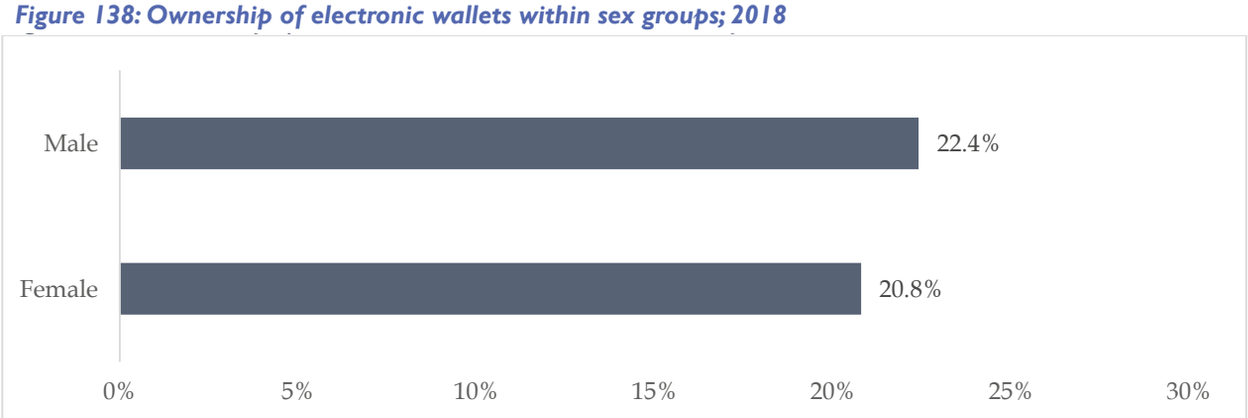
Lusaka and Copperbelt Provinces had the highest concentration of e-wallets for individuals aged 10 years and older accounting for 38.4 percent and 36.9 percent respectively. On the other hand, Western and Eastern Provinces accounted for the lowest concentration of e-wallet accounts for individuals aged 10 years and older accounting for 8.1 percent and 9.4 percent respectively.

Figure 137: Ownership of electronic -wallets within provinces; 2018



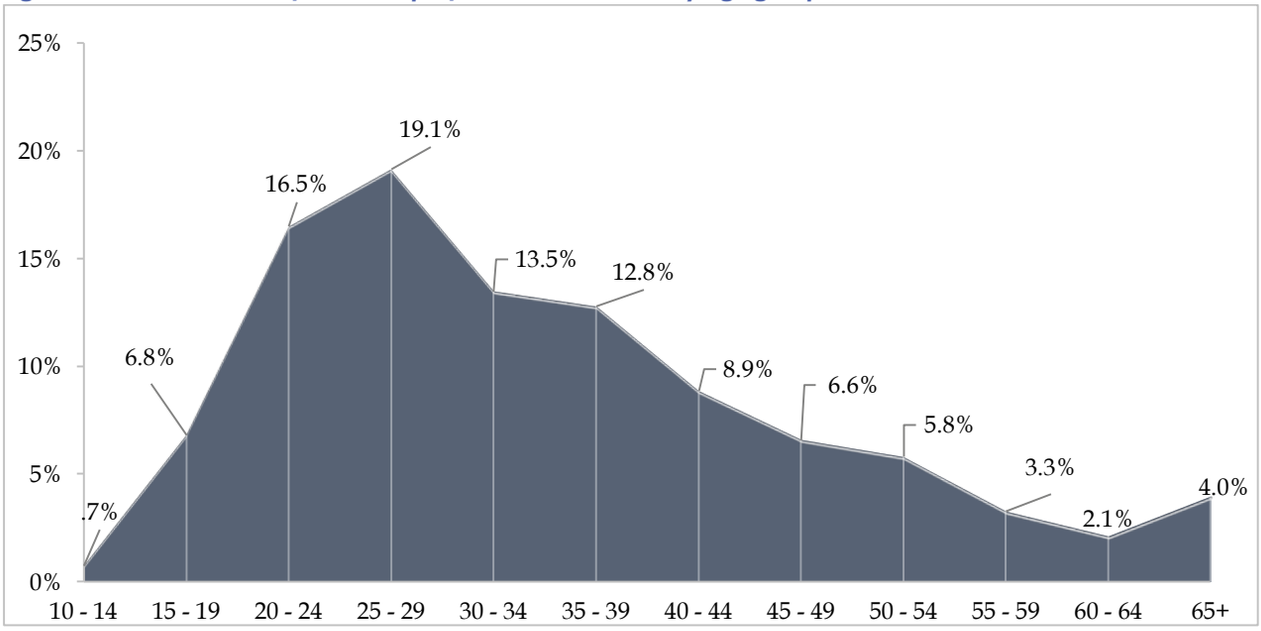
There were negligible differences in ownership of e-wallets between males and females in the country. However both sex groups accounted for very low levels of ownership of e-wallets constituting 22.4 percent and 20.8 percent for males and females respectively.

Figure 138: Ownership of electronic wallets within sex groups; 2018



the survey estimated that about 70 percent of the individuals aged 10 years and older that owned an e-wallet account were below the age of 35 years. Less than 10 percent of the individuals aged 10 years and older that indicated that they owned an e-wallet were above the age of 55 years.

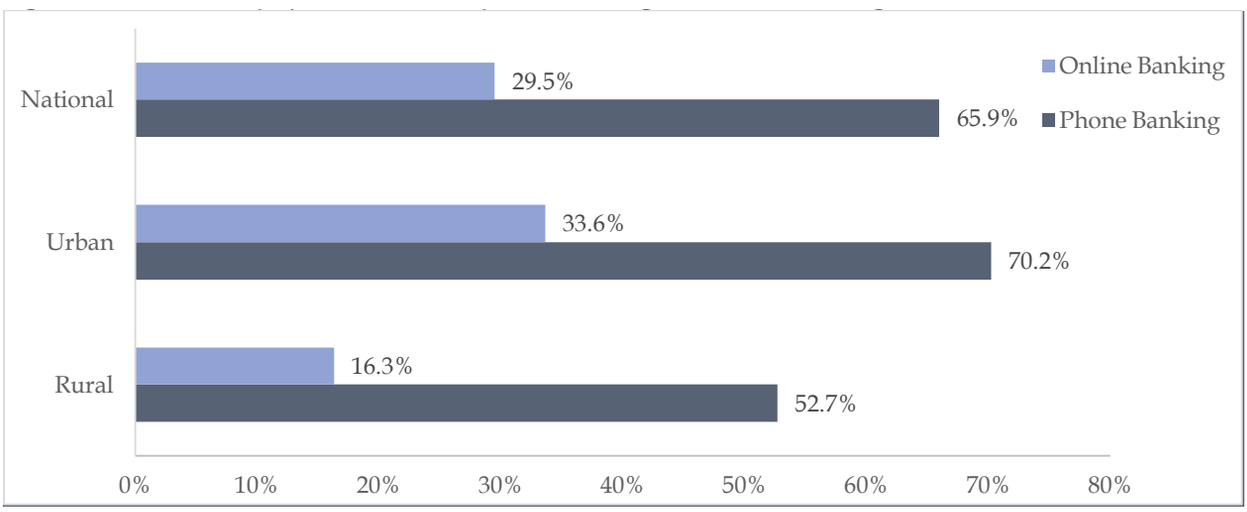
Figure 139: Distribution of ownership of electronic wallets by age groups; 2018



5.1.1. Phone Banking Services and Online Banking Services

The majority of commercial bank accounts held by individuals aged 10 years and older were enabled for phone banking services accounting for 65.9 percent of all the individuals aged 10 years and older that reported to own a commercial bank account. On the other hand, only 29.5 percent of the individuals aged 10 years and older that indicated that they owned a commercial bank account had their accounts enabled for online (internet) banking services. There was a relatively larger proportion of individuals aged 10 years and older with accounts that were enabled for either online banking or phone banking services that were based in urban areas compared to rural areas.

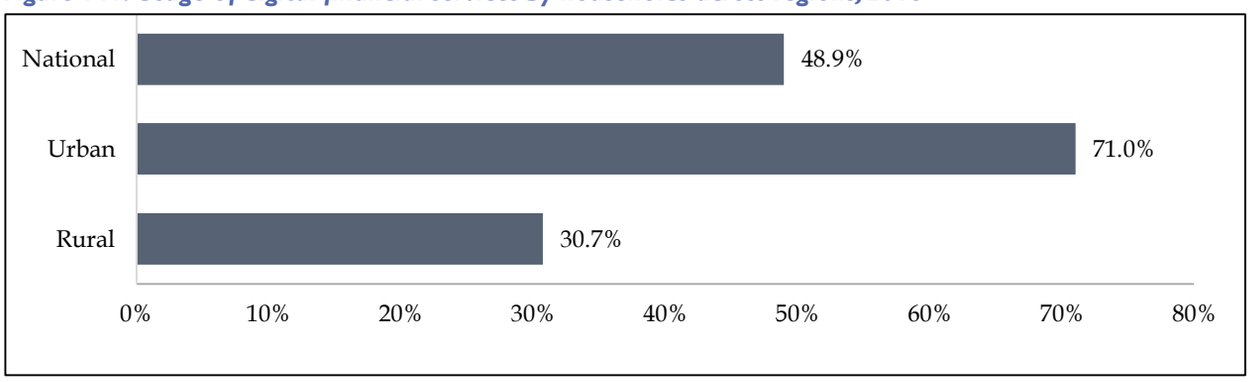
Figure 140: Ownership of accounts with phone banking and online banking services; 2018



5.2. Usage of Digital Financial Services by Households

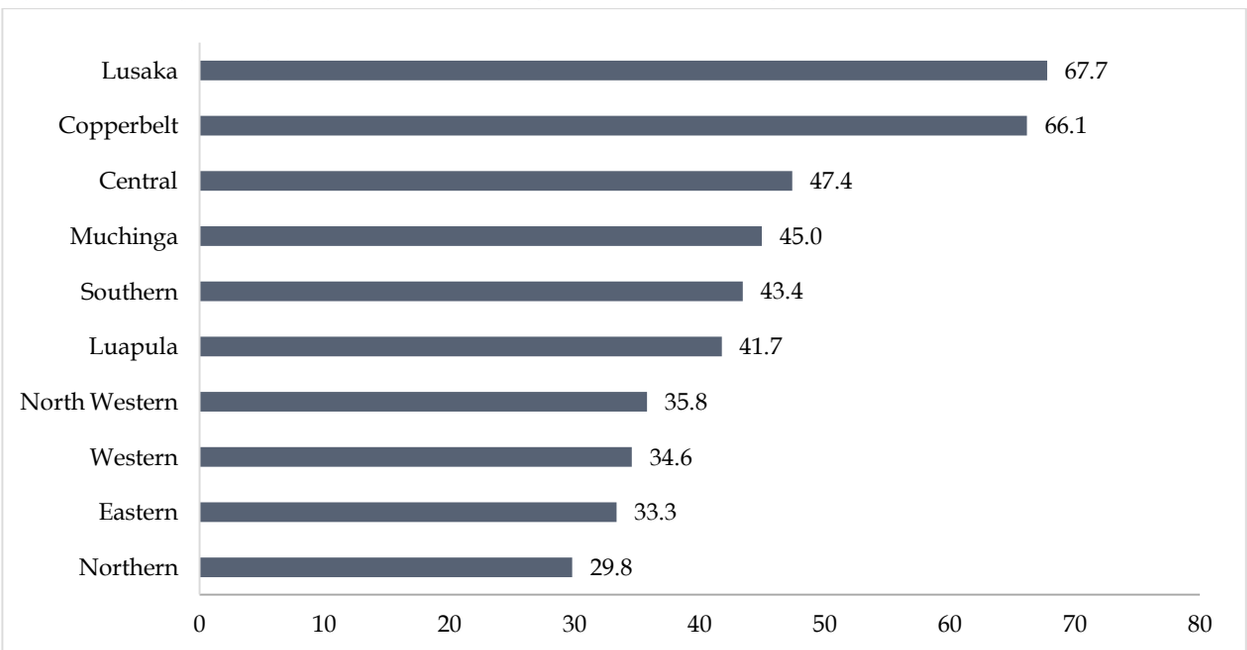
The survey established that at least 48.9 percent of all the households across the country had used digital financial services before. However, the proportion of households in urban areas that had used digital financial services was relatively higher than in rural areas. Specifically, 71.0 percent of the households in urban areas indicated that they had used digital financial services before while only 30.7 percent of households in rural areas reported that they had used digital financial services.

Figure 141: Usage of digital financial services by households across regions; 2018



Lusaka, Copperbelt and Central Provinces had a relatively higher proportion of households that had indicated that they used digital financial services constituting 67.7 percent, 66.1 percent and 47.4 percent respectively.

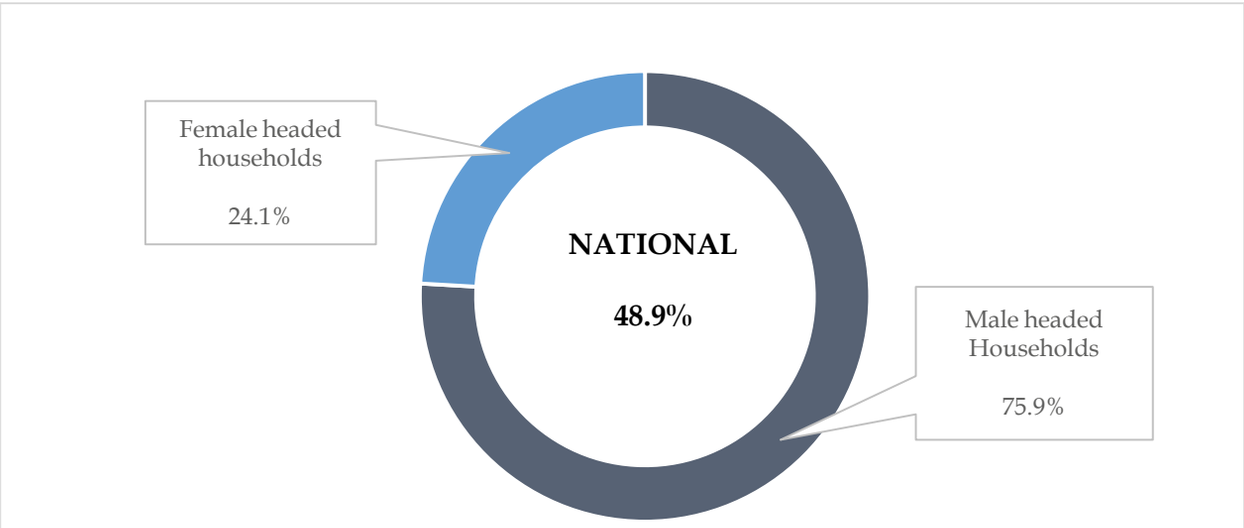
Figure 142: Usage of digital financial services by households across provinces; 2018



However, relatively lower levels of usage of digital financial services by households were observed in Northern, Eastern and Western Provinces accounting for 29.8 percent, 33.3 percent and 34.6 percent respectively.

The majority of the households that indicated that they had used digital financial services before, constiting 75.9 percent of the households that had used digital fincial services before, were headed by males.

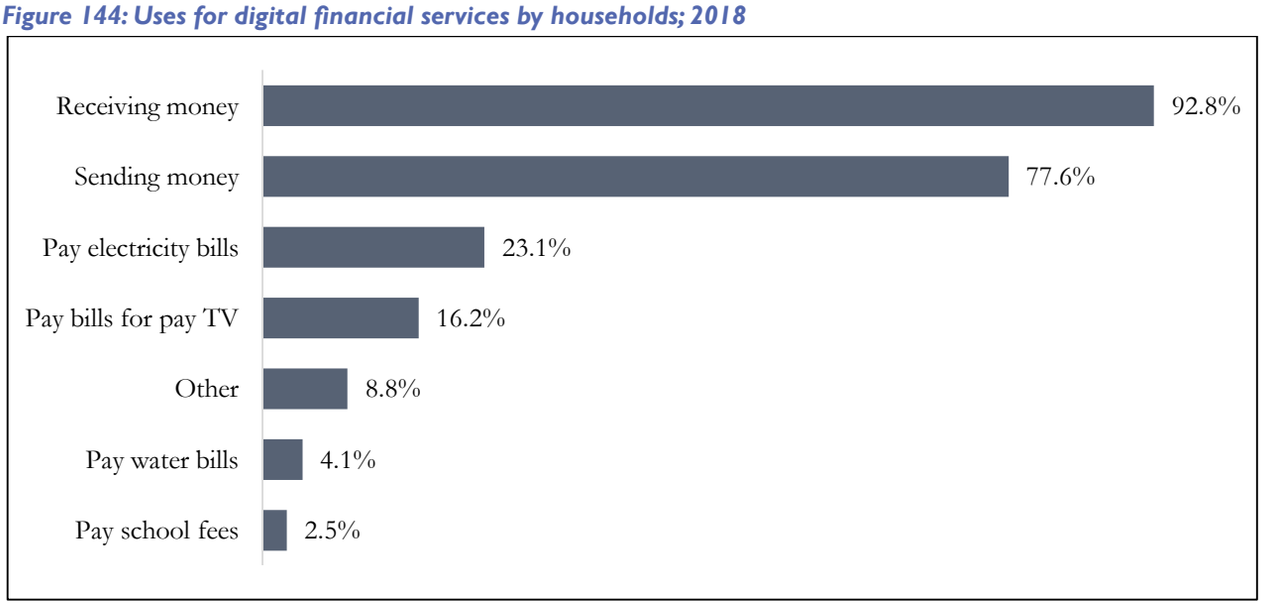
Figure 143: Usage of digital financial services by sex of head of household; 2018



5.3. Extent of Usage of Digital Financial Services by Households

The majority of the households reported using digital financial services for receiving and sending money representing 92.8 percent and 77.6 percent respectively. However, only 2.5 percent of the households that indicated that they used digital financial services for paying school fees while 4.1 percent of households reported they used them for paying water bills.

Figure 144: Uses for digital financial services by households; 2018

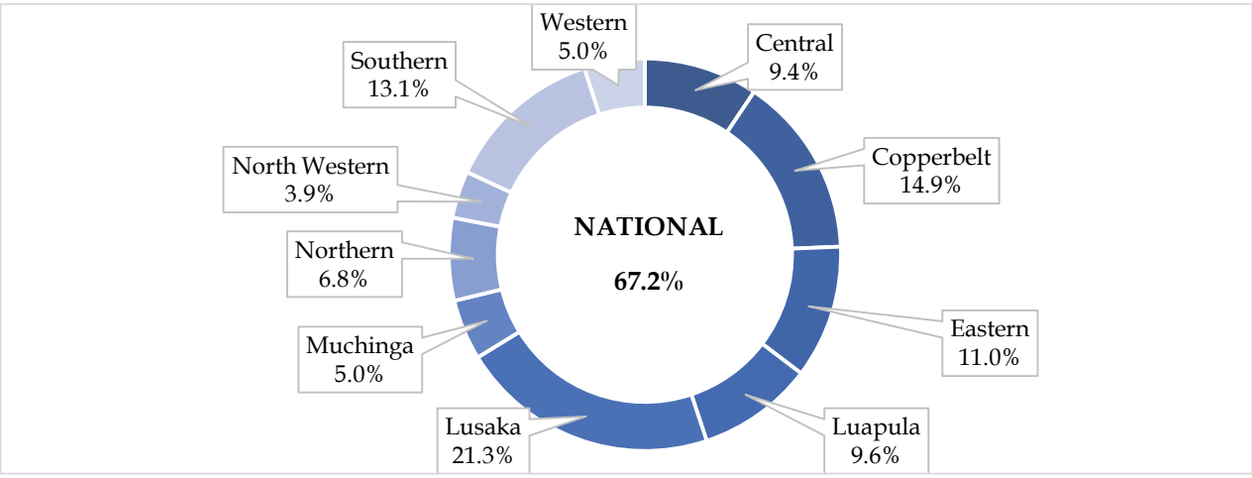


5.4. Access and Usage of Digital Financial Services by Individuals

5.4.1. Awareness of Digital Financial Services

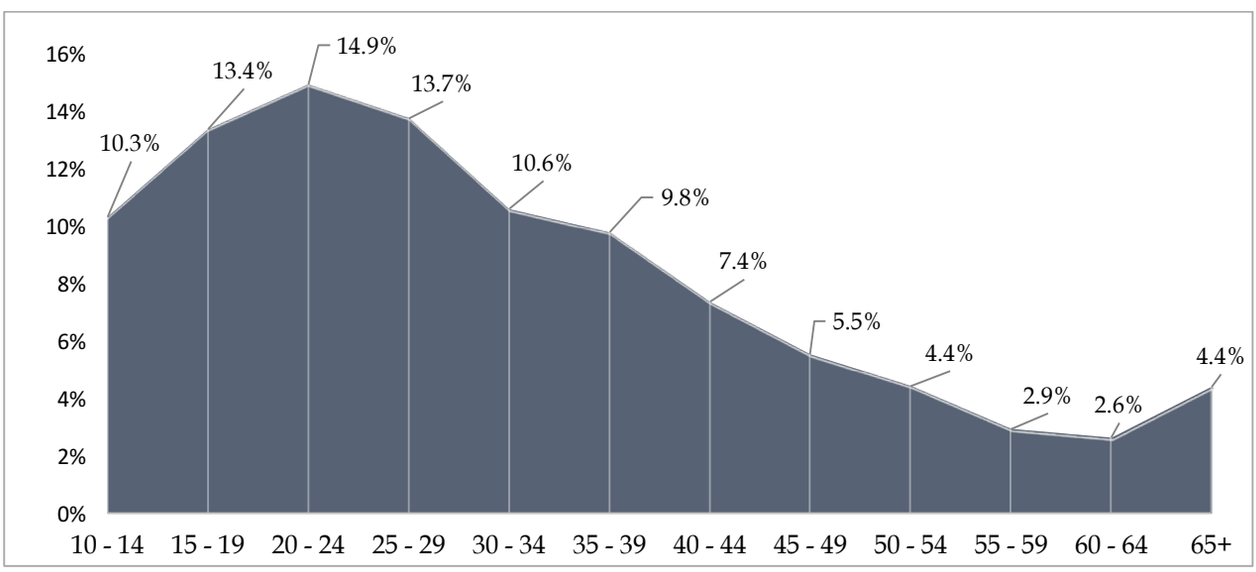
The level of awareness on the existence digital financial services currently on offer in Zambia among all individuals aged 10 years and older was estimated at 67.2 percent. Lusaka, Copperbelt and Southern Provinces accounted for the largest proportion of individuals aged 10 years and older that were aware of the existence of digital financial services amounting 21.3 percent, 14.9 percent and 13.1 percent respectively.

Figure 145: Awareness of digital financial services by province; 2018



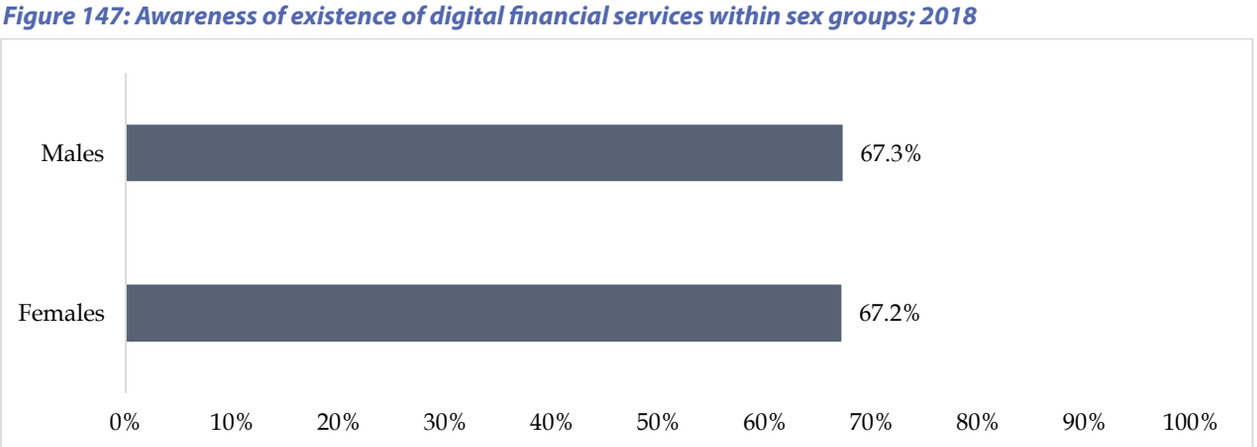
About 62.9 percent of the individuals aged 10 years and older that indicated that they were aware of the existence of digital financial services in Zambia were below the age of 35 years. Less than 10 percent of the people that indicated that they were aware about the existence of digital financial services in Zambia were above 55 years.

Figure 146: Distribution of individuals aware of the existence of digital financial services by age; 2018



There were negligible differences observed in the proportion of males and females that were aware of the existence of digital financial services in Zambia. Specifically, an equal proportion of approximately 67.0 percent of individuals aged 10 years and older within each sex group was aware of the existence of digital financial services offered in Zambia.

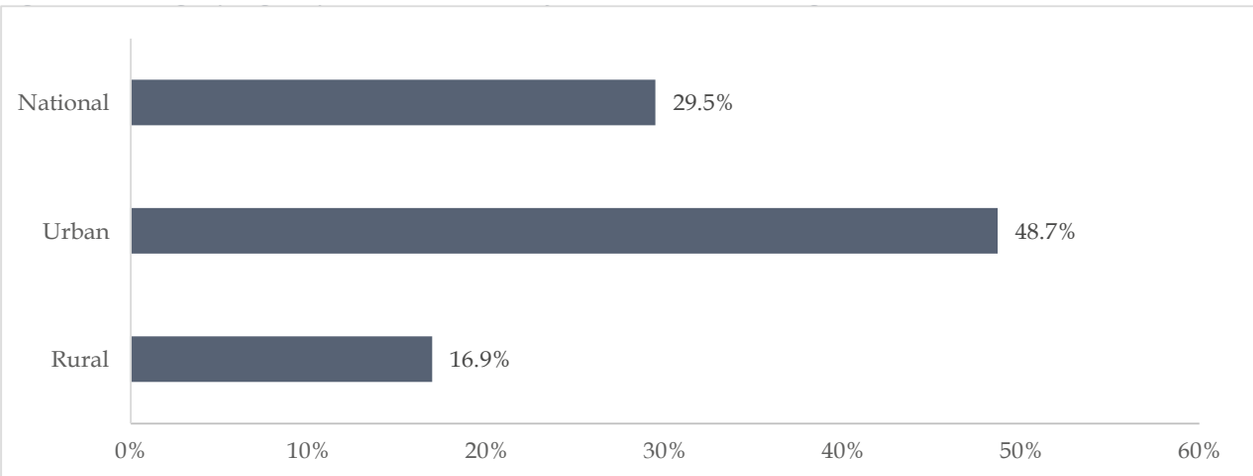
Figure 147: Awareness of existence of digital financial services within sex groups; 2018



5.4.2. Usage of Digital Financial Services

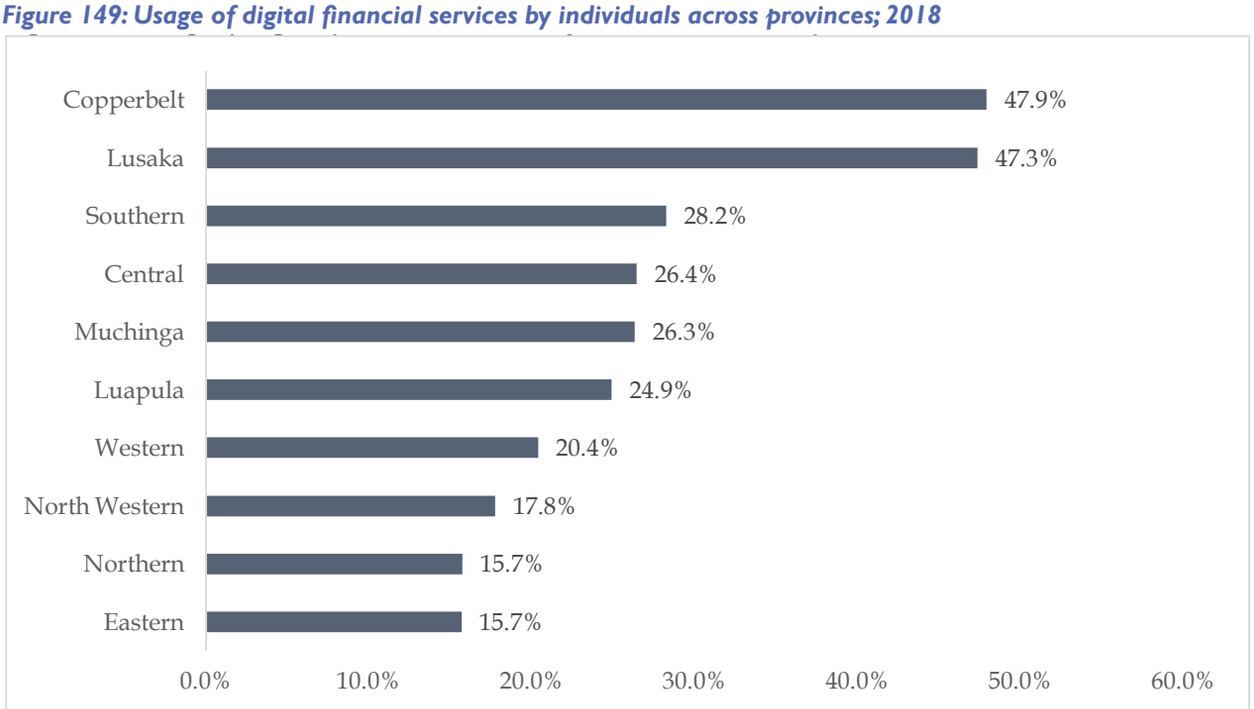
The survey estimated that about 29.5 percent of individuals aged 10 years and older in the country have transacted before using digital financial services. It was further observed that over 48.7 percent of the individuals aged 10 years and older based in urban areas had used digital financial services before while only 16.9 percent of individuals aged 10 years and older based in rural areas had used the services before.

Figure 148: Usage of digital financial services by individuals within regions; 2018



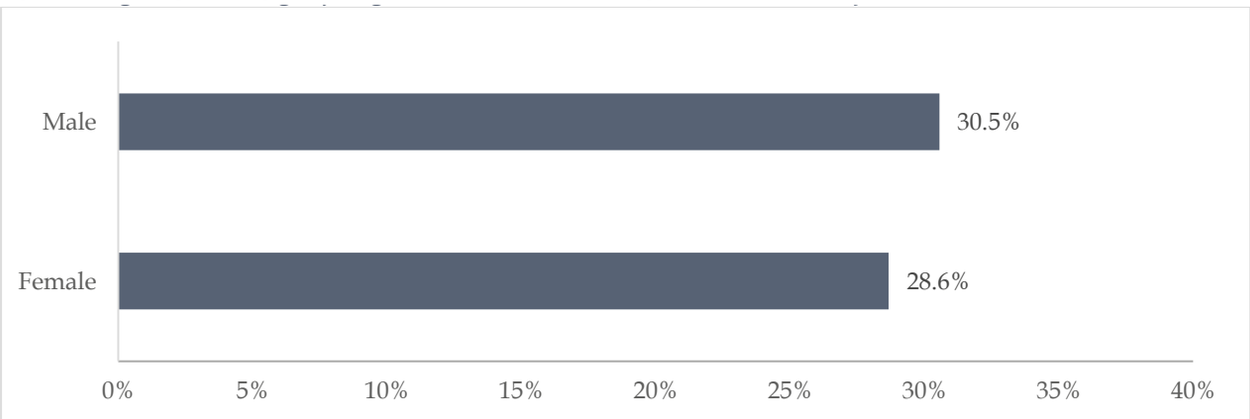
The Copperbelt, Lusaka and Southern Provinces had the highest concentration of individuals aged 10 years and older that had used digital financial services before. Specifically, 47.9 percent of individuals aged 10 years and older based in the Copperbelt Province indicated that they had used digital financial services before while Lusaka and Southern Provinces accounted for 47.3 percent and 28.2 percent respectively.

Figure 149: Usage of digital financial services by individuals across provinces; 2018



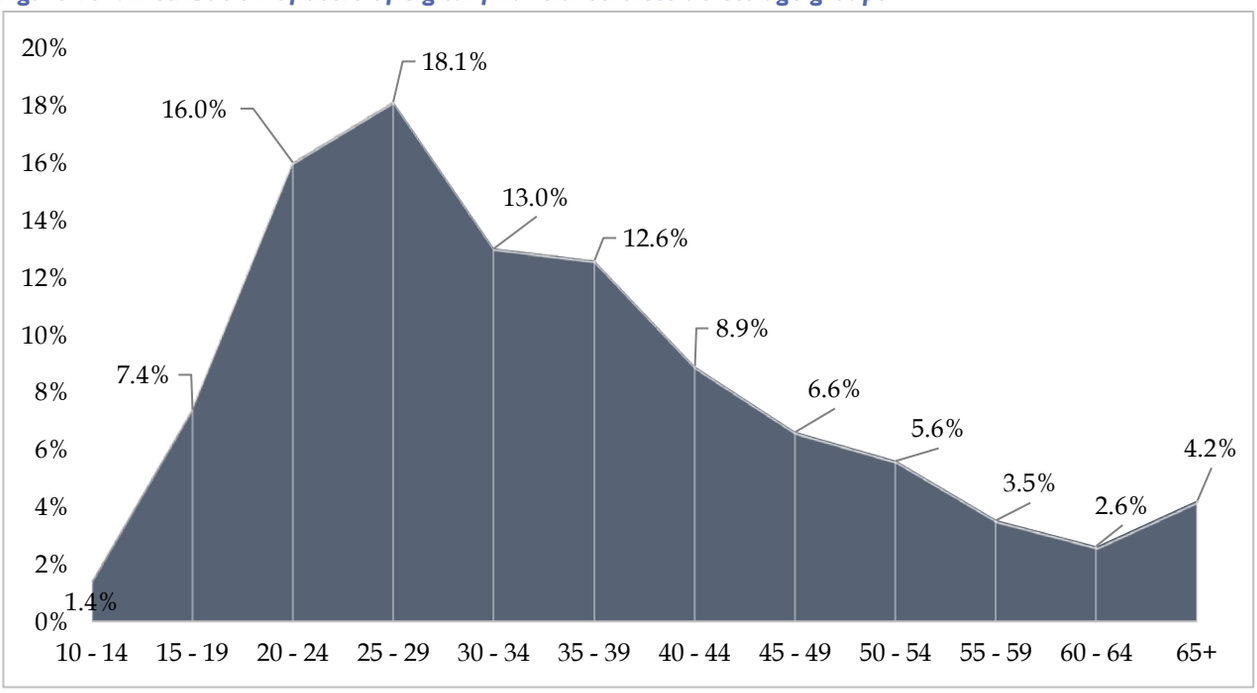
There was a relatively higher proportion of males that indicated that they had used digital financial services before compared to females. Specifically, 30.5 percent of all the males indicated that they had used digital financial services while 28.5 percent of all the females were estimated to have used digital finanicial services.

Figure 150: Usage of digital financial services within sex groups; 2018



about 55.9 percent of all the indivuals aged 10 years and older that indicated that they had used digital fiancial services in the past were below the age of 35 years. This was indicative that more young people were open to using digital financial services than the older population.

Figure 151: Distribution of users of digital financial services across age groups



overtime, there has been a marked improvement in the proportion of individuals aged 10 years and older who are aware of the existence of digital financial services as well as those that use the services. In 2013, only 26.4 percent of individuals aged 10 years and older reported to be aware of the existence of digital financial services and subsequently this proportion increased to 45.9 percent in 2015. However, in 2018 the proportion of individuals aged 10 years and older that reported to be aware of the existence of digital financial services increased to 67.2 percent. Similarly, there has been a marked improvement in the usage of digital financial services from 8.9 percent in 2013 to 30.0 percent in 2015 and subsequently 43.8 percent of among those aware of the availability of digital financial services.

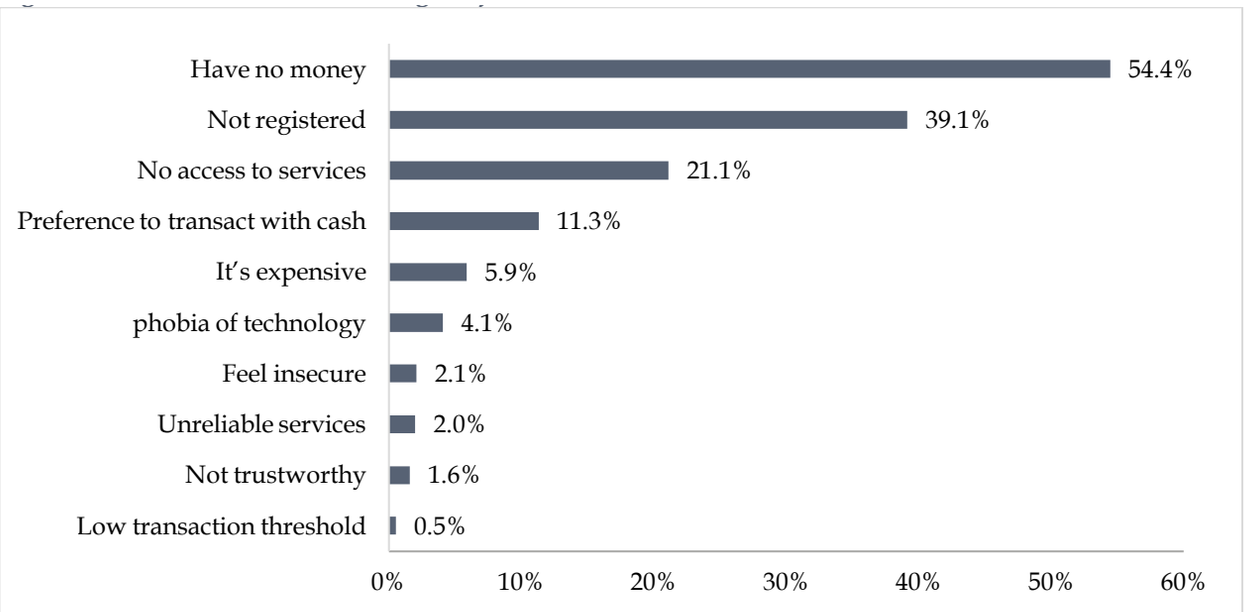
Table 4: Access and usage of digital financial services, 2013 - 2018

Indicator	2013	2015	2018
Proportion of individuals aware of the existence of Digital Financial Services	26.4%	45.9%	67.2%
Proportion of individuals aware of the existence of Digital Financial Services based in urban Areas	69.3%	58.1%	49.2%
Individuals that use Digital Financial services as a proportion of those who are aware of the existence of the service	8.9%	30.0%	43.8%

5.4.3. Challenges with Access to Digital Financial Services

The main reason cited by individuals aged 10 years and older that had not used digital financial services was that they had no resources to use the services or they were not registered accounting for 54.4 percent and 39.1 percent of all the individuals aged 10 years and older that had not used digital financial services before. A very small proportion of individuals aged 10 years and older that had not used digital financial services before attributed their challenges to low transaction thresholds and not having trust in the services accounting for 0.5 percent and 1.6 percent of the individuals aged 10 years and older had not used digital financial services.

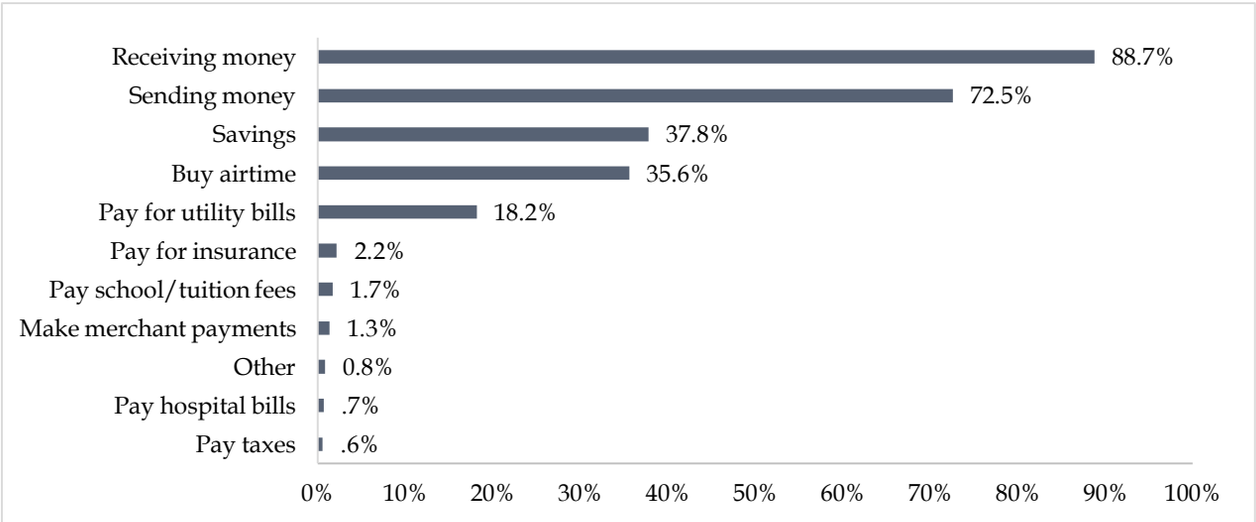
Figure 152: Barriers to access to digital financial services; 2018



5.4.4. Extent of Usage of Digital Financial Services among Individuals

The most popular uses for digital financial services among individuals aged 10 years and older included sending and receiving money accounting for 88.7 percent and 72.5 percent of the people aged 10 years and older that indicated that they had used the services respectively. The proportion of individuals aged 10 years and older using digital financial services for savings, buying airtime and paying utility bills as a share of those that had used the services before was estimated at 37.8 percent, 35.6 percent and 18.2 percent respectively. The least prominent uses of these services included among other things merchant payments and payment of taxes.

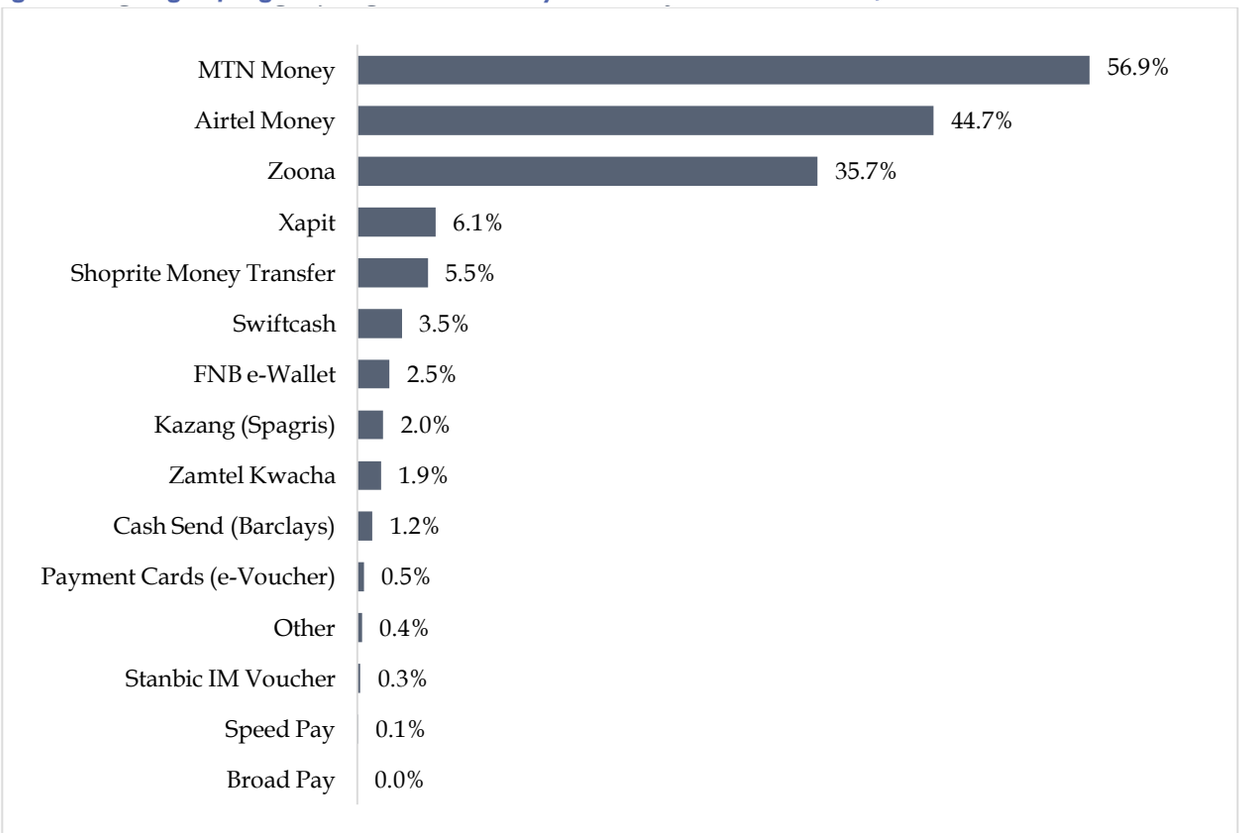
Figure 153: Uses of digital financial services by individuals; 2018



5.4.5. Usage of Digital Financial Services across Providers

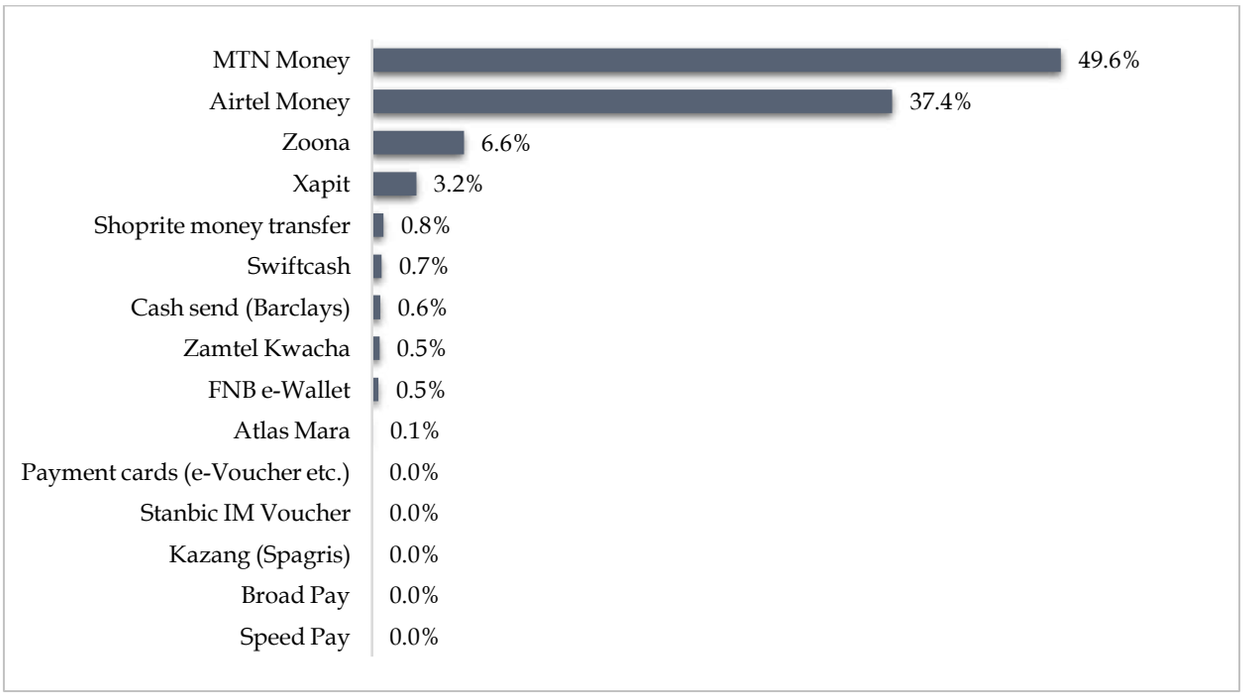
The most widely used digital financial service providers were reported to be MTN money, Airtel money and Zoona accounting for 56.9 percent, 44.7 percent and 35.7 percent of all the people aged 10 years and older that reported that they had transacted using digital financial services before respectively.

Figure 154: Usage of Digital Financial Services by Individuals across Providers; 2018



The survey further established that MTN Money and Airtel Money were the most frequently used digital financial services among individuals aged 10 years and older constituting proportions of 49.6 percent and 37.4 percent respectively. Zoona and Xapit equally had a sizeable proportion of individuals aged 10 years and older that indicated that they used the services most frequently amounting 6.6 percent and 3.2 percent respectively. The majority of providers accounted for less than 1 percent of the users of digital financial services that reported to use the service provider most frequently.

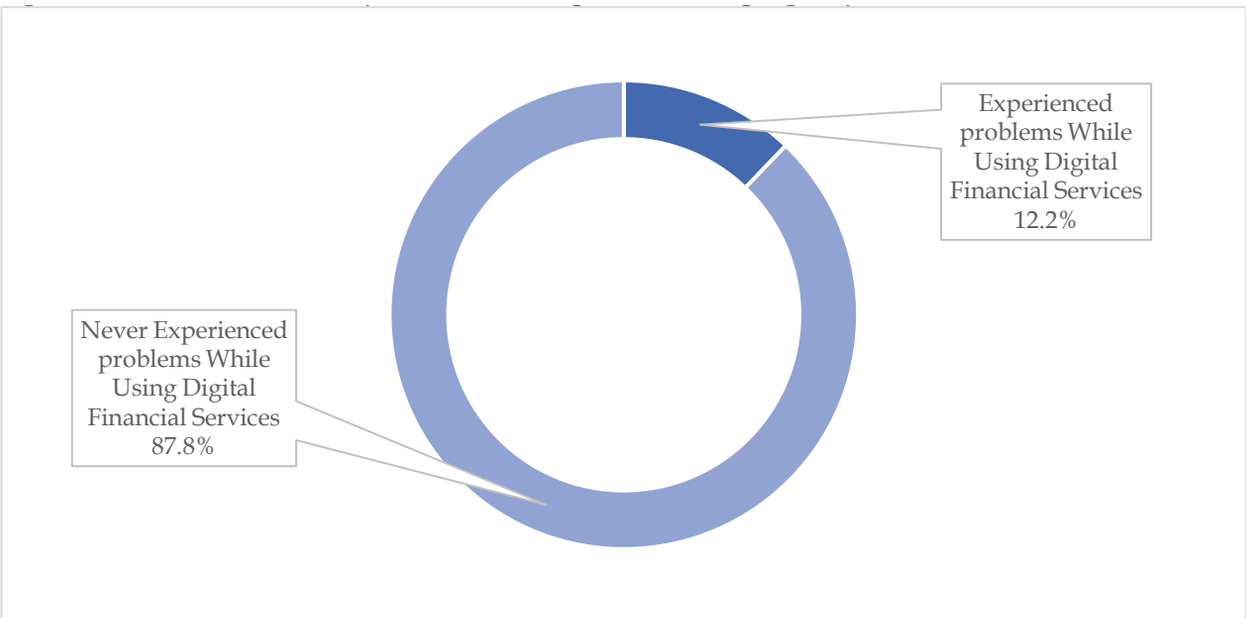
Figure 155: Frequently used digital financial service providers by individuals; 2018



5.4.6. Challenges with using Digital Financial Services

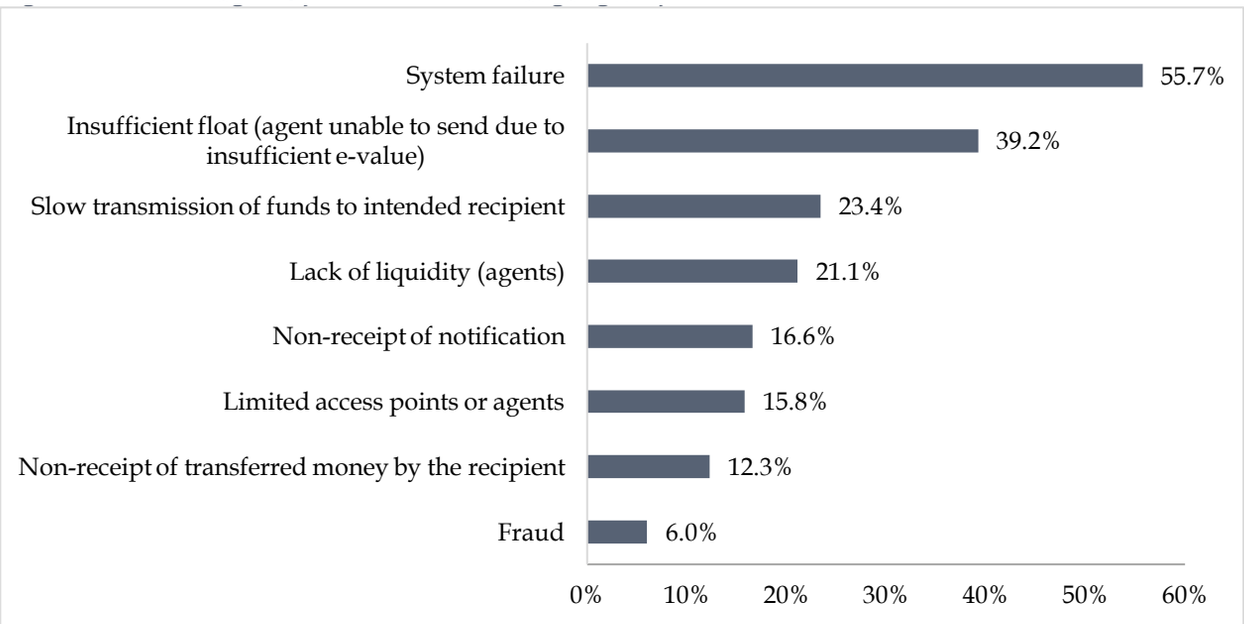
The majority of the individuals aged 10 years and older that indicated that they had used digital financial services before, constituting 87.8 percent, pointed out that they had never experienced any problems while using digital financial services.

Figure 156: Individuals that experienced challenges while using digital financial services; 2018



The most prominent challenges experienced while using digital financial services were system failure and insufficient float by agents accounting for 55.7 percent and 39.2 percent of individuals aged 10 years and older that had used digital financial services and experienced some challenges. The least prominent challenges related to fraud and non-receipt of funds accounting for 6 percent and 12.3 percent of all the individuals aged 10 years and older that had experienced challenges while using digital financial services.

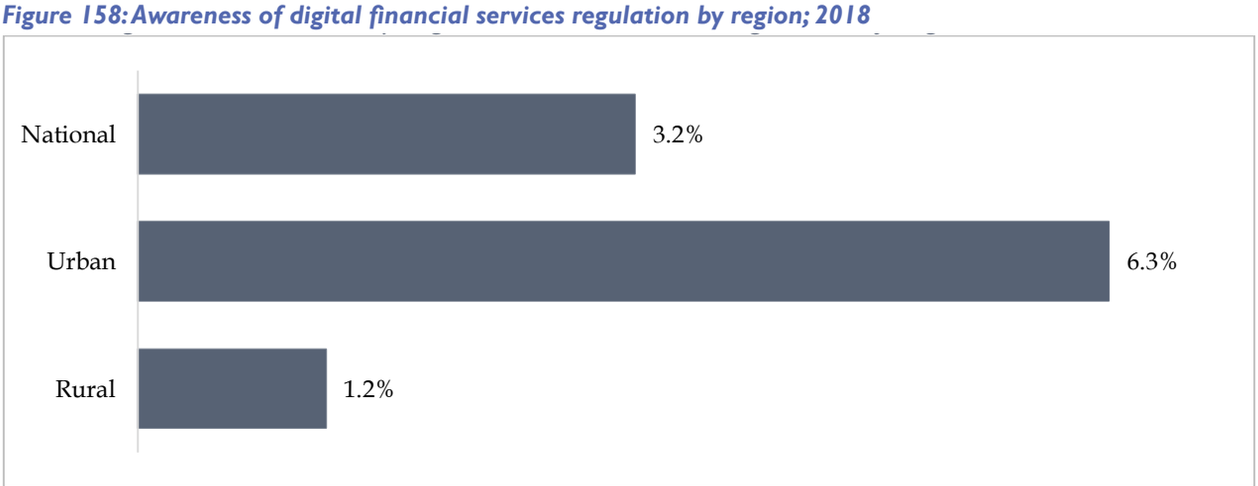
Figure 157: Challenges experienced while using digital financial services; 2018



5.4.7. Regulation of Digital Financial Services

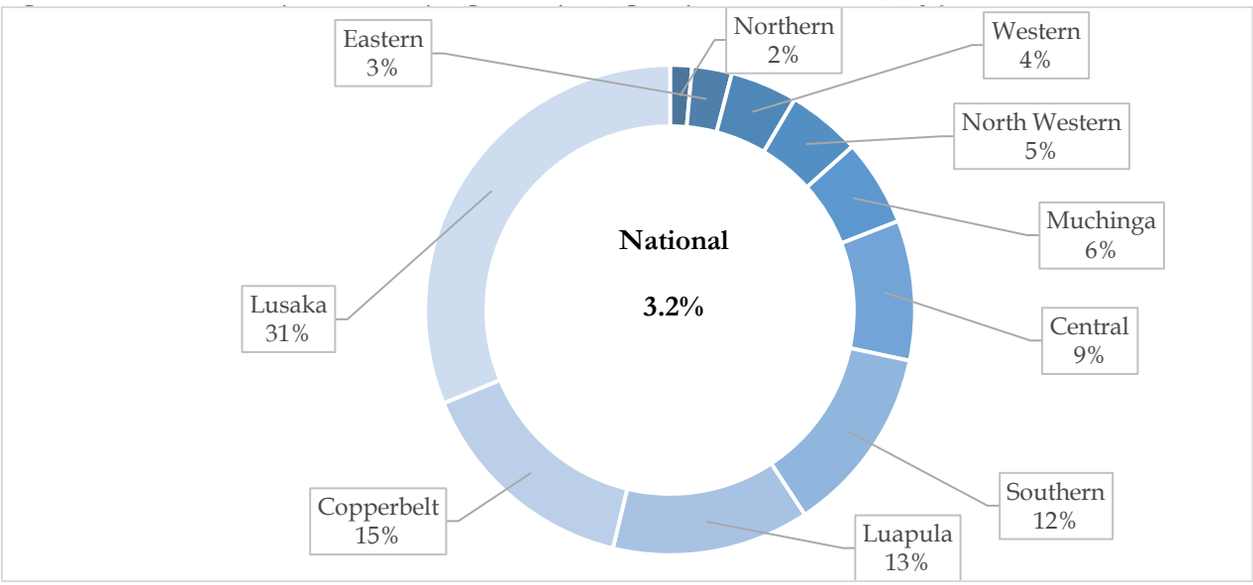
Only 3.2 percent of all the individuals aged 10 years and older across the country indicated that they were aware of an institution that is responsible for the regulation of digital financial services in Zambia. This proportion was relatively larger in urban areas compared to rural areas constituting 6.3 percent and 1.2 percent respectively.

Figure 158: Awareness of digital financial services regulation by region; 2018



lusaka and Copperbelt Provinces accounted for the largest proportion of individuals aged 10 years and older that indicated that they were aware of an institution responsible for the regulation of digital financial services accounting for 31.2 percent and 15 percent respectively. Eastern and Northern Provinces accounted for the lowest proportion of individuals aged 10 years and older that indicated that they were aware of an institution responsible for the regulation of digital financial services accounting for 2.6 percent and 1.4 percent of the total number of people aged 10 years and older that indicated that they were aware of an institution responsible for the regulation of digital financial services.

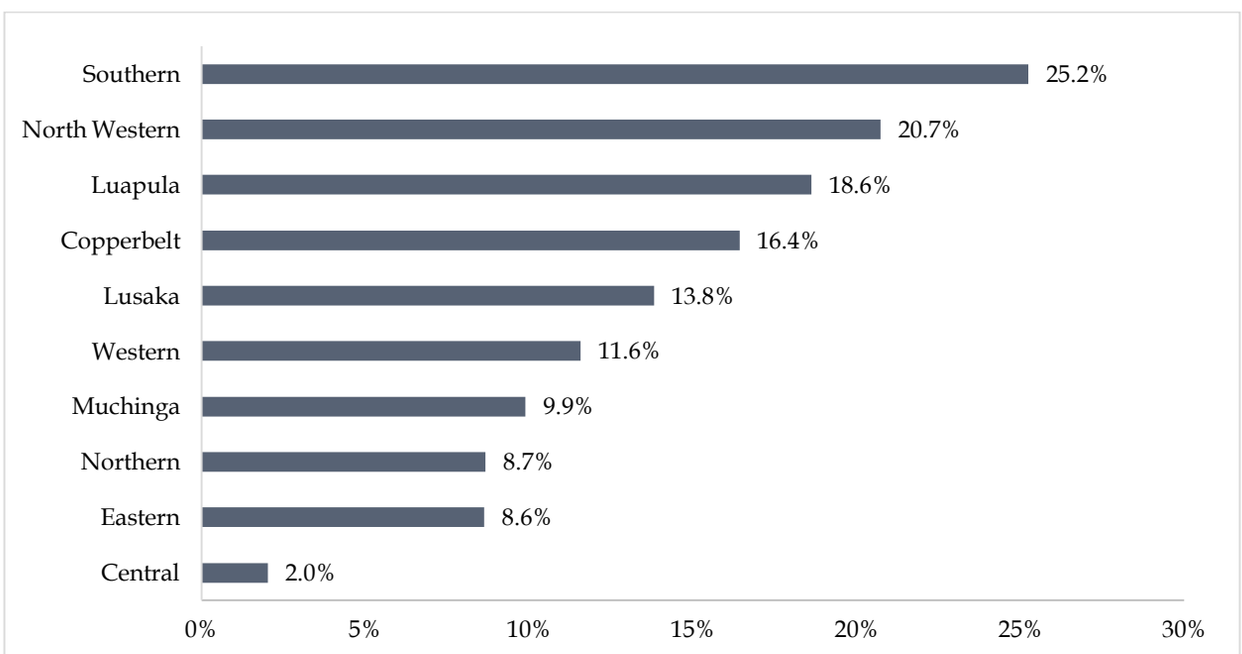
Figure 159: Awareness of existence of regulator for digital financial services by province; 2018



5.4.8. Channels of Redress for Challenges related to Digital Financial Services

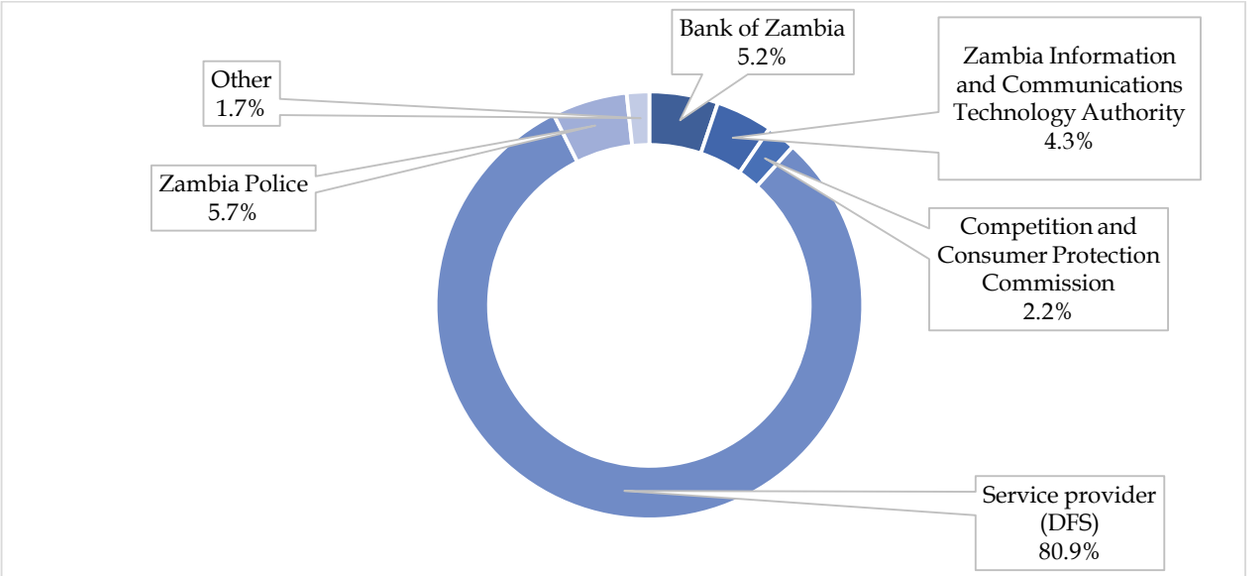
Only 14.2 percent of individuals aged 10 years and older that indicated that they had transacted using digital financial services indicated that they were aware of channels of redress in the event of a problem during usage of the services. Southern and North-Western Provinces had the highest concentration of individuals that indicated that they were aware of some channels for redress of any challenges regarding digital financial services constituting 25.2 percent and 20.7 percent respectively. Central Province had the lowest concentration of individuals aged 10 years and older that indicated that they were aware of some channels for redress of any challenges regarding digital financial services constituting 2.0 percent.

Figure 160: Awareness of avenues for redress for digital financial services; 2018



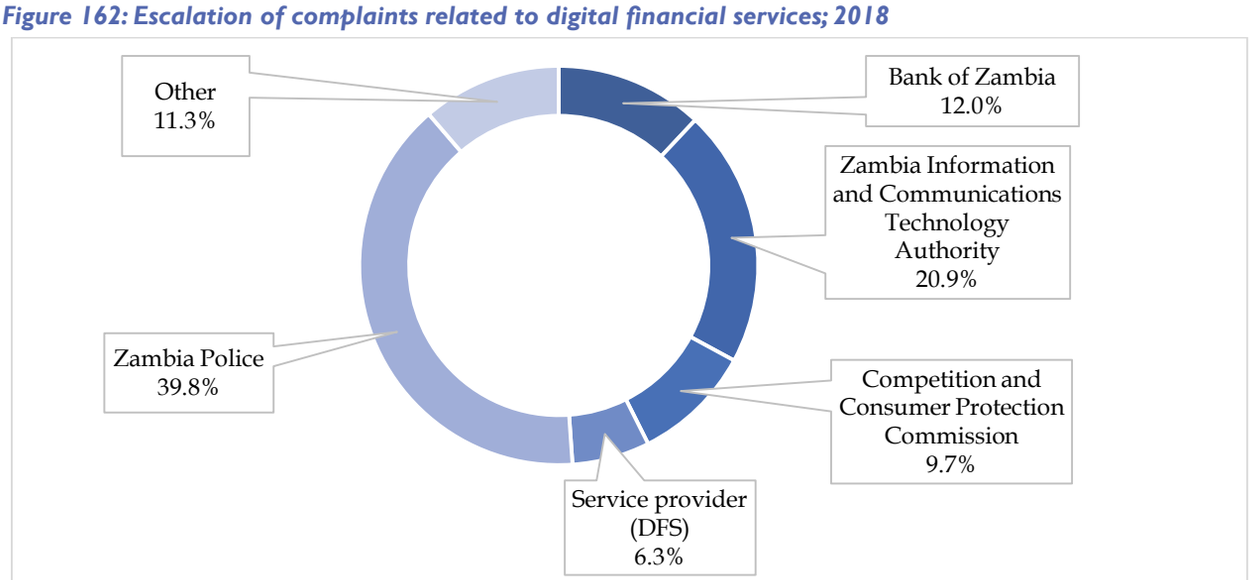
The majority of individuals aged 10 years and older that indicated that they were aware of the channels of redress for problems associated with digital financial services, constituting 80.9 percent, indicated that they would report their challenges first to the provider of the digital financial services.

Figure 161: First point of contact for complaints with digital financial services; 2018



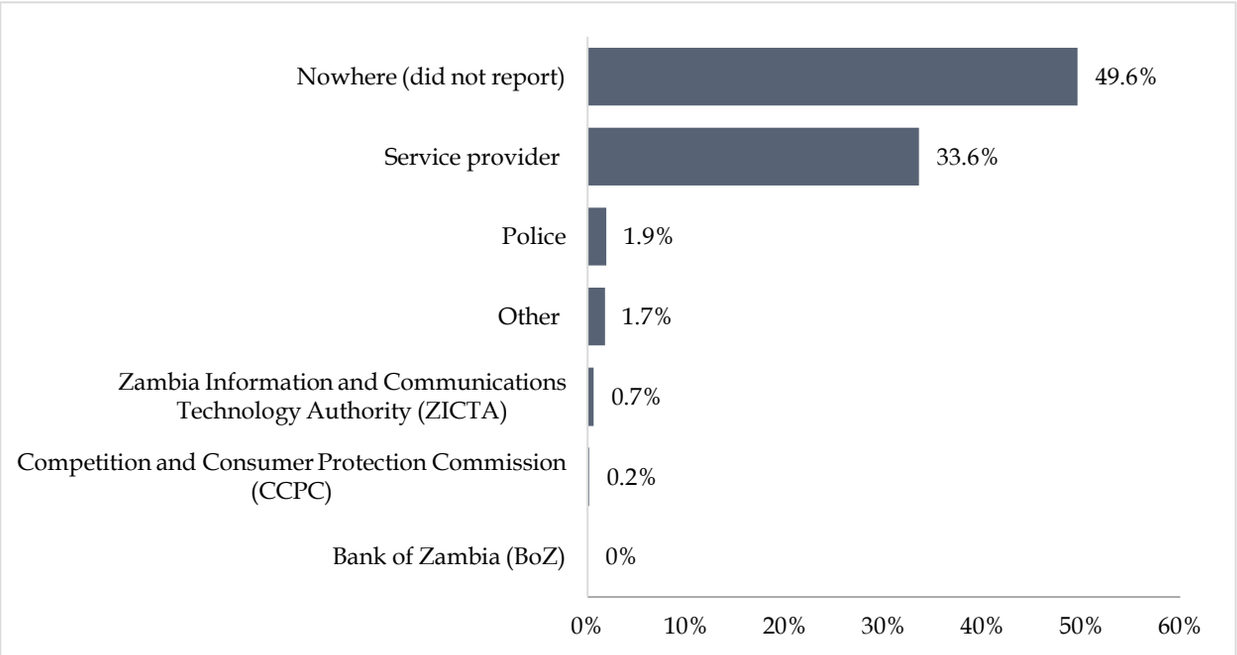
However, the majority of individuals aged 10 years and older that indicated that they were aware of the channels of redress for digital financial services indicated that they would escalate their complaints if they were not resolved to the Zambia police and Zambia Information and Communications Technology Authority accounting for 39.8 percent and 20.9 percent respectively.

Figure 162: Escalation of complaints related to digital financial services; 2018



The survey showed that most of the individuals aged 10 years and older that had experienced problems while using digital financial services, accounting for 49.6 percent of individuals that indicated that they had experienced some problems, did not report the problems encountered anywhere. Only 33.6 percent of the individuals aged 10 years and older that indicated that they had experienced some problems reported the problems to the service provider while 1.9 percent reported to the police. The industry regulators of various aspects of digital financial services such as Zambia Information and Communications Technology Authority, Competition and Consumer Protection Commission and the Bank of Zambia received the lowest proportion of complaints amounting less than 1 percent collectively.

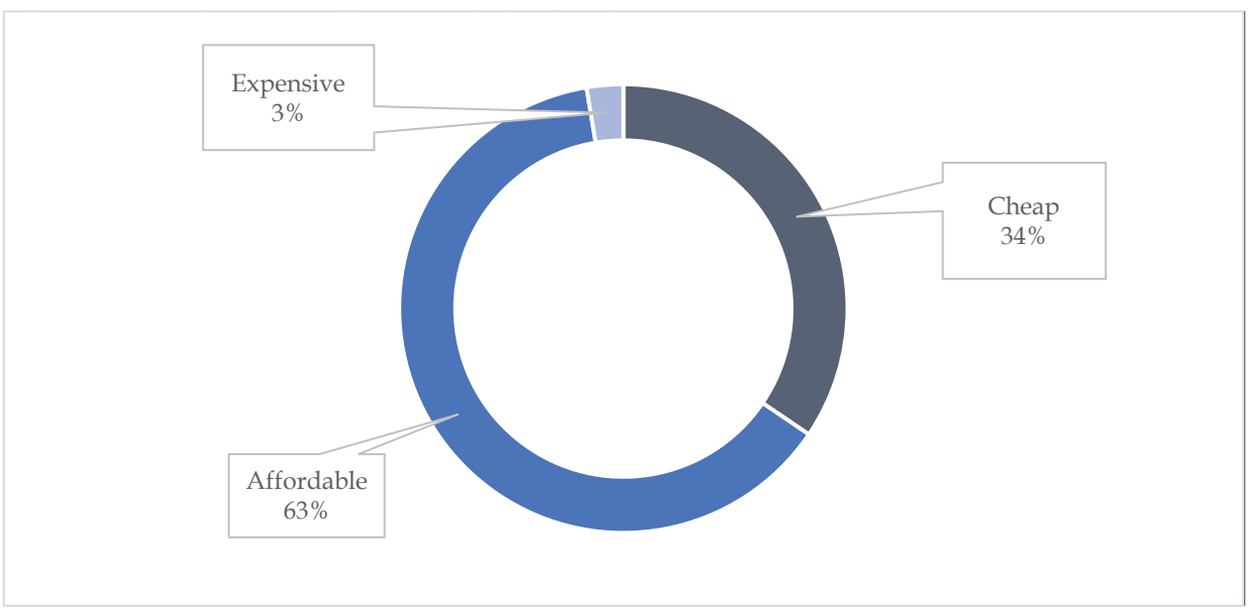
Figure 163: Reporting challenges related to digital financial services; 2018



5.4.9. Affordability of Digital Financial Services

Approximately 62.7 percent of the individuals aged 10 years and older that reported that they had used digital financial services indicated that they were affordable. Only 2.6 percent of the individuals aged 10 years and older that had used digital financial services indicated that they were expensive.

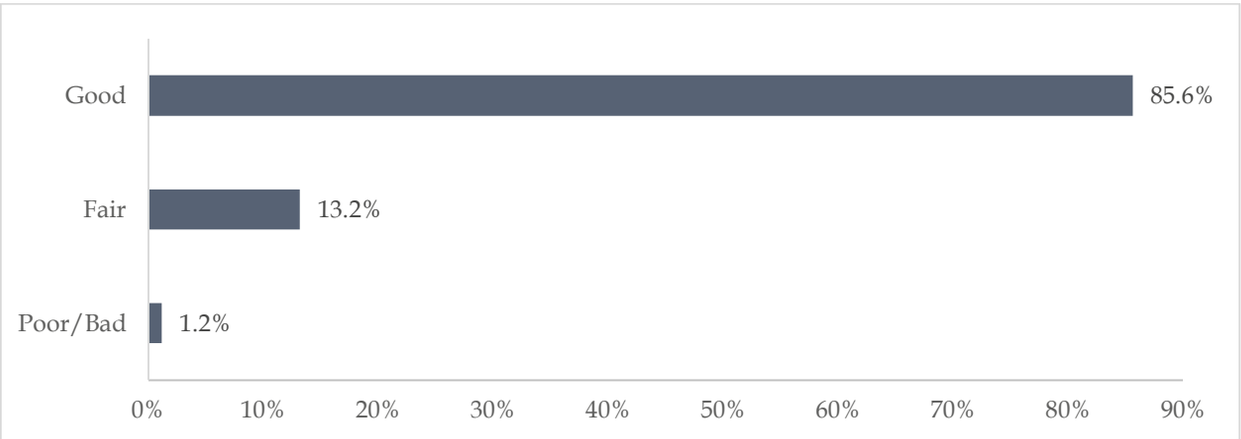
Figure 164: Perceptions on affordability of digital financial services; 2018



5.4.10. Quality of Experience with Digital Financial Services

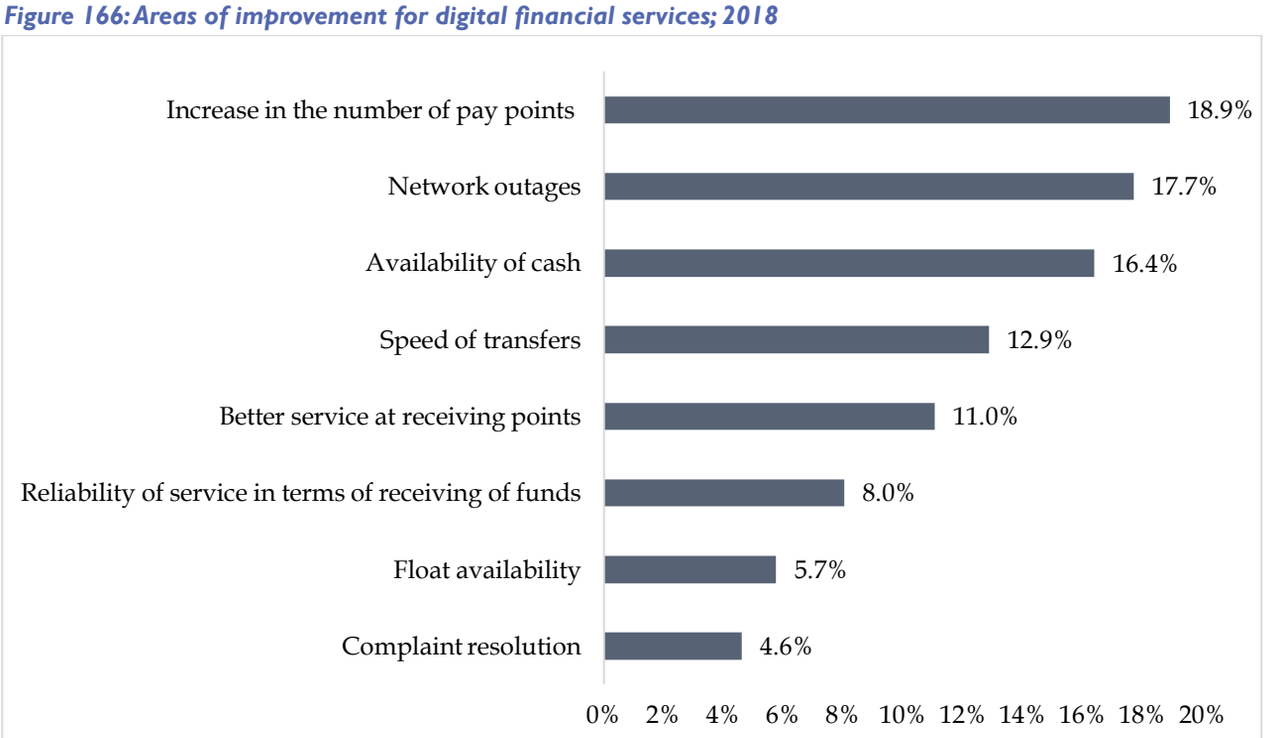
The majority of individuals aged 10 years and older that use digital financial services, accounting for 85.6 percent, were of the view that the quality of service for digital financial services was good. Only 1.2 percent of individuals aged 10 years and older indicated that they were of the view that the quality of service was poor.

Figure 165: Perceptions on quality of service for digital financial services; 2018



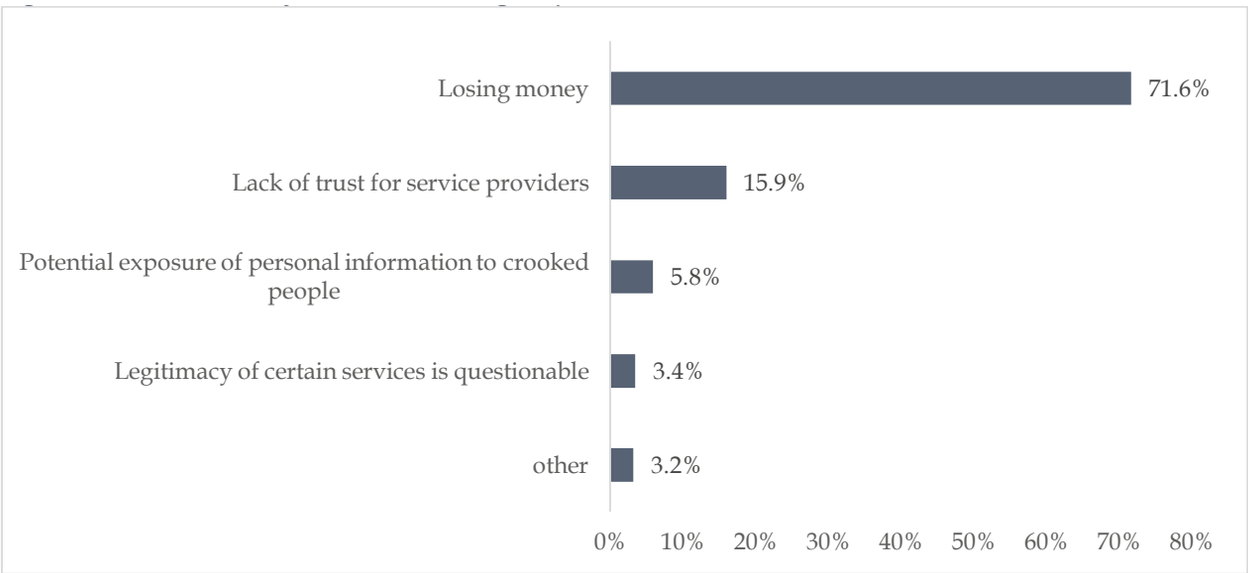
The most prominent areas cited for the improvement of delivery of digital financial services were related to increasing the number of pay points and minimising on network outages accounting for 18.9 percent and 17.7 percent of all the people aged 10 years and older that indicated that they transacted using digital financial services. Fewer individuals aged 10 years and older cited complaints resolution as the main area needing improvement in the delivery of digital financial services.

Figure 166: Areas of improvement for digital financial services; 2018



The main security concern noted by individuals aged 10 years and older that had used digital financial services was the risk of losing money accounting for 71.6 percent of all the individuals aged 10 years and older that had used the services. Other concerns noted included trust associated with the providers of the service as well as potential exposure of personal information and the legitimacy of some services provided.

Figure 167: Main security concerns with digital financial services; 2018



6.0. Electrical and Electronic Waste Management

6.0. Electrical and Electronic Waste Management

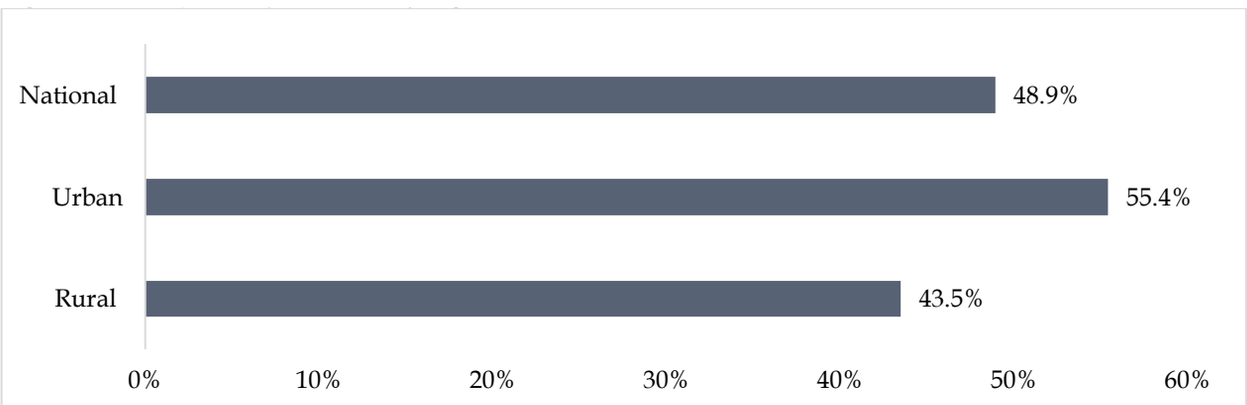
This chapter attempts to estimate the extent of disposal of electrical and electronic waste (e-waste) by households and individuals aged 10 years and older in Zambia. It highlights key trends in disposal of e-waste by region, type and the volume of this waste. An attempt is also made to determine the extent of e-waste by sex as well as that which is emanating from male and female headed households. The chapter also provides some insights relating to levels of awareness on dangers associated with unsafe disposal of e-waste and attempts to identify the common methods of disposal of this waste.

6.1. E-waste Management by Households

6.1.1. Disposal of Electrical and Electronic Waste

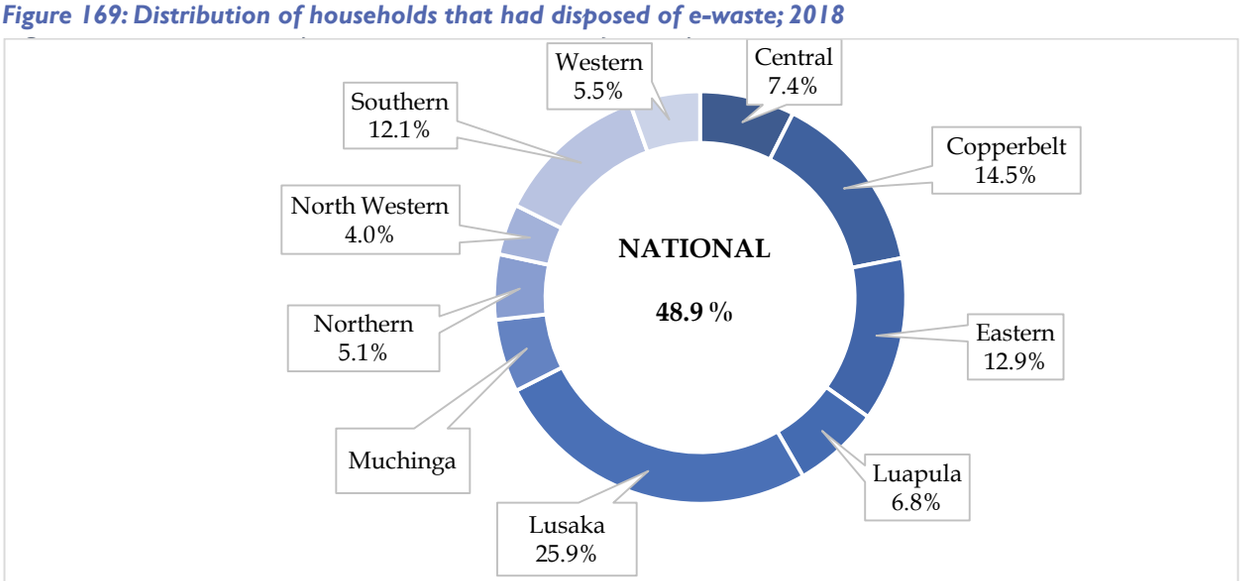
The survey estimated that 48.9 percent of all the households across the country had disposed of some electronic or electrical items which were damaged or were no longer useful to the households. The proportion of households that had disposed of some e-waste were higher in urban areas than in rural areas. Specifically, 55.4 percent of all the households in urban areas had disposed of some e-waste while only 43.5 percent of households in rural areas had disposed of similar waste.

Figure 168: Disposal of e-waste by region; 2018



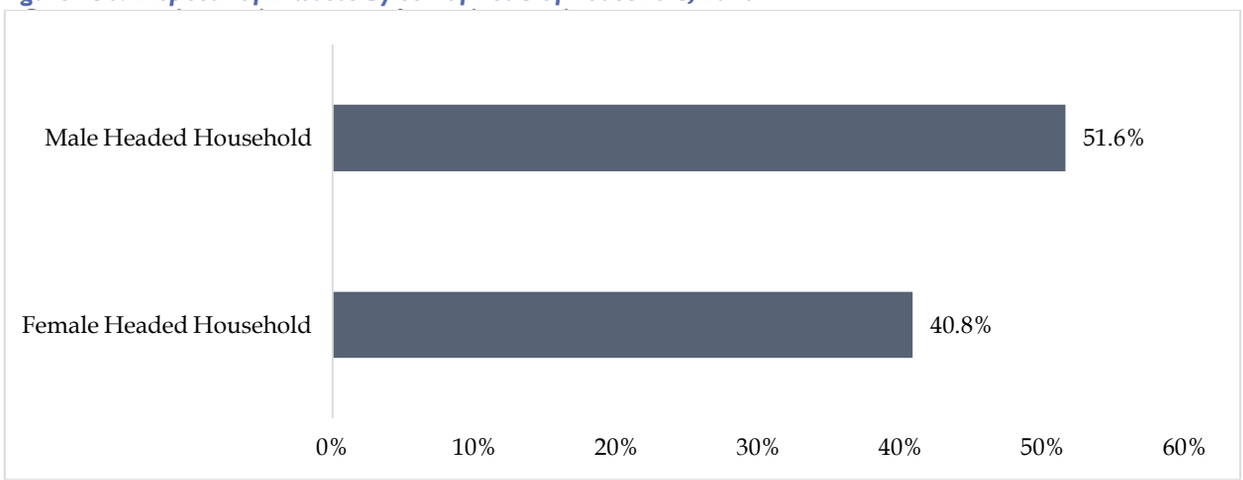
The majority of the households that had disposed of electronic or electrical waste were based in Lusaka, Copperbelt and Eastern Provinces constituting 25.9 percent, 14.5 percent and 12.9 percent of all the households that had disposed of electrical or electronic waste.

Figure 169: Distribution of households that had disposed of e-waste; 2018



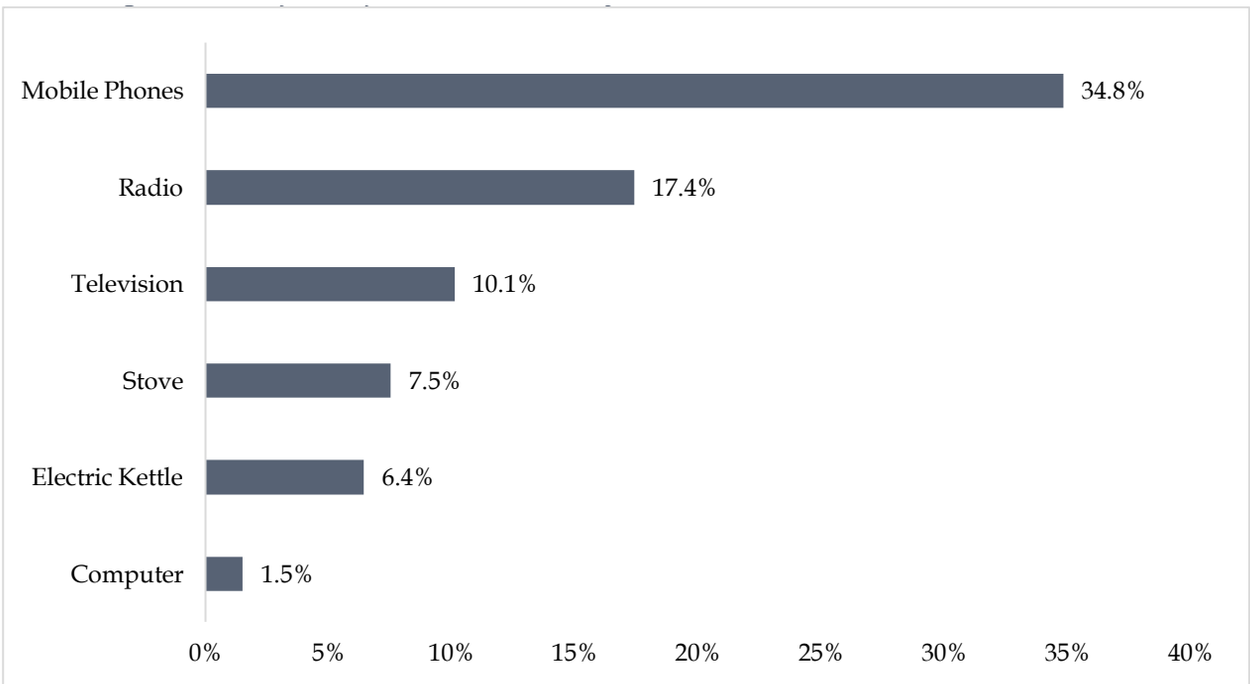
The proportion of ma le headed households that had disposed of e-waste was relatively higher than the proportion of female headed households that had disposed of e-waste. Particularly, 51.6 percent of the male headed households had disposed of e-waste while only 40.8 percent of the female headed households had disposed of e-waste.

Figure 170: Disposal of E-waste by sex of head of household; 2018



The survey established that mobile phones are among the most widely disposed of electronic items by households. Specifically, 34.8 percent of all the households across the country that had disposed of e-waste indicated that they had disposed of a mobile phone. On the other hand, only 1.5 percent of all the households across the country that had disposed of an e-waste reported ever disposing of a computer in the last three years.

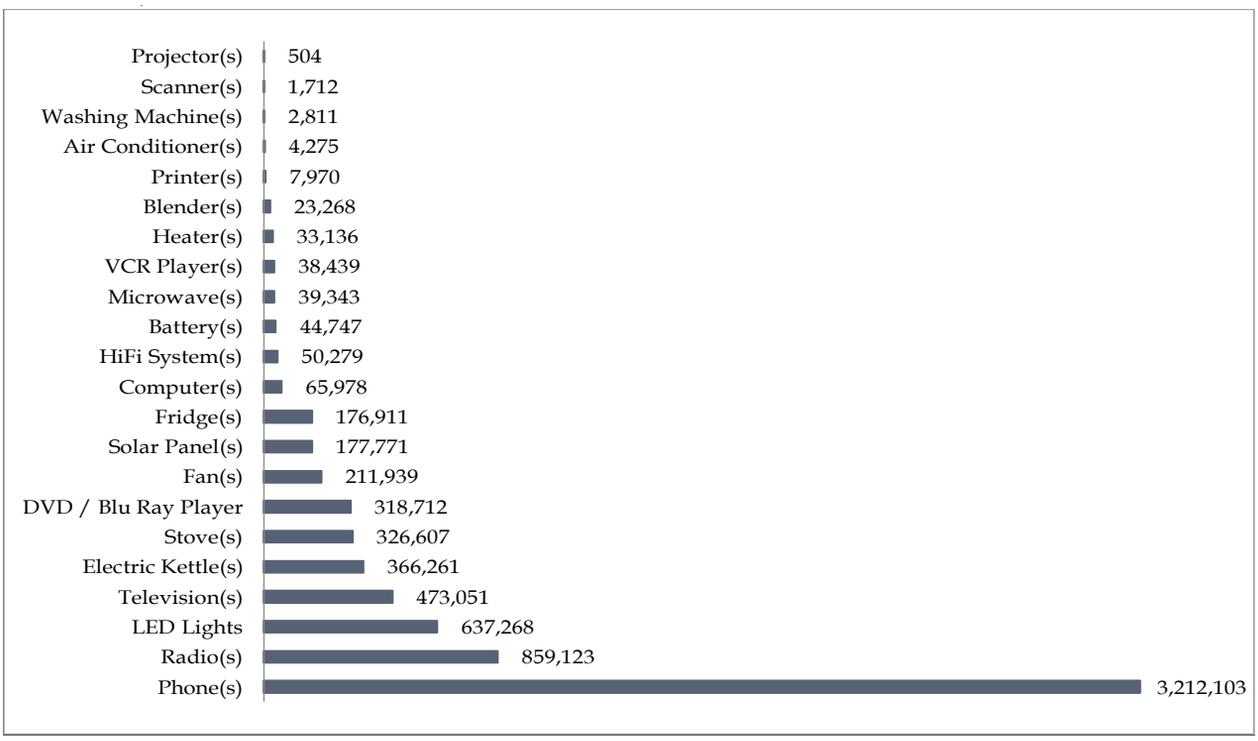
Figure 171: Disposal of selected e-waste by households; 2018



6.1.2. Volumes of Electrical and Electronic Waste

An assessment of the number of electrical or electronic items that were disposed by households revealed that mobile phones and radios were the most widely disposed items by households. On the other hand, scanner(s) and projector(s) were relatively less prominently disposed of.

Figure 172: Distribution of Estimated quantities of electrical and electronic items disposed of by households; 2018



6.2. Electronic Waste Management by Individuals

6.2.1. Disposal of Electronic and Electrical items

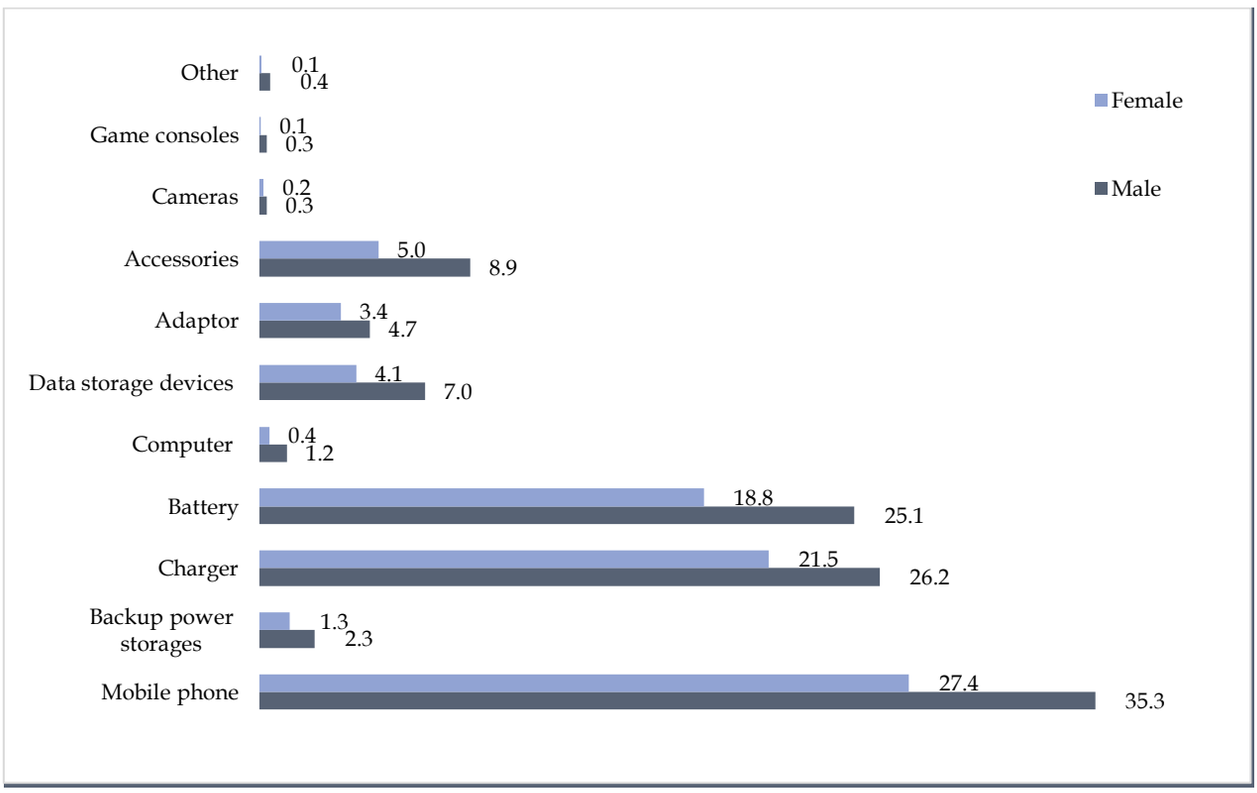
The survey established that 30.8 percent of all the individuals aged 10 years and older in the country aged above 10 years had disposed of mobile phones while 23.5 percent indicated that they had disposed of chargers. Further, 21.5 percent of all the individuals aged 10 years and older had disposed of batteries while only 6.7 percent had disposed of accessories such as headsets, data cables, and power packs.

Figure 173: Percentage distribution of individuals who disposed of e-waste; 2018

	Mobile phone	Backup power storages	Charger	Battery	Computer	Data storage devices	Adaptor	Accessories	Cameras	Game consoles
National	32.5	1.8	24.8	22.7	0.8	5.6	4.2	7.1	0.2	0.2
Province										
Central	34.0	2.5	21.3	26.7	0.4	5.4	1.9	6.6	0.5	0.4
Copperbelt	26.7	1.7	24.6	25.9	0.7	4.9	7.1	7.8	0.2	0.3
Eastern	30.2	0.8	24.8	30.0	0.2	5.1	2.4	6.0	0.2	0.0
Luapula	31.0	1.3	25.2	21.9	1.2	7.2	3.0	7.9	0.7	0.2
Lusaka	30.2	2.5	26.6	20.6	1.3	5.2	5.5	7.7	0.1	0.1
Muchinga	31.5	1.5	23.3	15.4	0.6	11.0	5.1	10.4	0.5	0.3
Northern	46.3	1.7	18.3	19.9	0.4	4.9	2.8	5.4	0.2	0.0
North-Western	32.9	0.8	26.9	22.3	0.1	5.9	3.2	6.4	0.3	0.0
Southern	41.5	2.0	25.2	19.3	0.6	4.0	2.3	4.6	0.1	0.1
Western	36.3	0.6	24.0	25.2	0.5	5.9	1.4	5.6	0.1	0.0

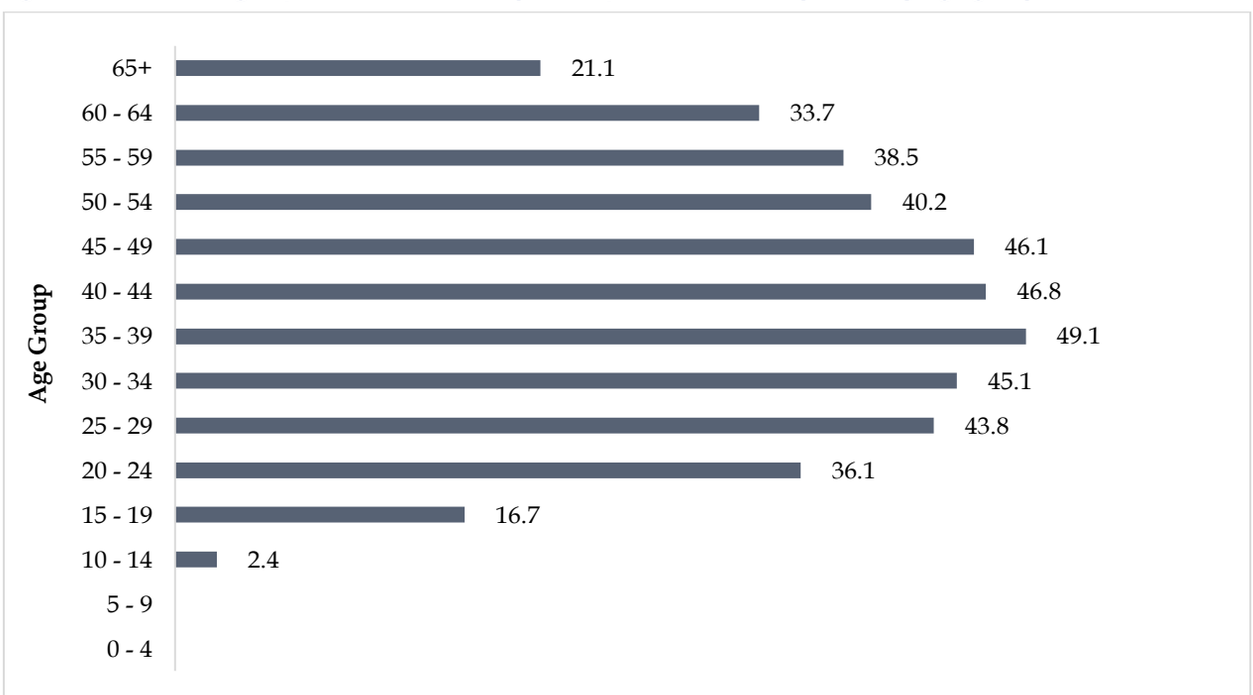
An assessment of the disposal patterns of e-waste within the different sex groups revealed that 35.3 percent of the males reported disposing of a mobile cellular phone, 26.2 percent a phone charger, 25.1 percent a battery and only 1.2 percent disposed of a computer. On the other hand, 27.4 percent of the females disposed of a mobile cellular phone, 21.5 percent a phone charger, 18.8 percent disposed of a battery and 0.4 percent disposed of a computer.

Figure 174: Percentage of e-waste disposal by sex groups; 2018



The survey established that the age group 35-39 years had the highest percentage of persons who disposed of mobile phones at 49.1 percent, followed by the age group between 40-44 years at 46.8 percent. It was observed that the younger age groups below 24 years had lower proportions of persons disposing of mobile cellular phones. A similar pattern was also observed for individuals aged above 60 years.

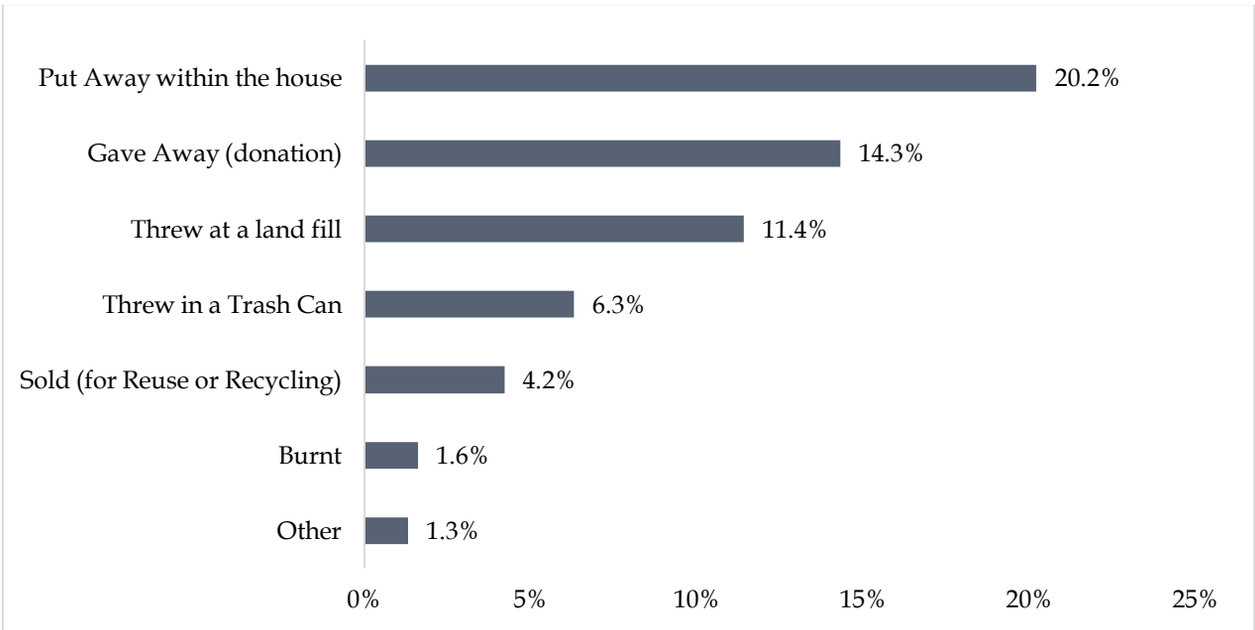
Figure 175: Percentage of individuals that disposed of mobile cellular phones by age group



6.2.2. Methods of Disposal for Electronic and Electrical Devices

The most prominent method of disposal for electronic and electrical waste by individuals was putting away of the electrical or electronic waste that was deemed unfit for use as well as donating of the devices constituting 20.2 percent and 14.3 percent of all the individuals aged 10 years and older that had disposed of some items. Only 11.4 percent of individuals aged 10 years and older reported that they threw their e–e-waste at a landfill. Only1.6 percent of all the individuals that had disposed of some items reported burning devices as a way of disposal.

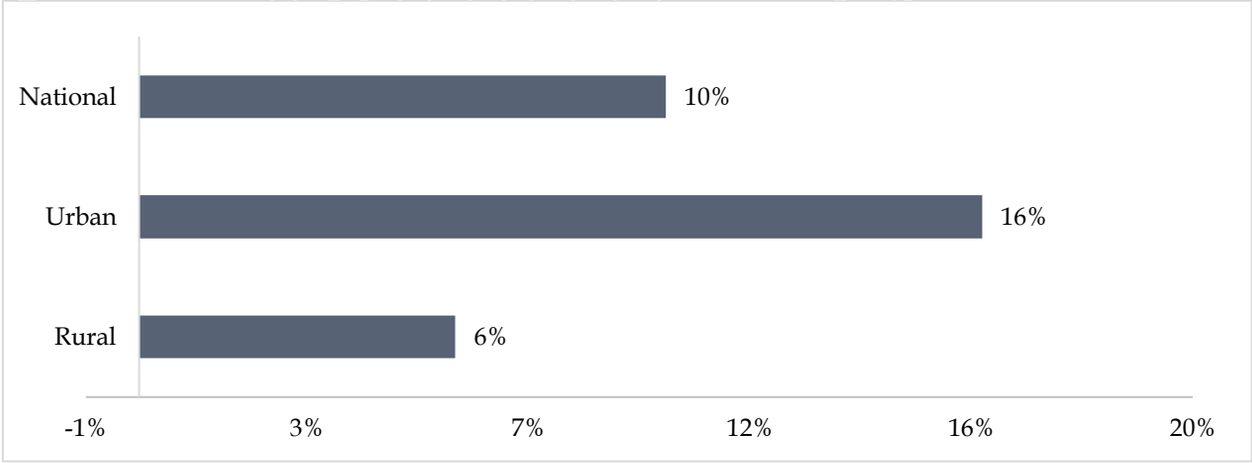
Figure 176: Methods of disposal for e-waste; 2018



6.2.3. Awareness of Dangers Associated with Unsafe Disposal of E-Waste

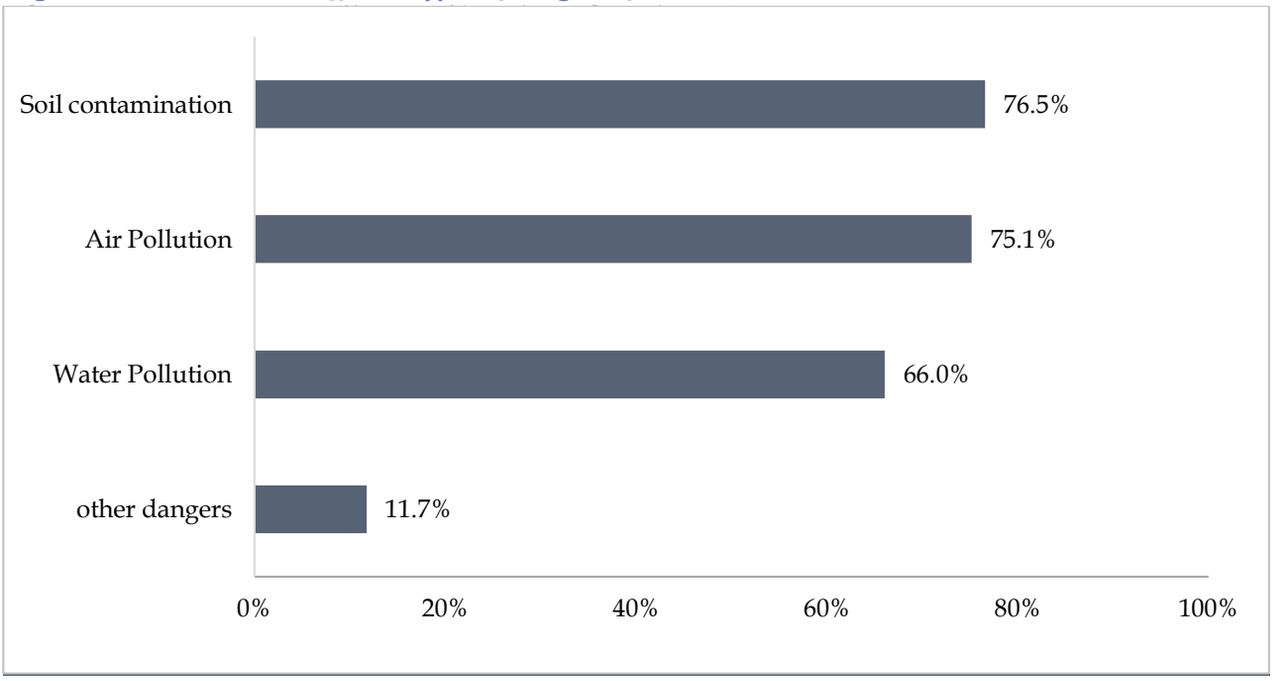
The survey established that only 10 percent of the population aged 10 years and older indicated that they had knowledge about the dangers associated with unsafe disposal of e-waste. The proportion of individuals aged 10 years and older aware of the risks associated with e-waste was relatively higher in urban areas compared to the rural areas. Specifically, 16 percent of the individuals aged 10 years and older in urban areas were aware of the risks associated with e-waste while only 6 percent of the individuals aged 10 years and older based in rural areas were aware of the dangers associated with e-waste.

Figure 177: Awareness of dangers of unsafe disposal of E-waste across Regions; 2018



The most prominent risk associated with unsafe disposal of e-waste that individuals aged 10 years and older were aware of was soil contamination and air pollution constituting 76.5 percent and 75.1 percent respectively of all the individuals aged 10 years and older that were aware of some dangers associated with unsafe disposal of e-waste.

Figure 178: Awareness on different types of dangers of E-waste; 2018



7.0. Key Conclusions, Policy and Regulatory Considerations

7.0. Key Conclusions, Policy and Regulatory Considerations

The 2018 survey on access and usage of ICTs was primarily aimed at measuring the progress attained by the country in enhancing the uptake of various ICT products and services by households and individuals. Other aspects investigated broadly related to the quality of experience for various ICTs, the risks associated with online activities as well as the mitigation strategies adopted by households and individuals. Further, the survey provides insights regarding the adoption of digital financial services as well as the associated challenges in using the services and the barriers to the uptake of the services in the country. An assessment of the electrical or electronic waste management practices adopted by households and individuals were also evaluated.

Overall, there was significant progress observed in the uptake of various ICT products and services considered. Particularly, an outstanding improvement in the proportion of smartphone owners was observed between 2015 and 2018. The proportion of individuals that owned mobile phones that were smartphones increased from 13.5 percent to 29.6 percent over the last three years. This development was particularly high in the urban areas where an increase from 18.4 percent in 2015 to 42.1 percent in 2018 was observed. This is reflective of an exponential uptake of data services in the country. However, slower progress was observed in selected segments such as computer ownership by households. Specifically, only 8.1 percent of the households across the country reported to own a computer following a similar proportion in 2015 of 7.1 percent of the total number of households. Regional imbalances as well as provincial imbalances were prominent across all ICT products and services. It was evident that concentration in access and usage was mainly in Lusaka province, Copperbelt province, Southern Province and in some instances, Central Province.

A number of challenges relating to the quality of experience in the course of using ICTs were observed. Notably, there was significant dissatisfaction relating to complaint resolution and accuracy in billing for mobile services as well as internet services. Further, there were reported challenges with internet speeds, voice clarity on mobile voice services, intermittent network outages and dropped calls. For the excluded, the barriers to the uptake of ICTs included knowledge and awareness on how to use the services, cost of the devices and services as well as the lack of network coverage. Online risks continues to be an important issue worth consideration as the levels of awareness and adoption of mitigation strategies remained low. Particularly, only 34.1 percent of the household heads indicated that there was a member of their household responsible for monitoring activities online. The main incidents for online risks were related to fake news and exposure to pornography which were even more extensive on social media platforms.

Digital financial services continued to play an important role in extending financial inclusion in the country. E-wallets were noted to be the most extensive form of financial accounts held by individuals aged 10 years and older. However, the extent of adoption was relatively minimal in view of the potential that exists in the country. The main barriers to uptake were reported to be related to perceptions that the services are for the economically endowed, non-registration as well as limited access to the services. However, some challenges exist in the usage of digital financial services. Notably, there were problems related to system failure or persistent down times, inadequate pay points, insufficient float by agents as well as delayed transmission of funds.

E-Waste management is a relatively new phenomenon in the country that has received little attention. Only 10 percent of the individuals aged 10 years and older that had disposed of some e-waste across the country indicated that they were aware of any safe methods of disposal. It was also noted that mobile phones were among the most prominent sources of electrical and electronic waste in the country. On average, one (1) million mobile cellular phones per year were disposed by households over the last three years prior to the survey. The most prominent methods of disposal included but were not limited to putting the devices away in the house and giving it away. Less than 5 percent of the individuals aged 10 years and older that had disposed of e-waste had taken the devices for recycling.

A number of policy and regulatory considerations can be drawn from the findings of the 2018 survey on access and usage of ICTs in the country. In the first place the increased adoption of ICTs as evident from the findings guides policy makers and the regulator to place more oversight on issues related to

ICTs. This is because ICTs are likely to affect a larger cross section if not the entire population. Some issues for consideration are proposed below:

a) There is need to continue exploring avenues for extending access to electricity supplied by utility companies if increased adoption of ICTs is to persist. The survey estimates that only 32.9 percent of the households across the country access electricity through a utility company. Greater focus should be on rural areas as only 6 percent of the households in the rural areas had supply through a utility company compared to 65.5 percent of households based in urban areas.

b) Interventions aimed at increasing awareness need to be structured with the demographic composition of the population in mind. Particularly, over 78 percent of the population was aged below 35 years. At the same time, 52 percent of the population are female. Similarly, Lusaka and Copperbelt Provinces account for the largest proportion of the population. There were noted imbalances in access and usage of ICTs with respect to the geographical distribution of individuals and to a limited extent across sex groups.

c) There is need to explore avenues for enhancing the quality of television reception for the national broadcaster, which is the most widely adopted television station. Further, the adoption of ZNBC set-top boxes remains low despite the progress on the initiatives related to digital migration. Further, while community radio stations are the most widely accessed radio services, the quality of the reception was not the most favourable. More oversight may be useful to enhance the quality of radio services received by households.

d) The improvement in the adoption of fixed line services, partly explained by the use of SIM card based fixed telephones, provides an innovative prospect for the market segment. The market segment could be opened up to more innovative options such as fibre based services to complement the emergence of the SIM card based fixed telephones.

e) Deliberate policy actions aimed at increasing the uptake of computers in the country will be necessary. For instance, fiscal incentives aimed at either the importation of computers or local assembly of computers could provide a more affordable avenues for accessing the devices.

f) ICT skills remain nascent especially outside secondary school going individuals aged 10 years and older. Further, advanced ICT skills were notably low with the majority of individuals exhibiting basic skills. It will be useful to extend interventions aimed at enhancing ICT skills to primary schools as well as enhancing the depth of the curriculum on ICT training at all levels of education.

g) As smartphone ownership is expanding, exposure to online risks is expected to increase. It will be useful to enhance efforts aimed at increasing awareness on online risks as well as the mitigation measures for the risks. Particularly, fewer households were aware of the filters that can be provided by the internet service provider.

h) ZICTA must enhance its oversight on network availability, quality of voice call clarity, internet speeds, dropped call rates, complaint resolution and accuracy in billing. For instance, more periodic audits on the billing platforms could be undertaken. At the same time, more extensive tests on the quality of service could be considered.

i) The regulator could consider enhancing its efforts in mitigating the risks associated with fake news and exposure to pornography. This is especially prominent on social media platforms. Consideration could be given to increasing awareness on mitigation measures, channels of redress as well as more responsible use of the internet and social media in particular.

j) Efforts to extend financial inclusion through increased uptake of digital financial services will be useful. There is still a lot of scope to leverage on the increased adoption of ICTs to enhance financial inclusion. Much of the effort should be directed at increasing awareness about the services as well as spelling out misconceptions on the appeal of the services to the wealthy.

k) Regulatory oversight of digital financial services should include but not limited to improving the network availability, mitigating challenges with lack of float especially with most agents as well as monitoring key performance indicators on transmission of funds. There is also need to stimulate the agent networks coverage.

l) Awareness on safe disposal of e-waste remains a huge gap in Zambia. The Zambia Environmental Management Agency working with other stakeholders must enhance its awareness efforts to sensitise the public on the dangers of e-waste as well as the alternative methods for safer disposal of e-waste. This may also entail developing more platforms for safe disposal of e-waste. The increased accumulation of e-waste from mobile phones, chargers and batteries raises concern on the quality of devices available on the market. More oversight on the adherence to quality standards that could enhance the useful life of the devices may be useful to mitigate this growing challenge.

m) The gender divide observed in access and usage of ICTs among households and individuals needs redress. Particularly, fewer females than males have access to mobile phones, computers, know how to use a computer and do not have ICT skills. Efforts to bridge this digital divide should be enhanced to reduce these disparities. Specifically, public actors, private entities and non-state actors should devise strategies aimed at increasing the uptake and usage of ICTs among women and girls. As more cyber related risks are increasingly targeted at women and girls, mitigating this risk can be a priority for new initiatives. Further, skills among girls and women can be enhanced through short term training programmes as well as advocating for quotas that favour women and girls in ICT training institutions.

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Annexure 1: Survey Methodology

Target Population and Coverage

The target population for the survey was, all individuals who are aged above 10 years and were present at home at the time of the survey. The survey was conducted in all the ten (10) provinces of Zambia.

Sampling Design

The method of sampling that was adopted for this survey was a stratified two-stage sampling method. The survey objectives and the available sampling frame were the main determinants for the method.

The sample design for the survey called for a probability sample of 6,150 households in which all eligible persons aged 10 years and older were to be interviewed. The cluster-based household sample was selected country-wide, in every province and by urban/rural residence. The sample is nationally representative and designed to produce national, provincial, urban and rural estimates. Sample design for the first survey in 2013 began with the sample of 243 clusters and was based on the 2010 Census of Population and Housing as the sampling frame. In the second survey the number of clusters increased to 246, an improvement in sample size from the 243 clusters in the 2013 sampling. For the 2018 survey the same number of clusters was maintained. The 2010 sampling frame was used for all the three surveys.

Sampling Frame

The description of the structure of the 2010 census frame used for selecting the primary sampling units (PSUs), is given within Zambia's administrative boundaries. The provinces are subdivided into districts. For statistical purposes each district is subdivided into Census Supervisory Areas (CSAs) and these are in turn subdivided into Enumeration Areas (EAs). EAs are grouped within wards while wards are grouped within constituencies. Constituencies are further grouped within districts and districts in provinces. The listing of EAs has information on the number of households and the population. The EAs are grouped into urban and rural categories within districts. There are about 25,000 EAs countrywide. The sample frame for this study was the list of EAs for the whole country.

Sample Size

The formulas to calculate sample size are based on simple random sampling. More complex sampling designs such as multi-stage sampling, lead to higher variances in survey estimates. Therefore it is necessary to inflate the sample size determined using simple random sampling formulas to take the type of design into account. The multiplication factor is called the design effect. The design effect (*deff*) is the ratio of the actual variance of a sample to the variance of a simple random sample of the same number of elements. This factor inflates the simple random sample size to take care of complexities of clustering and stratification in the sample design. This inflation factor is usually determined from other surveys of the same or similar design.

Therefore the sample size for this survey was computed step by step as:

Step. 1

The first step involved calculation of initial simple random sample size was calculated as

$$n_{srs} = \frac{s^2}{[cv(p)p]^2} = \frac{p(1-p)}{[cv(p)p]^2}$$

$$n_{srs} = \frac{0.5(1-0.5)}{(0.05 \times 0.5)^2} = 400$$

, where n_{srs} = initial simple random sample size, es^2 = variance under the assumption of simple random sampling, cv(p) is the coefficient of variation for the proportion and p = is an estimate of the proportion of the population that has the characteristic of interest or the probability of success.

Step. 2

The second step involves adjustment of the initial simple random sample with the design effect and the expected response rate. The design effect, however, is usually estimated subjectively by making use of whatever knowledge is available about the variability of Characteristics of interest in the population. For this survey, a design effect of 1.5 was used (being the recommended default value. A response rate of 97.5 percent was chosen.

$$n = \frac{n_{srs} \times deff}{r} = \frac{400 \times 1.5}{0.975} = 615$$

where n = the overall sample size under our design which is approximately 615 households.

n_{srs} = the initial simple random sample size

r = the expected response rate

$deff$ =the design effect

A sample of about **615** households was derived to give reliable estimates at national level. However, since there are 10 analysis domains (provinces) for which separate estimates were required, initial sample size of households (615) was thus multiplied by 10 to get the overall sample size. Therefore, the overall sample size was **6,150** households, covering about 30,000 respondents.

Since the survey was based on stratified two-stage sampling, the initial selection of the sample involved selection of clusters or enumeration areas. The total number of clusters to be selected was based on a cluster take of 25 households per cluster i.e. the number of households to be selected in each selected enumeration area. An adjustment to the initial allocation was made to ensure an even number of clusters in each stratum as recommended. Therefore the number of clusters increased from 243 to 246, resulting into 6,150 households.

Sample Allocation

Sample allocation to the provinces was done using proportional allocation, with population being the measure of size. This method ensures that each province gets a sample size which is representative of its population.

Sample Allocation by Province

Province	Population	Households Allocated	SEAS
Central	1,307,111	600	24
Copperbelt	1,972,317	950	38
Eastern	1,592,661	750	30
Luapula	991,927	450	18
Lusaka	2,191,225	1,000	40
Muchinga	711,657	350	14
Northern	1,105,824	500	20
North Western	727,044	350	14
Southern	1,589,926	750	30
Western	902,974	450	18
All Zambia	**13,092,666**	6,150	246

Sample Selection

The sample was selected using a stratified two-stage sampling method. The first stage involved selection of clusters corresponding to SEAs from the frame developed for this survey. The second stage involved selection of households in the selected clusters. Equal probability selection method was used to get the required sample of end-users of ICT services in the chosen target areas.

Sampling Procedure

In order to make the sample selection more efficient, SEAs were selected with probability proportional to size (PPS) within each stratum. The SEAs were geographically ordered in a serpentine manner within each stratum. This ensured a systematic selection which resulted in implicit stratification. The systematic sampling procedure is efficient in terms of simplicity of selection and lowering sampling error.

In the second stage households will be selected from the selected clusters upon completion of the households listing exercise.

Selection of Clusters - PSUs

A cluster was the ultimate area unit retained in the survey. The procedure for selecting SEAs in each province involved:

For each stratum (province, rural/urban), a list of SEAs, ordered by SEA identification numbers was developed. The list included, for each SEA, the number of households and population and the cumulated measure of size (by adding the populations down the list).

For each stratum, a sampling interval, (I_h) was determined by dividing the total population (final cumulated measure of size), by the number of sample SEAs allocated to the stratum, .

$$I_h = \frac{\sum_{i=1}^{N_h} M_{hi}}{a_h}$$

where M_{hi} is the population in ithSEA in stratum h,

$\sum_{i=1}^{N_h} M_{hi}$ is the size of the stratum (total population in the stratum according to the 2010 census) and a_h is the number of SEAs to be selected in the stratum.

A random number between 1 and 1 was then selected. This was the random start (R) for the systematic PPS selection of EAs.

When determining the selected SEAs from the selection numbers, the calculations will be as follows: $S_{hi} = R_h + \left[I_h * (i-1)\right]$, where $i = 1,2,---,n_h$, rounded up to the next integer. The sample SEA in the stratum was the one with the cumulated measure of size closest to the selection number, without exceeding it.

Selection of Households

A frame of households was developed by listing all the households in all the selected SEAs. During the household listing, all the households were assigned sampling serial numbers. The sampling numbers were assigned sequentially within each cluster starting from 1. The total number of households in the cluster was equal to the last serial number assigned.

The following steps were followed to select the households:

Let M = the total number of households listed in the SEA
n = the number of households to be selected from each cluster

A sampling interval for the cluster will be calculated as: M/n=I
A random number (R) between 1 and the last sampling serial number was generated; the first selection was hence R
The interval was added to the random number to get the next selection: R+I
Then, the interval was added repeatedly until the desired sample size.

Estimation

In order for the survey estimates ***to*** be representative at national or any domain level, it will be necessary to weight the sample data with appropriate expansion factors. Weighted analysis of sample survey results is needed to achieve unbiased or nearly unbiased estimates of population parameters. Weights compensate for unequal selection probabilities.

Weights

The weight for each sample unit is equal to the reciprocal/ inverse of its probability of selection.

The probability of selecting cluster was calculated as;

$$P_{hi} = \frac{a_h M_{hi}}{\sum_{i=1}^{N_h} M_{hi}}$$

The weight or boosting factor is, thus, given as

$$w_{hi} = \frac{1}{P_{hi}}$$

where: P_{hi} is the first stage sampling probability of (SEA), a_h is the number of SEAs selected in stratum , is the size (population) of the i^{th} SEA in stratum h, and SM_{hi} is the total size of stratum h.

The selection probability of the household was be calculated as:

$$p_h = \frac{1}{I_h}$$

where I_h =the sampling interval for the i^{th}SEA in stratum h.

Let y_{hij} be an observation on variable Y for the j^{th} household in the i^{th} SEA of the h^{th} stratum. Then the estimated total for the h^{th} stratum is:

$$y_h = \sum_{i=1}^{a_h} \sum_{j=1}^{n_h} w_{hi} y_{hij}$$

where, y_h is the estimated total for the h^{th} stratum., w_{hi} is the weight for the j^{th} household in the i^{th} SEA of the h^{th} stratum, $j = 1 - ah$ is the number of selected clusters in the stratum, $j = 1 - nh$ is the number of sample households in the stratum.

The rural and urban estimate is given by:

$$y = \sum_{h=1}^{H} y_h$$

where, y is the overall estimate, $h = 1, \ldots, H$ is the total number of strata. For the purposes of this survey $H = 10$ (Provinces).

Data Collection Instruments

Three instruments were used in the data collection exercise, a listing form, one questionnaire for Households and Another for Individual members of the household. All were structured questionnaires consisting of a combination of closed and open-ended questions. Questionnaires were administered through face to face interviews with respondents using a CAPI. The ICT questionnaire was designed based on standard ICT indicators using the standard ITU manual for reference.

The 2018 ICT survey questionnaire was expanded to incorporate some new questions on E- waste management and specific gender related questions .The items that failed to produce useful data in previous surveys were dropped.

Recruitment and Training of field staff

Enumerators were recruited from among CSO enumerators in Provincial and District Offices, and among students in institutions of higher learning in the country. Enumerators and some supervisors underwent training to induct them into the background and purpose of the study and also to familiarize them with the questionnaires. Interviewers and supervisors attended a ten day training session in respective provinces in October 2018.

Data collection and Monitoring

Fieldwork was carried out by 10 interviewing teams each assigned to a province. Household and individual interviews were preceded by household listing in each selected cluster. Interviews were conducted only in the selected households. Fieldwork ran for a period of at least three weeks.

As a quality control measure, trainers of the field staff remained in the provinces after training to observe implementation of the fieldwork. The objective was to ensure that all field procedures and administration of the instruments was done correctly. The trainers listened to some interviews, checked a sample of completed questionnaires for errors, and discussed any problems or questions with the interview team.

Data Processing

Data Cleaning Process

Data cleaning is the process of identifying incomplete, incorrect, inaccurate, irrelevant data and then replacing, modifying or deleting the dirty data. The inconsistencies detected or removed may have been originally caused at the time of data capture, corruption in transmission or storage or by different data dictionary definitions of similar entities. The actual process of data cleaning may involve removing typographical errors or validating and correcting values against a known list of entities. Data cleaning edit programmes were prepared based on the variables that were highly prone to errors during data collection.

Tabulation and Analysis

Following the tabulation plan, output tables were generated using SPSS software.

Annexure 2: Selected ITU Core Indicators

ICT Access by age and sex

		Age less than 15			Age 15 - 24			Age 25 - 74			Age 75 and over		
		Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Do you know how to use a computer?	Yes	41,670	18,694	22,975	299,774	155,732	144,042	459,083	267,689	191,394	509	509	-
Used computer in the last 3 months	Yes	32,482	14,992	17,490	219,804	123,854	95,949	373,014	215,663	157,351	-	-	-
Have you used the internet at least once in the last 3 months?	Yes	19,564	14,608	4,956	321,752	154,833	166,919	573,641	309,221	264,420	1,402	670	732
Used internet in the last 3 months at work	Yes	-	-	-	27,629	12,087	15,542	208,166	125,370	82,797	-	-	-
Used internet in the last 3 months at place of education	Yes	4,464	2,525	1,940	33,654	14,594	19,060	35,369	17,346	18,024	-	-	-
Used internet in the last 3 months at Friend's home	Yes	3,027	3,027	-	57,396	29,040	28,356	66,759	35,930	30,829	-	-	-
Used internet in the last 3 months at Home	Yes	10,874	7,857	3,016	176,668	85,675	90,993	372,347	196,648	175,700	1,402	670	732
Used internet in the last 3 months at Community internet Access facility	Yes	732	732	-	4,201	1,035	3,165	7,040	5,912	1,128	-	-	-
Used internet in the last 3 months at Internet café	Yes	732	732	-	30,005	17,295	12,710	57,792	39,087	18,705	-	-	-
Used internet in the last 3 months anywhere on a mobile device	Yes	12,084	9,553	2,531	212,134	105,027	107,107	363,747	193,084	170,663	732	-	732
Used internet in the last 3 months at Other place	Yes	-	-	-	2,271	1,765	506	1,463	1,463	-	-	-	-
Activities undertaken on internet: Studying	Yes	9,223	7,308	1,915	105,337	52,166	53,170	181,731	100,861	80,870	-	-	-
Activities undertaken on internet: Research	Yes	9,700	7,054	2,646	143,249	70,004	73,245	267,756	148,473	119,284	-	-	-
Activities undertaken on internet: Business	Yes	-	-	-	12,787	7,505	5,282	101,104	66,745	34,359	670	670	-
Activities undertaken on internet: E-mail	Yes	1,323	1,323	-	75,527	36,053	39,475	255,777	151,961	103,816	-	-	-
Activities undertaken on internet: Social Networking	Yes	13,810	10,769	3,041	275,251	131,294	143,957	482,464	246,474	235,989	1,402	670	732
Activities undertaken on internet: Shopping Store	Yes	-	-	-	15,526	7,931	7,595	48,003	23,962	24,041	-	-	-
Activities undertaken on internet: Internet Banking	Yes	-	-	-	5,861	5,130	732	55,861	34,093	21,768	-	-	-
Activities undertaken on internet: Learning	Yes	4,981	3,182	1,799	65,752	35,636	30,117	119,171	68,186	50,984	-	-	-
Activities undertaken on internet: Gaming	Yes	5,202	4,611	592	56,144	34,100	22,044	62,375	41,169	21,206	-	-	-
Activities undertaken on internet: Downloading things	Yes	10,657	8,126	2,531	187,542	95,457	92,085	339,485	197,495	141,990	-	-	-
Activities undertaken on internet: Reading Publications	Yes	1,808	1,808	-	71,887	37,042	34,845	188,217	113,307	74,910	1,402	670	732
Activities undertaken on internet: Streaming videos and/or movies	Yes	6,765	5,582	1,183	89,831	47,953	41,878	143,725	84,735	58,990	-	-	-
Activities undertaken on internet: Watching online TV	Yes	732	732	-	25,597	13,563	12,035	53,182	36,704	16,477	-	-	-
Activities undertaken on internet: Listening to online music and/or radio (audio streaming)	Yes	5,186	5,186	-	92,756	46,493	46,263	119,343	69,254	50,089	-	-	-
Activities undertaken on internet: Accessing cloud services	Yes	1,323	732	592	24,274	12,914	11,361	63,825	32,508	31,317	-	-	-
Activities undertaken on internet: Other	Yes	-	-	-	1,323	-	1,323	5,821	5,089	732	-	-	-
used a mobile cellular telephone in the last three months	Yes	158,898	79,860	79,039	1,172,513	491,853	680,660	2,854,230	1,330,079	1,524,151	46,252	30,095	16,157
Used internet at least once a day	Yes	8,021	5,030	2,991	195,781	91,976	103,804	345,743	183,817	161,926	-	-	-
Used internet at least once a week but not every day	Yes	11,147	9,183	1,964	106,945	52,244	54,701	183,878	99,049	84,829	1,402	670	732
Used internet at least once a month	Yes	396	396	-	16,800	9,584	7,216	35,944	21,315	14,628	-	-	-
Used internet at least once in 3 months	Yes	-	-	-	2,226	1,028	1,198	8,076	5,040	3,036	-	-	-
ICT Skill:A. Copying or moving a file or folder	Yes	19514	7048	12466	175667	97641	78027	314514	182450	132064	0	0	0
ICT Skill: B. Using copy and paste tools to duplicate or move information within a document	Yes	15250	5030	10221	130498	74354	56144	270379	159787	110592	0	0	0
ICT Skill: C. Sending e-mails with attached files (e.g. document, picture, video)	Yes	4007	3275	732	81071	48705	32366	242668	140419	102249	0	0	0
ICT Skill: D. Using basic arithmetic formulae in a spreadsheet	Yes	2616	1580	1035	53887	32402	21485	127223	76379	50844	0	0	0
ICT Skill: E. Connecting and installing new devices (e.g. a modem, camera, printer)	Yes	3962	1627	2335	75155	48880	26275	164611	103859	60752	0	0	0
ICT Skill: F. Finding, downloading, installing and configuring software	Yes	6798	4766	2032	83480	57160	26320	172234	106114	66121	0	0	0
ICT Skill: G. Creating electronic presentations with presentation software	Yes	3507	2626	881	34683	21159	13524	80310	60746	19565	0	0	0
ICT Skill: H. Transferring files between a computer and other devices	Yes	8947	4639	4307	93940	62430	31510	202464	125040	77424	0	0	0
ICT Skill: I. Writing a computer program using a specialized programming language	Yes	0	0	0	17000	10483	6517	35513	26797	8716	0	0	0
ICT Skill: Other	Yes	4287	2156	2131	10727	5070	5657	9147	2730	6417	0	0	0

Annexure 2: Selected ITU Core Indicators

ICT Access by highest educational level attained and sex

		Primary			Junior Secondary			Senior Secondary			Tertiary			None			Never attended		
		Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Used computer in the last 3 months	Yes	46,726	24,902	21,824	84,353	46,431	37,922	234,620	144,752	89,867	256,483	135,702	120,781	-	-	-	3,118	2,722	396
Have you used the internet at least once in the last 3 months?	Yes	64,463	39,548	24,915	160,303	77,869	82,435	389,911	212,118	177,793	298,048	147,996	150,052	-	-	-	3,633	1,801	1,832
Used internet in the last 3 months at work	Yes	5,594	3,735	1,859	17,725	9,340	8,384	65,842	41,988	23,854	145,902	81,662	64,241	-	-	-	732	732	-
Used internet in the last 3 months at place of education	Yes	3,141	2,525	616	7,628	4,110	3,518	21,910	9,617	12,292	40,809	18,212	22,597	-	-	-	-	-	-
Used internet in the last 3 months at Friend's home	Yes	8,711	6,246	2,465	18,277	10,497	7,779	54,135	30,023	24,112	46,059	21,231	24,828	-	-	-	-	-	-
Used internet in the last 3 months at Home	Yes	35,933	18,519	17,414	92,640	44,593	48,047	230,218	127,665	102,553	200,149	98,822	101,327	-	-	-	2,351	1,251	1,101
Used internet in the last 3 months at Community internet Access facility	Yes	732	732	-	2,499	1,035	1,463	2,125	1,155	970	6,617	4,757	1,860	-	-	-	-	-	-
Used internet in the last 3 months at Internet café	Yes	1,323	1,323	-	10,955	8,108	2,847	25,901	13,476	12,425	50,349	34,207	16,143	-	-	-	-	-	-
Used internet in the last 3 months anywhere on a mobile device	Yes	39,475	23,765	15,710	101,626	48,589	53,037	263,199	146,087	117,112	182,382	87,940	94,442	-	-	-	2,014	1,282	732
Used internet in the last 3 months at Other place	Yes	732	732	-	1,035	529	506	504	504	-	1,463	1,463	-	-	-	-	-	-	-
Activities undertaken on internet: Studying	Yes	8,036	5,315	2,721	21,732	13,098	8,635	109,570	60,132	49,438	156,402	81,791	74,611	-	-	-	550	-	550
Activities undertaken on internet: Research	Yes	11,781	7,531	4,250	34,953	21,584	13,369	158,132	87,278	70,853	214,557	109,136	105,421	-	-	-	1,282	-	1,282
Activities undertaken on internet: Business	Yes	4,165	1,816	2,350	6,785	3,546	3,240	29,380	24,374	5,006	74,231	45,185	29,045	-	-	-	-	-	-
Activities undertaken on internet: E-mail	Yes	3,926	2,248	1,678	19,811	11,428	8,383	115,592	73,536	42,056	193,298	102,125	91,174	-	-	-	-	-	-
Activities undertaken on internet: Social Networking	Yes	47,674	27,205	20,469	135,223	62,623	72,600	335,619	176,488	159,131	251,327	121,641	129,686	-	-	-	3,083	1,251	1,832
Activities undertaken on internet: Shopping Store	Yes	1,538	-	1,538	2,671	1,208	1,463	14,068	8,950	5,118	45,252	21,735	23,517	-	-	-	-	-	-
Activities undertaken on internet: Internet Banking	Yes	616	616	-	2,055	1,323	732	9,257	7,102	2,155	49,793	30,181	19,613	-	-	-	-	-	-
Activities undertaken on internet: Learning	Yes	7,172	3,804	3,368	14,308	8,973	5,335	69,915	38,714	31,202	98,508	55,513	42,995	-	-	-	-	-	-
Activities undertaken on internet: Gaming	Yes	7,278	5,172	2,106	24,154	16,267	7,887	52,000	34,567	17,432	40,289	23,873	16,416	-	-	-	-	-	-
Activities undertaken on internet: Downloading things	Yes	26,175	18,359	7,816	72,944	39,081	33,863	230,069	136,134	93,934	205,933	106,222	99,711	-	-	-	2,564	1,282	1,282
Activities undertaken on internet: Reading Publications	Yes	7,654	6,526	1,128	27,282	13,784	13,498	93,656	62,038	31,618	133,990	70,479	63,511	-	-	-	732	-	732
Activities undertaken on internet: Streaming videos and/or movies	Yes	12,962	8,145	4,817	37,680	18,962	18,718	95,209	61,611	33,598	92,458	48,270	44,187	-	-	-	2,014	1,282	732
Activities undertaken on internet: Watching online TV	Yes	1,859	1,463	396	4,633	1,886	2,747	30,540	21,587	8,953	42,479	26,062	16,417	-	-	-	-	-	-
Activities undertaken on internet: Listening to online music and/or radio (audio streaming)	Yes	12,544	8,318	4,225	36,113	19,632	16,481	87,756	52,173	35,583	79,591	40,259	39,332	-	-	-	1,282	550	732
Activities undertaken on internet: Accessing cloud services	Yes	2,927	2,195	732	4,554	2,722	1,832	24,936	14,411	10,525	57,006	26,826	30,180	-	-	-	-	-	-
Activities undertaken on internet: Other	Yes	732	732	-	504	504	-	1,993	670	1,323	3,916	3,184	732	-	-	-	-	-	-
used a mobile cellular telephone in the last three months	Yes	1,600,908	685,640	915,268	1,034,477	473,163	561,314	1,013,495	507,810	505,685	386,674	191,308	195,366	1,522	1,013	509	194,378	72,952	121,425
At least once a day	Yes	28,213	16,589	11,624	73,428	35,383	38,044	232,238	125,615	106,624	213,653	102,505	111,148	-	-	-	2,014	732	1,282
At least once a week but not every day	Yes	27,276	16,040	11,237	66,634	33,771	32,863	139,497	75,314	64,183	68,864	35,470	33,394	-	-	-	1,101	550	550
At least once a month	Yes	7,426	5,372	2,055	17,450	8,208	9,242	15,639	9,384	6,255	12,106	7,813	4,293	-	-	-	519	519	-
At least once in 3 months	Yes	1,548	1,548	-	2,792	506	2,286	2,537	1,806	732	3,426	2,209	1,217	-	-	-	-	-	-
ICT Skill:A. Copying or moving a file or folder	Yes	28,192	12,557	15,634	61,717	32,579	29,138	191,010	119,640	71,369	225,659	119,640	106,018	-	-	-	3,118	2,722	396
ICT Skill: B. Using copy and paste tools to duplicate or move information within a document	Yes	17,942	8,184	9,759	37,734	22,156	15,578	149,477	94,198	55,279	208,984	112,643	96,341	-	-	-	1,990	1,990	-
ICT Skill: C. Sending e-mails with attached files (e.g. document, picture, video)	Yes	7,060	4,377	2,683	17,484	10,486	6,999	113,706	74,969	38,737	189,496	102,568	86,928	-	-	-	-	-	-
ICT Skill: D. Using basic arithmetic formulae in a spreadsheet	Yes	2,177	1,142	1,035	14,270	9,231	5,039	55,259	32,697	22,561	112,021	67,291	44,729	-	-	-	-	-	-
ICT Skill: E. Connecting and installing new devices (e.g. a modem, camera, printer)	Yes	5,095	2,941	2,154	14,779	10,513	4,266	86,887	59,388	27,499	136,236	80,793	55,443	-	-	-	732	732	-
ICT Skill: F. Finding, downloading, installing and configuring software	Yes	8,389	7,375	1,014	14,545	10,736	3,809	100,910	68,410	32,499	137,205	80,055	57,151	-	-	-	1,463	1,463	-
ICT Skill: G. Creating electronic presentations with presentation software	Yes	3,055	2,570	485	4,964	2,197	2,767	31,926	24,893	7,033	78,554	54,871	23,684	-	-	-	-	-	-
ICT Skill: H. Transferring files between a computer and other devices	Yes	11,596	7,289	4,307	26,988	18,553	8,435	105,724	71,791	33,934	159,915	93,746	66,169	-	-	-	1,128	732	396
ICT Skill: I. Writing a computer program using a specialized programming language	Yes	-	-	-	1,155	670	485	15,127	12,428	2,699	36,231	24,182	12,049	-	-	-	-	-	-
ICT Skill: Other	Yes	7,150	3,604	3,546	3,488	2,469	1,019	7,547	1,875	5,673	5,976	2,008	3,967	-	-	-	-	-	-

Annexure 2: Selected ITU Core Indicators

ICT Access by employment status and sex

		Employed			Unemployed			Self Employed			Employer			Full Time Student			Too young/old to work		
		Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Used computer in the last 3 months	Yes	253,819	153,625	100,195	121,129	57,168	63,961	76,731	52,720	24,011	616	616	-	163,107	85,200	77,907	9,897	5,179	4,718
Have you used the internet at least once in the last 3 months?	Yes	322,707	196,569	126,138	250,502	86,227	164,275	169,859	101,995	67,864	1,877	1,877	-	158,866	86,956	71,910	12,548	5,709	6,839
Used internet in the last 3 months at work	Yes	179,946	105,781	74,166	18,731	9,104	9,627	27,964	18,679	9,285	616	616	-	7,806	3,276	4,530	732	-	732
Used internet in the last 3 months at place of education	Yes	26,109	13,756	12,353	9,093	2,442	6,651	4,639	3,497	1,142	-	-	-	32,183	14,769	17,414	1,463	-	1,463
Used internet in the last 3 months at Friend's home	Yes	50,674	30,119	20,555	30,644	11,890	18,754	15,266	7,719	7,547	-	-	-	28,543	17,678	10,865	2,055	592	1,463
Used internet in the last 3 months at Home	Yes	203,192	116,375	86,817	153,819	55,164	98,656	108,237	65,616	42,621	1,877	1,877	-	84,588	48,530	36,058	9,577	3,289	6,288
Used internet in the last 3 months at Community internet Access facility	Yes	5,885	4,757	1,128	732	-	732	1,640	1,155	485	-	-	-	3,715	1,767	1,948	-	-	-
Used internet in the last 3 months at Internet café	Yes	44,234	29,167	15,067	13,903	6,812	7,091	12,279	10,164	2,115	-	-	-	16,896	10,487	6,410	1,217	485	732
Used internet in the last 3 months anywhere on a mobile device	Yes	206,891	126,301	80,589	162,337	60,432	101,905	110,553	66,332	44,221	-	-	-	101,184	50,960	50,224	7,731	3,637	4,093
Used internet in the last 3 months at Other place	Yes	-	-	-	1,463	1,463	-	-	-	-	529	529	-	1,742	1,235	506	-	-	-
Activities undertaken on internet: Studying	Yes	129,364	75,843	53,521	63,043	29,567	33,477	24,055	14,524	9,531	616	616	-	75,874	39,193	36,681	3,337	592	2,745
Activities undertaken on internet: Research	Yes	176,958	101,252	75,705	97,317	39,622	57,696	51,186	33,705	17,481	1,348	1,348	-	87,550	46,618	40,932	6,346	2,984	3,362
Activities undertaken on internet: Business	Yes	52,848	36,046	16,803	15,699	9,042	6,658	39,050	26,219	12,830	-	-	-	5,808	2,458	3,350	1,155	1,155	-
Activities undertaken on internet: E-mail	Yes	183,161	111,287	71,874	64,383	29,062	35,320	43,594	28,175	15,419	-	-	-	40,273	20,328	19,946	1,217	485	732
Activities undertaken on internet: Social Networking	Yes	280,086	168,147	111,939	214,313	70,419	143,893	133,305	72,749	60,555	1,877	1,877	-	133,181	70,791	62,391	10,165	5,224	4,940
Activities undertaken on internet: Shopping Store	Yes	32,383	15,908	16,475	10,930	4,897	6,033	14,011	7,423	6,588	-	-	-	6,205	3,665	2,540	-	-	-
Activities undertaken on internet: Internet Banking	Yes	43,282	26,047	17,235	1,940	1,940	-	14,042	8,778	5,265	-	-	-	2,458	2,458	-	-	-	-
Activities undertaken on internet: Learning	Yes	83,100	50,271	32,829	42,018	15,386	26,632	20,529	15,292	5,237	-	-	-	42,305	25,384	16,921	1,952	670	1,282
Activities undertaken on internet: Gaming	Yes	38,272	26,855	11,416	29,008	18,234	10,774	20,747	12,364	8,383	-	-	-	32,830	20,293	12,536	2,865	2,133	732
Activities undertaken on internet: Downloading things	Yes	223,331	137,476	85,855	120,060	46,693	73,367	89,815	58,286	31,529	616	616	-	95,643	54,431	41,212	8,220	3,576	4,644
Activities undertaken on internet: Reading Publications	Yes	125,268	77,414	47,854	55,626	22,463	33,163	43,574	30,543	13,031	-	-	-	36,959	21,252	15,707	1,887	1,155	732
Activities undertaken on internet: Streaming videos and/or movies	Yes	90,613	56,786	33,827	59,661	27,531	32,130	41,573	26,529	15,044	-	-	-	44,674	25,087	19,587	3,802	2,338	1,463
Activities undertaken on internet: Watching online TV	Yes	36,039	23,818	12,221	20,467	12,098	8,369	10,637	8,119	2,518	-	-	-	11,636	6,963	4,672	732	-	732
Activities undertaken on internet: Listening to online music and/or radio (audio streaming)	Yes	74,076	47,187	26,889	61,559	26,403	35,157	34,991	20,602	14,389	-	-	-	42,612	23,425	19,187	4,048	3,316	732
Activities undertaken on internet: Accessing cloud services	Yes	49,777	26,286	23,491	15,499	7,232	8,267	10,103	4,858	5,245	-	-	-	14,042	7,776	6,266	-	-	-
Activities undertaken on internet: Other	Yes	2,452	2,452	-	2,786	1,463	1,323	1,174	1,174	-	-	-	-	732	-	732	-	-	-
used a mobile cellular telephone in the last three months	Yes	712,119	459,504	252,614	1,319,419	336,916	982,503	1,564,965	822,255	742,710	10,015	5,475	4,540	542,097	270,510	271,588	83,279	37,227	46,052
At least once a day	Yes	217,845	134,264	83,581	144,149	49,521	94,628	89,197	49,540	39,657	1,348	1,348	-	90,968	43,589	47,379	6,038	2,561	3,477
At least once a week but not every day	Yes	86,505	51,027	35,478	90,170	31,850	58,320	61,876	38,506	23,370	-	-	-	58,902	37,205	21,697	5,919	2,557	3,362
At least once a month	Yes	14,333	7,985	6,348	12,345	3,618	8,726	16,852	12,410	4,442	529	529	-	8,490	6,161	2,329	592	592	-
At least once in 3 months	Yes	4,024	3,293	732	3,838	1,238	2,600	1,934	1,538	396	-	-	-	506	-	506	-	-	-
ICT Skill:A. Copying or moving a file or folder	Yes	219,471	133,125	86,346	91,088	42,561	48,526	63,248	42,352	20,896	-	-	-	129,181	65,137	64,044	6,708	3,963	2,745
ICT Skill: B. Using copy and paste tools to duplicate or move information within a document	Yes	195,452	119,053	76,399	69,137	36,275	32,862	46,378	31,336	15,042	-	-	-	101,014	50,374	50,640	4,147	2,133	2,014
ICT Skill: C. Sending e-mails with attached files (e.g. document, picture, video)	Yes	169,941	100,185	69,755	60,443	32,162	28,280	42,764	30,689	12,076	-	-	-	51,412	26,908	24,504	3,186	2,454	732
ICT Skill: D. Using basic arithmetic formulae in a spreadsheet	Yes	92,660	58,624	34,036	27,653	14,741	12,912	24,448	16,200	8,248	-	-	-	37,564	20,127	17,437	1,402	670	732
ICT Skill: E. Connecting and installing new devices (e.g. a modem, camera, printer)	Yes	122,319	78,018	44,301	43,513	25,244	18,269	28,895	21,343	7,551	-	-	-	45,771	27,993	17,778	3,231	1,768	1,463
ICT Skill: F. Finding, downloading, installing and configuring software	Yes	129,173	83,390	45,783	46,669	26,365	20,304	32,244	20,579	11,665	-	-	-	51,866	36,608	15,258	2,561	1,098	1,463
ICT Skill: G. Creating electronic presentations with presentation software	Yes	59,913	44,517	15,396	17,001	11,262	5,739	16,585	13,773	2,811	616	616	-	23,653	14,362	9,291	732	-	732
ICT Skill: H. Transferring files between a computer and other devices	Yes	149,505	94,665	54,840	53,096	30,245	22,851	39,165	27,623	11,542	616	616	-	61,792	37,785	24,008	1,176	1,176	-
ICT Skill: I. Writing a computer program using a specialized programming language	Yes	27,408	20,295	7,113	8,268	6,275	1,993	7,194	5,730	1,463	-	-	-	8,973	4,309	4,664	670	670	-
ICT Skill: Other	Yes	4,345	2,008	2,337	3,882	-	3,882	3,442	1,170	2,272	-	-	-	11,982	6,777	5,205	509	-	509

Annexure 2: Selected ITU Core Indicators

ICT Access by sex and rural/urban

			Sex		Rural			Urban		
		All Individuals	Male	Female	Total	Male	Female	Total	Male	Female
Used computer in the last 3 months	Yes	625,300	354,509	270,791	124,514	74,730	49,784	500,786	279,779	221,007
Have you used the internet at least once in the last 3 months?	Yes	916359	479332	437027	186860	122087	64773	729499	357245	372253
Used internet in the last 3 months at work	Yes	235,795	137,456	98,339	30,278	18,193	12,085	205,517	119,263	86,254
Used internet in the last 3 months at place of education	Yes	73,488	34,464	39,024	17,196	10,296	6,900	56,292	24,168	32,124
Used internet in the last 3 months at Friend's home	Yes	127,182	67,998	59,185	22,438	14,585	7,853	104,745	53,413	51,332
Used internet in the last 3 months at Home	Yes	561,291	290,850	270,440	106,779	68,842	37,936	454,512	222,008	232,504
Used internet in the last 3 months at Community internet Access facility	Yes	11,973	7,680	4,293	1,079	1,079	-	10,893	6,600	4,293
Used internet in the last 3 months at Internet café	Yes	88,529	57,114	31,414	13,707	9,674	4,033	74,821	47,440	27,381
Used internet in the last 3 months anywhere on a mobile device	Yes	588,696	307,663	281,033	105,128	70,519	34,609	483,568	237,144	246,424
Used internet in the last 3 months at Other place	Yes	3,734	3,228	506	1,539	1,033	506	2,195	2,195	-
Activities undertaken on internet: Studying	Yes	296,290	160,335	135,955	56,014	34,907	21,107	240,276	125,428	114,848
Activities undertaken on internet: Research	Yes	420,705	225,530	195,175	71,984	43,913	28,071	348,721	181,617	167,104
Activities undertaken on internet: Business	Yes	114,561	74,920	39,641	10,731	9,201	1,530	103,830	65,719	38,111
Activities undertaken on internet: E-mail	Yes	332,628	189,337	143,291	51,717	33,170	18,547	280,911	156,167	124,744
Activities undertaken on internet: Social Networking	Yes	772,927	389,208	383,719	146,123	92,132	53,991	626,804	297,076	329,727
Activities undertaken on internet: Shopping Store	Yes	63,529	31,893	31,636	7,169	3,791	3,378	56,360	28,102	28,258
Activities undertaken on internet: Internet Banking	Yes	61,722	39,222	22,500	11,074	6,536	4,538	50,648	32,687	17,961
Activities undertaken on internet: Learning	Yes	189,904	107,004	82,900	44,046	27,411	16,636	145,858	79,593	66,265
Activities undertaken on internet: Gaming	Yes	123,721	79,880	43,841	19,440	13,464	5,976	104,281	66,416	37,865
Activities undertaken on internet: Downloading things	Yes	537,684	301,078	236,606	100,134	69,206	30,928	437,550	231,872	205,678
Activities undertaken on internet: Reading Publications	Yes	263,313	152,827	110,486	51,608	34,716	16,893	211,705	118,111	93,593
Activities undertaken on internet: Streaming videos and/or movies	Yes	240,321	138,270	102,051	41,879	31,512	10,367	198,442	106,758	91,684
Activities undertaken on internet: Watching online TV	Yes	79,511	50,999	28,512	12,753	9,308	3,445	66,758	41,691	25,067
Activities undertaken on internet: Listening to online music and/or radio (audio streaming)	Yes	217,286	120,933	96,353	35,025	26,781	8,244	182,261	94,152	88,109
Activities undertaken on internet: Accessing cloud services	Yes	89,422	46,153	43,269	10,587	6,171	4,416	78,835	39,982	38,853
Activities undertaken on internet: Other	Yes	7,144	5,089	2,055	1,008	1,008	-	6,137	4,082	2,055
used a mobile cellular telephone in the last three months	Yes	4,231,893	1,931,886	2,300,007	2,015,020	1,048,677	966,342	2,216,874	883,209	1,333,665
Used internet at least once a day	Yes	549,545	280,824	268,722	87,851	54,194	33,657	461,694	226,630	235,064
Used internet at least once a week but not every day	Yes	303,372	161,145	142,226	80,905	54,688	26,217	222,466	106,457	116,010
Used internet at least once a month	Yes	53,140	31,296	21,845	13,152	9,155	3,997	39,988	22,141	17,847
Used internet at least once in 3 months	Yes	10,302	6,068	4,234	4,952	4,050	902	5,350	2,018	3,332
ICT Skill:A. Copying or moving a file or folder	Yes	509,695	287,138	222,557	92,050	56,362	35,688	417,645	230,777	186,869
ICT Skill: B. Using copy and paste tools to duplicate or move information within a document	Yes	416,127	239,171	176,957	71,749	43,217	28,532	344,378	195,954	148,424
ICT Skill: C. Sending e-mails with attached files (e.g. document, picture, video)	Yes	327,746	192,399	135,347	45,222	31,489	13,733	282,524	160,910	121,614
ICT Skill: D. Using basic arithmetic formulae in a spreadsheet	Yes	183,726	110,362	73,364	36,749	26,437	10,312	146,977	83,925	63,053
ICT Skill: E. Connecting and installing new devices (e.g. a modem, camera, printer)	Yes	243,728	154,366	89,362	39,798	27,510	12,287	203,931	126,856	77,075
ICT Skill: F. Finding, downloading, installing and configuring software	Yes	262,512	168,039	94,473	44,515	31,079	13,436	217,997	136,960	81,037
ICT Skill: G. Creating electronic presentations with presentation software	Yes	118,500	84,530	33,970	18,011	14,938	3,073	100,489	69,593	30,897
ICT Skill: H. Transferring files between a computer and other devices	Yes	305,351	192,110	113,241	53,963	39,932	14,031	251,388	152,178	99,211
ICT Skill: I. Writing a computer program using a specialized programming language	Yes	52,513	37,280	15,233	7,983	5,606	2,377	44,530	31,674	12,856
ICT Skill: Other	Yes	24,161	9,956	14,205	9,538	4,560	4,979	14,622	5,396	9,226

ANNEXURE 3: HOUSEHOLD LEVEL AND INDIVIDUAL LEVEL QUESTIONNAIRE

ZICTA
ZAMBIA INFORMATION AND COMMUNICATIONS TECHNOLOGY AUTHORITY

REPUBLIC OF ZAMBIA
Central Statistical Office

STATIC TEXT

2018 INFORMATION AND COMMUNICATIONS TECHNOLOGY SURVEY

GPS Coordinates	GPS GPS N _____ W _____ A _____
CLUSTER NUMBER	NUMERIC: INTEGER SCOPE: IDENTIFYING CLUSTER _____
1. PROVINCE NAME	SINGLE-SELECT SCOPE: IDENTIFYING PROV 01 ○ Central 02 ○ Copperbelt 03 ○ Eastern 04 ○ Luapula 05 ○ Lusaka 06 ○ Muchinga 07 ○ Northern 08 ○ North Western 09 ○ Southern 10 ○ Western
2. DISTRICT NAME	TEXT SCOPE: IDENTIFYING DIST _____
3. CONSTITUENCY NAME	TEXT SCOPE: IDENTIFYING CONS _____
4. WARD NAME	TEXT SCOPE: IDENTIFYING WARD _____
5. REGION	SINGLE-SELECT SCOPE: IDENTIFYING REGION 01 ○ Rural 02 ○ Urban
6. CSA NUMBER	NUMERIC: INTEGER SCOPE: IDENTIFYING CSA _____

7. SEA NUMBER

NUMERIC: INTEGER
SCOPE: IDENTIFYING
SEA

8. HOUSEHOLD SERIAL NUMBER

NUMERIC: INTEGER
HHN

9. LOCALITY OR VILLAGE NAME

E1 `self.Length > 2`
M1 Locality or Village name is too short

TEXT
LOCALITY

10. NAME OF THE HOUSEHOLD HEAD

E1 `self.Length > 2`
M1 Head's name is too short

TEXT
SCOPE: HIDDEN
HEAD

11a. Is %HEAD% the main respondent?

SINGLE-SELECT
SCOPE: HIDDEN
HEADMAIN
01 ○ Yes
02 ○ No

HOUSEHOLD ROSTER

HR1. Please give me the names of all persons who usually live in this household. Start with the head of the household and include persons who have been living in this household for six months or more. Include usual members who are away visiting, in hospital, at boarding schools or college or university etc.

I Also include visitors intending to live for 6 months or more

LIST
HR1

HOUSEHOLD ROSTER

Roster: HOUSEHOLD ROSTER

generated by list question HR1

persons

HR2. What is the relationship of %rostertitle% to the Head of the household?

E1 `self != 1 || (@rowcode==1 && self == 1)`
M1 Firts person must be the head of the household.
E2 `persons.Count(x=>x.HR2 == 1) == 1`
M2 There must be one household head.

SINGLE-SELECT
HR2
01 ○ Head
02 ○ Spouse
03 ○ Own Child
04 ○ Step Child
05 ○ Grandchild
06 ○ Son-In-Law/Daughter-In-Law
07 ○ Brother Or Sister
08 ○ Cousin
09 ○ Niece/Nephew
10 ○ Parent
11 ○ Parent-In-Law
12 ○ Uncle/Aunt
13 ○ Other Relative
14 ○ Not Related
15 ○ Don't Know

HR3. Is %rostertitle% Male or female?

E1 `!(HR2==1 && persons.Count(x=>x.HR2==2 && x.HR3==HR3)>0) && !(HR2==2 && persons.Count(x=>x.HR2==1 && x.HR3==HR3)>0)`
M1 The sex of the head and spouse cannot be the same

SINGLE-SELECT
HR3
01 ○ Male
02 ○ Female

HR4. How old was %rostertitle% at his/her last birthday? (In completed years)

NUMERIC: INTEGER HR4

I Enter 0 if less than one year
W1 `self <= 100`
M1 Age seems too high
E2 `self >= 0`
M2 Age must be 0 or greater
E3 `!(HR2.InList(1,2)) || (HR4 >= 10)`
M3 The head must be at least 10 years old
E4 `persons.Count(x=>x.HR2==1 && x.HR4 < HR4 + 13 && HR2==3) ==0`
M4 Any child should be at least 12 years younger than the head
E5 `persons.Count(x=>x.HR2==1 && x.HR4 < HR4 + 25 && HR2==5) ==0`
M5 Any grandhild should be at least 24 years younger than the head
E6 `persons.Count(x=>x.HR2==1 && x.HR4 + 12 > HR4 && HR2.InList(10,11))==0`
M6 A parent or parent in law must be at least 12 years older than the head.

HR5. Does %rostertitle% have any disability?

SINGLE-SELECT HR5
01 ○ Yes
02 ○ No

HR6. What types of disability(s) does %rostertitle% have?

E `HR5 == 1`

MULTI-SELECT HR6
01 ☐ Blind
02 ☐ Partially sighted
03 ☐ Deaf
04 ☐ Dumb
05 ☐ Hard of hearing
06 ☐ Mental illness
07 ☐ Intellectual
08 ☐ Speech impaired
09 ☐ Physically disabled
10 ☐ Mentally retarded

HR7. Is %rostertitle% albino?

SINGLE-SELECT HR7
01 ○ Yes
02 ○ No

HR8. What is %rostertitle%'s Marital Status?

E `HR4 >= 12`
E1 `!(HR2==1 && persons.Count(x=>x.HR2==2 && x.HR8!=HR8)>0) && !(HR2==2 && persons.Count(x=>x.HR2==1 && x.HR8!=HR8)>0)`
M1 Marital statuse of head and spouse should be the same
E2 `!(HR2 == 2 && HR8.InList(4,5))`
M2 A spouse cannot be divorced or widowed

SINGLE-SELECT HR8
01 ○ Never married
02 ○ Married
03 ○ Separated
04 ○ Divorced
05 ○ Widowed
06 ○ Cohabiting

HR9. Is %rostertitle% available for the individual interview?

E `HR4 >= 10`

SINGLE-SELECT RSTATUS
01 ○ Available
02 ○ Refused
03 ○ Non Contact
04 ○ Not currently available

HR9. Who is the MAIN RESPONDENT?

SINGLE-SELECT: LINKED RESPONDENT

STATIC TEXT

E `!(persons.Count(x=>x.HR2 == null || x.HR3 == null || x.HR4 == null || x.HR5 == null) == 0 && RESPONDENT != null)`

You must complete the household roster before you can proceed.

HOUSEHOLD MEMBERS' CHARACTERISTICS

E `persons.Count(x=>x.HR2 == null || x.HR3 == null || x.HR4 == null || x.HR5 == null) == 0 && RESPONDENT != null`

HOUSEHOLD MEMBERS' CHARACTERISTICS

Roster: MEMBERS

generated by list question HR1 — `members`

E `HR4 >= 10`

HMC1. Has %rostertitle% ever attended school?	SINGLE-SELECT `HMC1` 01 ○ Yes 02 ○ No
HMC2. What is the highest level of education %rostertitle% attained? I If the level of education the respondent gives you follows the old grade system, e.g. Standard Four (4), and you need to convert to the current system, refer to the manual. E `HMC1==1`	SINGLE-SELECT `HMC2` 00 ○ Pre School 01 ○ Grade 1 02 ○ Grade 2 03 ○ Grade 3 04 ○ Grade 4 05 ○ Grade 5 06 ○ Grade 6 07 ○ Grade 7 08 ○ Grade 8 09 ○ Grade 9 10 ○ Grade 10 11 ○ Grade 11 12 ○ Grade 12 GCE (O) 13 ○ Grade 12 GCE (A) 14 ○ Certificate 15 ○ Diploma And 4 other symbols [1]
HMC3. Is %rostertitle% able to read and write in any language? E `!(HMC2 >= 7)`	SINGLE-SELECT `HMC3` 01 ○ Yes 02 ○ No
HMC4. What is %rostertitle%'s main employment status?	SINGLE-SELECT `HMC4` 01 ○ Employed 02 ○ Unemployed 03 ○ Self Employed 04 ○ Employer 05 ○ Full Time Student 06 ○ Too young/old to work
HMC5. What is %rostertitle%'s monthly income from all sources? (Zambian Kwacha) I Enter -9 if there is no response E `HMC4 != 5 && HMC4 != 6` E1 `self == -9 || self >= 0` M1 Amount in kwacha should be 0 or more.	NUMERIC: DECIMAL `HMC5`

ICT USAGE BY HOUSEHOLD

Q1. What form(s) of electric energy is used by the household?	MULTI-SELECT: YES/NO Q01 01 ☐ Utility power service 02 ☐ Solar 03 ☐ Generator 04 ☐ Battery 06 ☐ Other
Q1s. Specify other form of electric energy used by the household. E Q01.Yes.Contains(6)	TEXT Q01S
Q2. What is the main electric energy used by the household? F Q01.Yes.Contains(@optioncode) E Q01.Yes.Count() > 1	SINGLE-SELECT Q02 01 ○ Utility power service 02 ○ Solar 03 ○ Generator 04 ○ Battery 06 ○ Other
Q2s. Specify main electric energy used. E Q02 == 6	TEXT Q02S
Q3. Does this household or any member of this household have a working Television set (TV)?	SINGLE-SELECT Q03 01 ○ Yes 02 ○ No
Q4. Does this household have access to any broadcasting services using the Television set? E Q03 == 1	SINGLE-SELECT Q04 01 ○ Yes 02 ○ No
Q5. Which of the following local broadcasting services are accessed by the household? E Q03 == 1 && Q04 == 1	MULTI-SELECT: YES/NO Q05 01 ☐ ZNBC 02 ☐ MUVI 03 ☐ Q-TV 04 ☐ Prime TV 05 ☐ Diamond TV 06 ☐ ABN 07 ☐ City TV 08 ☐ Other local station
Q5s. Specify other local station. E Q05.Yes.Contains(8)	TEXT Q05S
Q6. In your view, how does the household rate the quality of ZNBC TV reception? E Q05.Yes.Contains(1)	SINGLE-SELECT Q06 01 ○ Good 02 ○ Fair 03 ○ Poor/Bad

Q7. Does this household have any of the following broadcasting services?

E Q03 == 1 && Q04 == 1

MULTI-SELECT: YES/NO Q07

01 ☐ DSTV
02 ☐ GoTV
03 ☐ MUVI TV
04 ☐ Topstar
05 ☐ Free-to-Air
06 ☐ Zuku TV
07 ☐ DTH – Direct-to-Home Satellite TV
08 ☐ ZNBC Set-Top-Box (Decoder)
09 ☐ IP TV (eg NetFlix)
10 ☐ Other

Q7s. Specify other broadcasting service the household has.

E Q07.Yes.Contains(10)

TEXT Q07s

Q8-1. How much are you paying for DSTV per month? (Amount in Zambian Kwacha)

E Q07.Yes.Contains(1)
E1 self > 0
M1 Amount in kwacha must be more than 0.

NUMERIC: DECIMAL Q08_01

Q8-2. How much are you paying for GoTV per month? (Amount in Zambian Kwacha)

E Q07.Yes.Contains(2)
E1 self > 0
M1 Amount in kwacha must be more than 0.

NUMERIC: DECIMAL Q08_02

Q8-3. How much are you paying for MUVI TV per month? (Amount in Zambian Kwacha)

E Q07.Yes.Contains(3)
E1 self > 0
M1 Amount in kwacha must be more than 0.

NUMERIC: DECIMAL Q08_03

Q8-4. How much are you paying for TopStar per month? (Amount in Zambian Kwacha)

E Q07.Yes.Contains(4)
E1 self > 0
M1 Amount in kwacha must be more than 0.

NUMERIC: DECIMAL Q08_04

Q8-5. How much are you paying for Free-to-Air per month? (Amount in Zambian Kwacha)

E Q07.Yes.Contains(5)

NUMERIC: DECIMAL Q08_05
SCOPE: HIDDEN

Q8-6. How much are you paying for Zuku TV per month? (Amount in Zambian Kwacha)

E Q07.Yes.Contains(6)
E1 self > 0
M1 Amount in kwacha must be more than 0.

NUMERIC: DECIMAL Q08_06

Q8-7. How much are you paying for DTH – Direct-to-Home Satellite TV per month? (Amount in Zambian Kwacha)

E Q07.Yes.Contains(7)
E1 self > 0
M1 Amount in kwacha must be more than 0.

NUMERIC: DECIMAL Q08_07

Q8-8. How much are you paying for ZNBC Set-Top-Box (Decoder) per month? (Amount in Zambian Kwacha)

NUMERIC: DECIMAL Q08_08

E Q07.Yes.Contains(8)
E1 self > 0
M1 Amount in kwacha must be more than 0.

Q8-9. How much are you paying for IP TV service per month? (Amount in Zambian Kwacha)

NUMERIC: DECIMAL Q08_09

E Q07.Yes.Contains(9)
E1 self > 0
M1 Amount in kwacha must be more than 0.

Q8-10. How much are you paying for Other TV service (%Q07S%) per month? (Amount in Zambian Kwacha)

NUMERIC: DECIMAL Q08_10

E Q07.Yes.Contains(10)
E1 self > 0
M1 Amount in kwacha must be more than 0.

Q9. Is subscription affordable for the following TV service(s) the household pays for?

MULTI-SELECT: YES/NO Q09

F Q07.Yes.Contains(@optioncode)
E Q07.Yes.Count() > 0

01 ☐ ☐ DSTV
02 ☐ ☐ GoTV
03 ☐ ☐ MUVI TV
04 ☐ ☐ Topstar
06 ☐ ☐ Zuku TV
07 ☐ ☐ DTH – Direct-to-Home Satellite TV
08 ☐ ☐ ZNBC Set-Top-Box (Decoder)
09 ☐ ☐ IP TV (eg NetFlix)
10 ☐ ☐ Other

Q10-1. How much is the household willing to pay per month for DSTV? (Amount in Zambian Kwacha)

NUMERIC: DECIMAL Q10_01

E Q09.No.Contains(1)
E1 self < Q08_01
M1 An amount less than %Q08_01% which was not affordable is expected.
E2 self >= 0
M2 Amount in kwacha must be 0 or more.

Q10-2. How much is the household willing to pay per month for GoTV? (Amount in Zambian Kwacha)

NUMERIC: DECIMAL Q10_02

E Q09.No.Contains(2)
E1 self < Q08_02
M1 An amount less than %Q08_02% which was not affordable is expected.
E2 self >= 0
M2 Amount in kwacha must be 0 or more.

Q10-3. How much is the household willing to pay per month for MUVI TV? (Amount in Zambian Kwacha)

NUMERIC: DECIMAL Q10_03

E Q09.No.Contains(3)
E1 self < Q08_03
M1 An amount less than %Q08_03% which was not affordable is expected.
E2 self >= 0
M2 Amount in kwacha must be 0 or more.

Q10-4. How much is the household willing to pay per month for Topstar? (Amount in Zambian Kwacha)

NUMERIC: DECIMAL Q10_04

E Q09.No.Contains(4)
E1 self < Q08_04
M1 An amount less than %Q08_04% which was not affordable is expected.
E2 self >= 0
M2 Amount in kwacha must be 0 or more.

Q10-5. How much is the household willing to pay per month for Free-to-Air? (Amount in Zambian Kwacha)

NUMERIC: DECIMAL Q10_05

E Q09.No.Contains(5)
E1 self < Q08_05
M1 An amount less than %Q08_05% which was not affordable is expected.
E2 self >= 0
M2 Amount in kwacha must be 0 or more.

Q10-6. How much is the household willing to pay per month for Zuku TV? (Amount in Zambian Kwacha)

NUMERIC: DECIMAL Q10_06

E Q09.No.Contains(6)
E1 self < Q08_06
M1 An amount less than %Q08_06% which was not affordable is expected.
E2 self >= 0
M2 Amount in kwacha must be 0 or more.

Q10-7. How much is the household willing to pay per month for DTH – Direct-to-Home Satellite TV? (Amount in Zambian Kwacha)

NUMERIC: DECIMAL Q10_07

E Q09.No.Contains(7)
E1 self < Q08_07
M1 An amount less than %Q08_07% which was not affordable is expected.
E2 self >= 0
M2 Amount in kwacha must be 0 or more.

Q10-8. How much is the household willing to pay per month for ZNBC Set-Top-Box (Decoder)? (Amount in Zambian Kwacha)

NUMERIC: DECIMAL Q10_08

E Q09.No.Contains(8)
E1 self < Q08_08
M1 An amount less than %Q08_08% which was not affordable is expected.
E2 self >= 0
M2 Amount in kwacha must be 0 or more.

Q10-9. How much is the household willing to pay per month for IP TV (eg NetFlix)? (Amount in Zambian Kwacha)

NUMERIC: DECIMAL Q10_09

E Q09.No.Contains(9)
E1 self < Q08_09
M1 An amount less than %Q08_09% which was not affordable is expected.
E2 self >= 0
M2 Amount in kwacha must be 0 or more.

Q10-10. How much is the household willing to pay per month for Other (%Q07S%)? (Amount in Zambian Kwacha)

NUMERIC: DECIMAL Q10_10

E Q09.No.Contains(10)
E1 self < Q08_10
M1 An amount less than %Q08_10% which was not affordable is expected.
E2 self >= 0
M2 Amount in kwacha must be 0 or more.

Q11. Does this household or any member of this household have a working radio?	SINGLE-SELECT Q11 01 ○ Yes 02 ○ No
Q12. Does the household use the radio to access... E Q11 == 1	MULTI-SELECT: YES/NO Q12 01 ☐/☐ PUBLIC STATIONS (ZNBC RADIO STATIONS) 02 ☐/☐ COMMERCIAL RADIO STATIONS (Phoenix, Sky etc.) 03 ☐/☐ COMMUNITY RADIO STATIONS Christian voice etc.
Q13a. In your view, how does the household rate the quality of radio reception for PUBLIC STATIONS (ZNBC RADIO STATIONS)? E Q12.Yes.Contains(1)	SINGLE-SELECT Q13A 01 ○ Good 02 ○ Fair 03 ○ Poor/Bad
Q13b. In your view, how does the household rate the quality of radio reception for COMMERCIAL RADIO STATIONS (Phoenix, Sky etc.)? E Q12.Yes.Contains(2)	SINGLE-SELECT Q13B 01 ○ Good 02 ○ Fair 03 ○ Poor/Bad
Q13c. In your view, how does the household rate the quality of radio reception for COMMUNITY RADIO STATIONS (Christian voice etc)? E Q12.Yes.Contains(3)	SINGLE-SELECT Q13C 01 ○ Good 02 ○ Fair 03 ○ Poor/Bad
Q14. Does this household have a fixed telephone line?	SINGLE-SELECT Q14 01 ○ Yes 02 ○ No
Q15. Is the fixed telephone line functional? E Q14 == 1	SINGLE-SELECT Q15 01 ○ Yes 02 ○ No
Q16. How often does the household access the fixed telephone services? E Q15 == 1	SINGLE-SELECT Q16 01 ○ At least once a day 02 ○ At least once a week 03 ○ At least once a month 04 ○ At least once in 3 months 05 ○ Not At All
Q17. In your view, how is the quality of fixed telephone services? E Q15 == 1 && Q16.InList(1,2,3,4)	SINGLE-SELECT Q17 01 ○ Good 02 ○ Fair 03 ○ Bad
Q18. Are you satisfied, AS A USER OF FIXED TELEPHONE, with the following ASPECTS of service delivery by your service provider? E Q15 == 1 && Q16.InList(1,2,3,4)	MULTI-SELECT: YES/NO Q18 01 ☐/☐ A. PROVISION OF SERVICE INFORMATION 02 ☐/☐ B. CUSTOMER SERVICES 03 ☐/☐ C. COMPLAINT RESOLUTION 04 ☐/☐ D. RELIABILITY OF OVERALL SERVICES

Q19. What is the household average monthly expenditure on fixed telephone services? (Amount in Zambian Kwacha)

I Enter -9 if amount cannot be obtained
E `Q15 == 1 && Q16.InList(1,2,3,4)`
W1 `self <= 5000`
M1 Amount in kwacha seems to be too high.
E2 `self == -9 || self >= 0`
M2 Amount in kwacha must be 0 or more. -9 must be entered if not able to obtain a response.

NUMERIC: DECIMAL Q19

Q20. Is fixed telephone service affordable?

E `Q19 > 0`

SINGLE-SELECT Q20
01 ○ Yes
02 ○ No

Q21. How much is the household willing to pay for fixed telephone services per month? (Amount in Zambian Kwacha)

E `Q20 == 2 && Q19 > 0`
W1 `self <= 5000`
M1 Amount in kwacha seems to be too high.
E2 `self >= 0`
M2 Amount in kwacha must be 0 or more.
E3 `Q21 < Q19`
M3 An amount less than what the household is currently spending (%Q19%) is expected.

NUMERIC: DECIMAL Q21

Q22. Does this household or any member of the household have a mobile cellular telephone?

SINGLE-SELECT Q22
01 ○ Yes
02 ○ No

Q23. Does this household or any member of this household have a computer?

SINGLE-SELECT Q23
01 ○ Yes
02 ○ No

Q24. Does any member of the household use the computer to access the internet at home?

E `Q23 == 1`

SINGLE-SELECT Q24
SCOPE: HIDDEN
01 ○ Yes
02 ○ No

Q25. Does this household or any member of this household have any internet access at home, regardless of whether it is used or not?

SINGLE-SELECT Q25
01 ○ Yes
02 ○ No

Q26. Why does this household not have Internet access?

E `Q25 == 2`

MULTI-SELECT: YES/NO Q26
01 ☐ ☑ Do not need the Internet (not useful, not interesting, lacks local content)
02 ☐ ☑ Have access to the Internet elsewhere
03 ☐ ☑ Lack of confidence, knowledge or skills to use the Internet
04 ☐ ☑ Cost of the equipment is too high
05 ☐ ☑ Cost of the internet is too high
06 ☐ ☑ Privacy or security concerns
07 ☐ ☑ Internet service is not available in the area
08 ☐ ☑ Internet service is available but it does not correspond to household needs (e.g. quality, speed)
09 ☐ ☑ Cultural reasons (e.g. exposure to harmful content)
10 ☐ ☑ Other reason

Q26s. Specify why this household does not have internet access.

E Q26.Yes.Contains(10)

TEXT Q26S

Q27. What type of internet service(s) are used for internet access at home?

E Q25 == 1

MULTI-SELECT: YES/NO Q27

01 ☐/☐ Terrestrial fixed (wireless) broadband network e.g. DSL, WiMAX etc
02 ☐/☐ VSAT (Satellite broadband network)
03 ☐/☐ Fixed (wired) narrowband (internet speed under 256 kbps e.g. Dial-up, N-ISDN, Fractional T1 etc.)
04 ☐/☐ Fibre-to-the-home
05 ☐/☐ Mobile narrowband (internet speed under 256 kbps e.g. 2G, 2.5G etc.)
06 ☐/☐ Mobile broadband network via mobile phone (3G, 4G etc.)
07 ☐/☐ Mobile broadband network via modem (Mifi etc.)
08 ☐/☐ Other type

Q28. What is the main type of internet access used at home?

F Q27.Yes.Contains(@optioncode)
E Q27.Yes.Count() > 1

SINGLE-SELECT Q28

01 ○ Terrestrial fixed (wireless) broadband network e.g. DSL, WiMAX etc
02 ○ VSAT (Satellite broadband network)
03 ○ Fixed (wired) narrowband (internet speed under 256 kbps e.g. Dial-up, N-ISDN, Fractional T1 etc.)
04 ○ Fibre-to-the-home
05 ○ Mobile narrowband (internet speed under 256 kbps e.g. 2G, 2.5G etc.)
06 ○ Mobile broadband network via mobile phone (3G, 4G, LTE etc.)
07 ○ Mobile broadband network via modem (3G, 4G, LTE etc.)
08 ○ Other type

Q28s. Specify main type of internet access used at home.

E Q28 == 8

TEXT Q28S

Q29. Are you satisfied, AS A USER OF INTERNET, with the following ASPECTS of service delivery by your MAIN Internet service provider?

E Q25 == 1

MULTI-SELECT: YES/NO Q29

06 ☐/☑ 6. INTERNET SPEED
01 ☐/☑ 1. PROVISION OF SERVICE INFORMATION
02 ☐/☑ 2. CUSTOMER SERVICES
03 ☐/☑ 3. COMPLAINT RESOLUTION
04 ☐/☑ 4. ACCURACY IN BILLING
05 ☐/☑ 5. RELIABILITY OF OVERALL SERVICES

Q30. On average how much does the household spend on internet services in a month? (Amount in Zambian Kwacha)

E Q25 == 1
E1 self >= 0
M1 Amount in kwacha must be 0 or more.

NUMERIC: DECIMAL Q30

Q31. Is internet service affordable for the household?

E Q25 == 1 && Q30 > 0

SINGLE-SELECT Q31

01 ○ Yes
02 ○ No

Q32. How much is the household willing to pay for internet services?

E Q31 == 2 && Q30 > 0
E1 self >= 0
M1 Amount in kwacha must be 0 or more.
E2 Q32 < Q30
M2 An amount less than what the household is currently spending (%Q30%) is expected.

NUMERIC: DECIMAL Q32

Q33. Do you know how many members of the household are using the internet?

E Q25 == 1

SINGLE-SELECT Q33

01 ○ Yes
02 ○ No

Q34. How many members of the household are using the internet?

E Q33 == 1
E1 self <= persons.Count()
M1 Number of members using the internet can't exceed the number of pers ons in the household
E2 self > 0
M2 At least one member of the household must be using the internet.

NUMERIC: INTEGER Q34

Q35. How old is the youngest member of the household using the internet?

E Q25 == 1

SINGLE-SELECT: LINKED Q35

Q36. Do you or any other member of the household pay attention to the internet content accessed by the household?

E Q25 == 1

SINGLE-SELECT Q36

01 ○ Yes
02 ○ No

Q37. Do you use any tools/strategies to mitigate the risk of household member's exposure to illicit content on the internet?

E Q25 == 1

SINGLE-SELECT Q37

01 ○ Yes
02 ○ No

Q37B. What is the main reason for not using any tools to mitigate exposure of the household to online/internet risks?

E Q37 == 2

SINGLE-SELECT Q41

01 ○ Do not know of any tools
02 ○ Don't view illicit content as a serious danger
03 ○ The tools I tried are not effective
04 ○ members of my household are responsible enough
05 ○ Do not have the time
06 ○ Not aware of any risks online
07 ○ Other

Q37Bs. Specify other reason for not using any tools to mitigate exposure

E Q41 == 7

TEXT Q41S

Q38. What tools or strategies do you mainly use to mitigate the risk of the household's exposure to illicit content on the internet?

E Q37 == 1

SINGLE-SELECT Q38

01 ○ Web browser filtering Parental Control tools
02 ○ ISP-level additional content filtering services
03 ○ Voluntary filtering of child abuse materials
04 ○ Family friendly internet filters
05 ○ Search engine filtering
06 ○ Operating system filtering
07 ○ Installing software to filter illicit content
08 ○ Activate history log to monitor visited sites
09 ○ Other

Q38s. Specify other tool or strategy you use.

E Q38 == 9

TEXT Q38S

Q39. Do you visit activity logs or history pages of internet sites visited by household members?

E Q36.InList(1,2)

SINGLE-SELECT Q39

01 ○ Yes
02 ○ No

Q40. Why don't you visit activity logs or history pages of sites visited by household members?

E Q39 == 2

TEXT Q40

Q42. Have you agreed on rules about using the internet with household members

E Q25 == 1

SINGLE-SELECT Q42

01 ○ Yes
02 ○ No

Q43. Do you have rules in this household regarding the following?

I Enumerator: read out the items below to the respondent and select appropriate answer for each.

E Q42 == 1

MULTI-SELECT: YES/NO Q43

01 ☐ ☑ Sharing passwords
02 ☐ ☑ Age inappropriate products and/or services
03 ☐ ☑ Bullying
04 ☐ ☑ Pornograghy
05 ☐ ☑ Posting photographs
06 ☐ ☑ Sharing personal information e.g. name, phone number, address etc
07 ☐ ☑ Sexting
08 ☐ ☑ Physical meeting with people met online
09 ☐ ☑ Other

Q43s. Specify other area for which you have rule about using the internet in the household.

E Q43.Yes.Contains(9)

TEXT Q43S

Q44. Do you have a good understanding of activities household members do while on the internet/online?

E Q36.InList(1,2)

SINGLE-SELECT Q44

01 ○ Yes
02 ○ No

Q45. What is the reason for not having good understanding of how household members spend their time online?

E Q44 == 2

TEXT Q45

Q46. Do you or any member of the household educate household members on the risks associated with internet/online environment?

E Q36.InList(1,2)

SINGLE-SELECT Q46

01 ○ Yes
02 ○ No

Q47. Does the education include the following?

E Q46 == 1

MULTI-SELECT: YES/NO Q47

01 ☐ ☑ Sharing passwords
02 ☐ ☑ Age inappropriate products/services
03 ☐ ☑ Bullying
04 ☐ ☑ Pornograghy
05 ☐ ☑ Sexting
06 ☐ ☑ Posting photographs
07 ☐ ☑ Sharing personal information e.g. name, phone number, address etc
08 ☐ ☑ Physical meeting with people met online
09 ☐ ☑ Other

Q47s. Specify other subject the education includes.

E Q47.Yes.Contains(9)

TEXT Q47S

Q48. Do you share experiences encountered on the internet/online environment?

E Q36.InList(1,2)

SINGLE-SELECT Q48

01 ○ Yes
02 ○ No

Q49. State the reason for not communicating with household members on their internet/online environment experiences

E Q48 == 2

TEXT Q49

Q50. Does the household use any digital financial service? (Zoona, MTN money, Airtel money, Zamtel Kwacha, mobile banking, e-Voucher etc.)

SINGLE-SELECT Q50

01 ○ Yes
02 ○ No

Q51. What does the household use digital financial services for?

E Q50 == 1

MULTI-SELECT: YES/NO Q51

01 ☐ ☑ Pay electricity bills
02 ☐ ☑ Pay water bills
03 ☐ ☑ Pay bills for pay TV
04 ☐ ☑ Pay school fees
05 ☐ ☑ Sending money
06 ☐ ☑ Receiving money
07 ☐ ☑ Other

Q51s. Specify other household use for digital financial services.

E Q51.Yes.Contains(7)

TEXT Q51S

E-WASTE

E (Q01.Yes.Count() > 0 || Q01.No.Count() > 0) && Q03.InList(1,2) && Q11.InList(1,2) && Q14.InList(1,2) && Q22.InList(1 ,2) && Q23.InList(1,2) && Q25.InList(1,2) && Q50.InList(1,2)

Q52. Has the household ever disposed of any electronic or electrical item(s) which are damaged or are no longer useful to the household?

SINGLE-SELECT Q52

01 ○ Yes
02 ○ No

Q53. Have you ever disposed of any of the following items which are damaged or no longer useful to the household in the past 3 years?

E Q52 == 1

MULTI-SELECT: YES/NO Q53

01 ☐ Stove
02 ☐ Fridge
03 ☐ Phone (mobile or fixed)
04 ☐ Microwave
05 ☐ Computers
06 ☐ Blender
07 ☐ Electric kettle
08 ☐ Television
09 ☐ Radio
10 ☐ Scanner
11 ☐ Printer
12 ☐ Washing machine
13 ☐ Air conditioner unit
14 ☐ Fan
15 ☐ Heater
16 ☐ Projector

And 7 other symbols [2]

Q53s. Specify other item the household disposed of

E Q53.Yes.Contains(23)

TEXT Q53S

Q54-1. How many Stove(s) have you disposed of which were damaged or were no longer useful to the household?

E Q53.Yes.Contains(1)
E1 self > 0
M1 one or more items expected

NUMERIC: INTEGER Q54_01

Q54-2. How many Fridge(s) have you disposed of which were damaged or no longer useful to the household?

E Q53.Yes.Contains(2)
E1 self > 0
M1 one or more items expected

NUMERIC: INTEGER Q54_02

Q54-3. How many Phone(s) (mobile or fixed) have you disposed of which were damaged or no longer useful to the household?

E Q53.Yes.Contains(3)
E1 self > 0
M1 one or more items expected

NUMERIC: INTEGER Q54_03

Q54-4. How many Microwave(s) have you disposed of which were damaged or were no longer useful to the household?

E Q53.Yes.Contains(4)
E1 self > 0
M1 one or more items expected

NUMERIC: INTEGER Q54_04

Q54-5. How many Computer(s) have you disposed of which were damaged or no longer useful to the household?

E Q53.Yes.Contains(5)
E1 self > 0
M1 one or more items expected

NUMERIC: INTEGER Q54_05

Q54-6. How many Blender(s) have you disposed of which were damaged or no longer useful to the household? E Q53.Yes.Contains(6) E1 self > 0 M1 one or more items expected	NUMERIC: INTEGER Q54_06
Q54-7. How many Electric kettle(s) have you disposed of which were damaged or no longer useful to the household? E Q53.Yes.Contains(7) E1 self > 0 M1 one or more items expected	NUMERIC: INTEGER Q54_07
Q54-8. How many Television(s) have you disposed of which were damaged or no longer useful to the household? E Q53.Yes.Contains(8) E1 self > 0 M1 one or more items expected	NUMERIC: INTEGER Q54_08
Q54-9. How many Radio(s) have you disposed of which were damaged or no longer useful to the household? E Q53.Yes.Contains(9) E1 self > 0 M1 one or more items expected	NUMERIC: INTEGER Q54_09
Q54-10. How many Scanner(s) have you disposed of which were damaged or no longer useful to the household? E Q53.Yes.Contains(10) E1 self > 0 M1 One or more items expected	NUMERIC: INTEGER Q54_10
Q54-11. How many Printer(s) have you disposed of which were damaged or no longer useful to the household? E Q53.Yes.Contains(11) E1 self > 0 M1 One or more items expected	NUMERIC: INTEGER Q54_11
Q54-12. How many Washing machine(s) have you disposed of which were damaged or no longer useful to the household? E Q53.Yes.Contains(12) E1 self > 0 M1 One or more items expected	NUMERIC: INTEGER Q54_12
Q54-13. How many Air conditioner unit(s) have you disposed of which were damaged or no longer useful to the household? E Q53.Yes.Contains(13) E1 self > 0 M1 One or more items expected	NUMERIC: INTEGER Q54_13

Q54-14. How many Fan(s) have you disposed of which were damaged or no longer useful to the household?

E Q53.Yes.Contains(14)
E1 self > 0
M1 One or more items expected

NUMERIC: INTEGER Q54_14

Q54-15. How many Heater(s) have you disposed of which were damaged or no longer useful to the household?

E Q53.Yes.Contains(15)
E1 self > 0
M1 One or more items expected

NUMERIC: INTEGER Q54_15

Q54-16. How many Projector(s) have you disposed of which were damaged or no longer useful to the household?

E Q53.Yes.Contains(16)
E1 self > 0
M1 One or more items expected

NUMERIC: INTEGER Q54_16

Q54-17. How many VCR player(s) have you disposed of which were damaged or no longer useful to the household?

E Q53.Yes.Contains(17)
E1 self > 0
M1 One or more items expected

NUMERIC: INTEGER Q54_17

Q54-18. How many DVD/Blu Ray player(s) have you disposed of which were damaged or no longer useful to the household?

E Q53.Yes.Contains(18)
E1 self > 0
M1 One or more items expected

NUMERIC: INTEGER Q54_18

Q54-19. How many Hi-Fi system(s) have you disposed of which were damaged or no longer useful to the household?

E Q53.Yes.Contains(19)
E1 self > 0
M1 One or more items expected

NUMERIC: INTEGER Q54_19

Q54-20. How many Battery(s) have you disposed of which were damaged or no longer useful to the household?

E Q53.Yes.Contains(20)
E1 self > 0
M1 One or more items expected

NUMERIC: INTEGER Q54_20

Q54-21. How many Solar panel(s) have you disposed of which were damaged or were no longer useful to the household?

E Q53.Yes.Contains(21)
E1 self > 0
M1 One or more items expected

NUMERIC: INTEGER Q54_21

Q54-22. How many LED/LCD light(s) have you disposed of which were damaged or no longer useful to the household?

E Q53.Yes.Contains(22)
E1 self > 0
M1 One or more items expected

NUMERIC: INTEGER Q54_22

Q54-23. How many Other items have you disposed of which were damaged or no longer useful to the household?

E Q53.Yes.Contains(23)
E1 self > 0
M1 One or more items expected

NUMERIC: INTEGER Q54_23

Q55a. Which of the following items are owned by the household currently?

MULTI-SELECT: YES/NO Q55A

01 ☐ Stove
02 ☐ Fridge
03 ☐ Phone (mobile or fixed)
04 ☐ Microwave
05 ☐ Computers
06 ☐ Blender
07 ☐ Electric kettle
08 ☐ Television
09 ☐ Radio
10 ☐ Scanner
11 ☐ Printer
12 ☐ Washing machine
13 ☐ Air conditioner unit
14 ☐ Fan
15 ☐ Heater
16 ☐ Projector

And 7 other symbols [3]

Q55s. Specify other item currently owned by the household.

E Q55A.Yes.Contains(23)
E1 Q55S.Length > 2
M1 Text typed is too short to be the name of a household item. Please type t he item correctly.

TEXT Q55S

Q55-1. How many Stove(s) are owned by the household currently?

E Q55A.Yes.Contains(1)
E1 self > 0
M1 1 or more items are expected

NUMERIC: INTEGER Q55_01

Q55-2. How many Fridge(s) are owned by the household currently?

E Q55A.Yes.Contains(2)
E1 self > 0
M1 1 or more items are expected

NUMERIC: INTEGER Q55_02

Q55-3. How many Phone(s) are owned by the household currently?

E Q55A.Yes.Contains(3)
E1 self > 0
M1 1 or more items are expected

NUMERIC: INTEGER Q55_03

Q55-4. How many Microwave(s) are owned by the household currently? E Q55A.Yes.Contains(4) E1 self > 0 M1 1 or more items are expected	NUMERIC: INTEGER Q55_04
Q55-5. How many Computers(s) are owned by the household currently? E Q55A.Yes.Contains(5) E1 self > 0 M1 1 or more items are expected	NUMERIC: INTEGER Q55_05
Q55-6. How many Blender(s) are owned by the household currently? E Q55A.Yes.Contains(6) E1 self > 0 M1 1 or more items are expected	NUMERIC: INTEGER Q55_06
Q55-7. How many Electric kettle(s) are owned by the household currently? E Q55A.Yes.Contains(7) E1 self > 0 M1 1 or more items are expected	NUMERIC: INTEGER Q55_07
Q55-8. How many Television(s) are owned by the household currently? E Q55A.Yes.Contains(8) E1 self > 0 M1 1 or more items are expected	NUMERIC: INTEGER Q55_08
Q55-9. How many Radio(s) are owned by the household currently? E Q55A.Yes.Contains(9) E1 self > 0 M1 1 or more items are expected	NUMERIC: INTEGER Q55_09
Q55-10. How many Scanner(s) are owned by the household currently? E Q55A.Yes.Contains(10) E1 self > 0 M1 1 or more items are expected	NUMERIC: INTEGER Q55_10
Q55-11. How many Printer(s) are owned by the household currently? E Q55A.Yes.Contains(11) E1 self > 0 M1 1 or more items are expected	NUMERIC: INTEGER Q55_11
Q55-12. How many Washing machine(s) are owned by the household currently? E Q55A.Yes.Contains(12) E1 self > 0 M1 1 or more items are expected	NUMERIC: INTEGER Q55_12

Q55-13. How many Air conditioner unit(s) are owned by the household currently? E Q55A.Yes.Contains(13) E1 self > 0 M1 1 or more items are expected	NUMERIC: INTEGER Q55_13
Q55-14. How many Fan(s) are owned by the household currently? E Q55A.Yes.Contains(14) E1 self > 0 M1 1 or more items are expected	NUMERIC: INTEGER Q55_14
Q55-15. How many Heater(s) are owned by the household currently? E Q55A.Yes.Contains(15) E1 self > 0 M1 1 or more items are expected	NUMERIC: INTEGER Q55_15
Q55-16. How many Projector(s) are owned by the household currently? E Q55A.Yes.Contains(16) E1 self > 0 M1 1 or more items are expected	NUMERIC: INTEGER Q55_16
Q55-17. How many VCR player(s) are owned by the household currently? E Q55A.Yes.Contains(17) E1 self > 0 M1 1 or more items are expected	NUMERIC: INTEGER Q55_17
Q55-18. How many DVD player(s) are owned by the household currently? E Q55A.Yes.Contains(18) E1 self > 0 M1 1 or more items are expected	NUMERIC: INTEGER Q55_18
Q55-19. How many Hi-Fi system(s) are owned by the household currently? E Q55A.Yes.Contains(19) E1 self > 0 M1 1 or more items are expected	NUMERIC: INTEGER Q55_19
Q55-20. How many Batteries(s) are owned by the household currently? E Q55A.Yes.Contains(20) E1 self > 0 M1 1 or more items are expected	NUMERIC: INTEGER Q55_20
Q55-21. How many Solar panel(s) are owned by the household currently? E Q55A.Yes.Contains(21) E1 self > 0 M1 1 or more items are expected	NUMERIC: INTEGER Q55_21

Q55-22. How many LED/LCD light(s) are owned by the household currently?

E `Q55A.Yes.Contains(22)`
E1 `self > 0`
M1 1 or more items are expected

NUMERIC: INTEGER Q55_22

Q55-23. How many %Q55S%(s) are owned by the household currently?

E `Q55A.Yes.Contains(23) && Q55S.Trim() != ""`
E1 `self > 0`
M1 1 or more items are expected

NUMERIC: INTEGER Q55_23

INDIVIDUAL

E `members.Count(x=>x.HR4 >= 10 && (x.HMC1 == null || x.HMC4 == null)) == 0`

INDIVIDUAL

Roster: INDIVIDUALS

generated by list question HR1

`individual`

E `HR4 >= 10 && RSTATUS == 1`

STATIC TEXT

ICT USAGE FOR INDIVIDUAL

Q1. Do you know how to use a computer?

SINGLE-SELECT I01
01 ○ Yes
02 ○ No

Q2. Which of the following activities have you carried out on the computer.

E `I01 == 1`

MULTI-SELECT: YES/NO I02
01 ☐ ☐ A. Copying or moving a file or folder
02 ☐ ☐ B. Using copy and paste tools to duplicate or move information within a document
03 ☐ ☐ C. Sending e-mails with attached files (e.g. document, picture, video)
04 ☐ ☐ D. Using basic arithmetic formulae in a spreadsheet
05 ☐ ☐ E. Connecting and installing new devices (e.g. a modem, camera, printer)
06 ☐ ☐ F. Finding, downloading, installing and configuring software
07 ☐ ☐ G. Creating electronic presentations with presentation software (including text, images, sound, video or charts)
08 ☐ ☐ H. Transferring files between a computer and other devices
09 ☐ ☐ I. Writing a computer program using a specialized programming language
10 ☐ ☐ Other

Q2s. Specify other task you have carried out on the computer. E I02.Yes.Contains(10)	TEXT I02S
Q3. Which of the following activities have you carried out on the computer in the last 3 months? FI02.Yes.Contains(@optioncode) E I01 == 1	MULTI-SELECT: YES/NO I03 01 ☐/☐ A. Copying or moving a file or folder 02 ☐/☐ B. Using copy and paste tools to duplicate or move information within a document 03 ☐/☐ C. Sending e-mails with attached files (e.g. document, picture, video) 04 ☐/☐ D. Using basic arithmetic formulae in a spreadsheet 05 ☐/☐ E. Connecting and installing new devices (e.g. a modem, camera, printer) 06 ☐/☐ F. Finding, downloading, installing and configuring software 07 ☐/☐ G. Creating electronic presentations with presentation software (including text, images, sound, video or charts) 08 ☐/☐ H. Transferring files between a computer and other devices 09 ☐/☐ I. Writing a computer program using a specialized programming language 10 ☐/☐ Other
Q4. Have you used a mobile cellular telephone in the last three months?	SINGLE-SELECT I04 01 ○ Yes 02 ○ No
Q5. Have you owned a mobile cellular telephone that is subscribed to any local mobile network operator in the last 3 months? E I04 == 1	SINGLE-SELECT I05 01 ○ Yes 02 ○ No
Q6. Was the mobile cellular telephone purchased in Zambia? E I04 == 1 && I05 == 1	SINGLE-SELECT I06 01 ○ Yes 02 ○ No 03 ○ Don't know
Q7. Was the mobile phone brand new? E I04 == 1 && I05 == 1	SINGLE-SELECT I07 01 ○ Yes 02 ○ No
Q8. Are you aware of any certification requirements for the mobile cellular telephone(s)?	SINGLE-SELECT I08 01 ○ Yes 02 ○ No
Q9. Is there mobile cellular network coverage for any local network in your place of residence?	SINGLE-SELECT I09 01 ○ Yes 02 ○ No
Q10. What kind of mobile cellular network signal is available in the area? I Check the type of network using the provided application E I09 == 1	SINGLE-SELECT I10 01 ○ 2G (GPRS, EDGE, GSM, CDMA, TDMA, EGPRS, IMT-SC, HSCSD) 02 ○ 3G (HSPA, HSPA+, UMTS, IMT-2000, W-CDMA,) 03 ○ 4G (LTE, IMT-A, WiMAX,)

Q11. How long (in minutes) would you have to walk to find network coverage?

I Standard measure is 1km in 12 minutes E I09 == 2
E1 self >= 0 && self < 200
M1 Please enter a valid number of minutes

NUMERIC: INTEGER I11

Q12. How many mobile cellular telephones with active SIM cards do you have?

E I04 == 1 && I05 == 1
E1 self > 0
M1 number of cellular phones with active SIM cards should be 1 or more

NUMERIC: INTEGER I12

Q13. Is your mobile cellular telephone or any of your mobile cellular telephones multiple SIM?

E I04 == 1 && I05 == 1

SINGLE-SELECT I13
01 ○ Yes
02 ○ No

Q14. How many of your mobile cellular telephone(s) have IMEI numbers?

I dial *#06# to display mobile device IMEI E I04 == 1 && I05 == 1
E1 self <= I12
M1 The number of phones having IMEIs should be equal or less than the total number of phones (%I12%).
E2 self >= 0
M2 The number of phones having IMEIs must be 0 or more.

NUMERIC: INTEGER I14

Q15. Which mobile cellular operator(s) are you subscribed to?

E I04 == 1 && I05 == 1

MULTI-SELECT: YES/NO I15
01 ☐/☐ Airtel
02 ☐/☐ MTN
03 ☐/☐ Zamtel

Q16. Which is your most preferred mobile cellular network operator?

FI15.Yes.Contains(@optioncode)
E I15.Yes.Count() > 1

SINGLE-SELECT I16
01 ○ AIRTEL
02 ○ MTN
03 ○ ZAMTEL

Q17. What is the main reason for preferring the network operator to others?

E I04 == 1 && I05 == 1

SINGLE-SELECT I17
01 ○ It's the only network available here
02 ○ Most of my friends are on the network
03 ○ They have good promotions
04 ○ Number is known by most of my contacts
05 ○ Not expensive/affordable
06 ○ Better quality of service
07 ○ Good customer service/care
08 ○ Other

Q17s. Specify reason for preferring the network to others.

E I17 == 8

TEXT I17S

Q18a. Have you ever experienced the following in the course of using a mobile cellular telephone services?

E I04 == 1 && I05 == 1

MULTI-SELECT: YES/NO I18
01 ☐/☐ Poor clarity of voice calls
02 ☐/☐ Delayed call set up time beyond 10s
03 ☐/☐ Any dropped calls
04 ☐/☐ Delayed SMS delivery time beyond 5s
05 ☐/☐ Network intermittence or outage

Q18b_1. How do you rate your experience with Voice Clarity regarding the service you are getting from the mobile cellular telephone provider?

E I04 == 1 && I05 == 1

SINGLE-SELECT I19_1
01 ○ Very Poor
02 ○ Poor
03 ○ Average
04 ○ Good
05 ○ Excellent

Q18b_2. How do you rate your experience with Call set up time regarding the service you are getting from the mobile cellular telephone provider?

E I04 == 1 && I05 == 1

SINGLE-SELECT I19_2
01 ○ Very Poor
02 ○ Poor
03 ○ Average
04 ○ Good
05 ○ Excellent

Q18b_3. How do you rate your experience with Frequency of Call drops regarding the service you are getting from the mobile cellular telephone provider?

E I04 == 1 && I05 == 1

SINGLE-SELECT I19_3
01 ○ Very Poor
02 ○ Poor
03 ○ Average
04 ○ Good
05 ○ Excellent

Q18b_4. How do you rate your experience with SMS delivery time regarding the service you are getting from the mobile cellular telephone provider?

E I04 == 1 && I05 == 1

SINGLE-SELECT I19_4
01 ○ Very Poor
02 ○ Poor
03 ○ Average
04 ○ Good
05 ○ Excellent

Q18b_5. How do you rate your experience with Network availability regarding the service you are getting from the mobile cellular telephone provider?

E I04 == 1 && I05 == 1

SINGLE-SELECT I19_5
01 ○ Very Poor
02 ○ Poor
03 ○ Average
04 ○ Good
05 ○ Excellent

Q19. Are you satisfied, AS A USER OF %I16%, with the following ASPECTS of service delivery by your MAIN mobile network service provider?

E I04 == 1

MULTI-SELECT: YES/NO I19A
01 ☐/☐ 1. PROVISION OF SERVICE INFORMATION
02 ☐/☐ 2. CUSTOMER SERVICES
03 ☐/☐ 3. COMPLAINT RESOLUTION
04 ☐/☐ 4. ACCURACY IN BILLING
05 ☐/☐ 5. RELIABILITY OF OVERALL SERVICES

Q20a. Are you aware of the existence of the following toll-free number in Zambia

E I04 == 1 && I05 == 1

MULTI-SELECT: YES/NO I20
01 ☐/☐ Child help line 116
02 ☐/☐ ZICTA call Centre 7070

Q20b. Have you used the following toll-free number in Zambia

F I20.Yes.Contains(@optioncode)
E I04 == 1 && I05 == 1 && I20.Yes.Count() > 0

MULTI-SELECT: YES/NO I20B
01 ☐/☐ Child help line 116
02 ☐/☐ ZICTA call Centre 7070

Q21. On average, how much do you spend on airtime per week?

E I04 == 1 && I05 == 1
E1 self >= 0
M1 amount in kwacha must be 0 or more

NUMERIC: INTEGER I21

Q22. Is the cost of mobile cellular telephone communication affordable?

E I04 == 1 && I05 == 1 && I21 > 0

SINGLE-SELECT I22
01 ○ Yes
02 ○ No

Q23. How much are you willing to spend on mobile cellular communication per week?

E I22 == 2
E1 self >= 0
M1 Amount in kwacha must be 0 or more.

NUMERIC: INTEGER I23

Q24. Is your mobile cellular telephone or any of your mobile cellular telephone(s) a smartphone?

E I04 == 1 && I05 == 1

SINGLE-SELECT I24
01 ○ Yes
02 ○ No

Q25. Do you use OTT (Over The Top) applications like WhatsApp, Viber, Facebook, Skype, Twitter, Instagram etc. for the following services?

E I24 == 1

MULTI-SELECT: YES/NO I25
01 ☐ ☐ Messaging
02 ☐ ☐ Video Calling
03 ☐ ☐ Voice calling

Q26. Are you willing to buy a smartphone?

E I24 == 2

SINGLE-SELECT I26
01 ○ Yes
02 ○ No

Q27. How much are you willing to pay for a smartphone?

E I26 == 1
E1 self >= 0
M1 Amount in kwacha must be 0 or more.

NUMERIC: INTEGER I27

Q28. Have you ever disposed of any of the following item, which are damaged or no longer useful to you (ICT related items in the past 3 years)?

MULTI-SELECT: YES/NO I28
01 ☐ ☐ Mobile phone
02 ☐ ☐ Backup power storages (Power bank, UP etc.)
03 ☐ ☐ Charger
04 ☐ ☐ Battery
05 ☐ ☐ Computer (Laptop, tablet, PDA etc.)
06 ☐ ☐ Data storage devices (Flash drives, memory cards, CDs, floppy disks, external Hard drive etc.)
07 ☐ ☐ Adaptor
08 ☐ ☐ Accessories (headsets, data cables, power packs, mouse etc.)
09 ☐ ☐ Cameras
10 ☐ ☐ Game consoles
11 ☐ ☐ Other

Q28s. Specify other item disposed of.

E I28.Yes.Contains(11)

TEXT I28S

Q29-1. How many Mobile Phone(s) have you disposed of in last 3 years?

E I28.Yes.Contains(1)
E1 self > 0
M1 If item was disposed of in Q28, the number must be at least 1.

NUMERIC: INTEGER I29_01

Q29-2. How many Backup power storage(s) (Power bank, UPS etc.) have you disposed of in last 3 years?

NUMERIC: INTEGER I29_02

E I28.Yes.Contains(2)
E1 self > 0
M1 If item was disposed of in Q28, the number must be at least 1.

Q29-3. How many Charger(s) have you disposed of in last 3 years?

NUMERIC: INTEGER I29_03

E I28.Yes.Contains(3)
E1 self > 0
M1 If item was disposed of in Q28, the number must be at least 1.

Q29-4. How many Battery(s) have you disposed of in last 3 years?

NUMERIC: INTEGER I29_04

E I28.Yes.Contains(4)
E1 self > 0
M1 If item was disposed of in Q28, the number must be at least 1.

Q29-5. How many Computer(s) (Laptop, tablet, PDA etc.) have you disposed of in last 3 years?

NUMERIC: INTEGER I29_05

E I28.Yes.Contains(5)
E1 self > 0
M1 If item was disposed of in Q28, the number must be at least 1.

Q29-6. How many Data storage device(s) (Flash drives, memory cards, CDs, floppy disks, external Hard drive etc.) have you disposed of in last 3 years?

NUMERIC: INTEGER I29_06

E I28.Yes.Contains(6)
E1 self > 0
M1 If item was disposed of in Q28, the number must be at least 1.

Q29-7. How many Adaptor(s) have you disposed of in last 3 years?

NUMERIC: INTEGER I29_07

E I28.Yes.Contains(7)
E1 self > 0
M1 If item was disposed of in Q28, the number must be at least 1.

Q29-8. How many Accessories (headsets, data cables, power packs, mouse etc.) have you disposed of in last 3 years?

NUMERIC: INTEGER I29_08

E I28.Yes.Contains(8)
E1 self > 0
M1 If item was disposed of in Q28, the number must be at least 1.

Q29-9. How many Camera(s) have you disposed of in last 3 years?

NUMERIC: INTEGER I29_09

E I28.Yes.Contains(9)
E1 self > 0
M1 If item was disposed of in Q28, the number must be at least 1.

Q29-10. How many Game console(s) have you disposed of in last 3 years?

NUMERIC: INTEGER I29_10

E I28.Yes.Contains(10)
E1 self > 0
M1 If item was disposed of in Q28, the number must be at least 1.

Q29-11. How many %I28S%(s) have you disposed of in last 3 years?

E I28.Yes.Contains(11)
E1 self > 0
M1 If item was disposed of in Q28, the number must be at least 1.

NUMERIC: INTEGER I29_11

Q30. How did you dispose of electronic and electrical devices which were damaged and/or are no longer useful to you?

E I28.Yes.Count() > 0

MULTI-SELECT: YES/NO I30

01 ☐ ☐ Gave away (donate, give)
02 ☐ ☐ Burnt
03 ☐ ☐ Sold (for reuse, recycling etc.)
04 ☐ ☐ Threw at a landfill
05 ☐ ☐ Threw in a trash can
06 ☐ ☐ Put away within the house (e.g. stashed in the drawer)
07 ☐ ☐ Other

Q30s. Specify how you disposed of electrical and electronics which were damaged or no longer useful.

E I30.Yes.Contains(7)

TEXT I30S

Q31a. Are you aware of the dangers associated with unsafe disposal of electronic and electrical devices that are no longer in use?

SINGLE-SELECT I31

01 ○ Yes
02 ○ No

Q31b. What dangers are you aware of?

E I31 == 1
E1 I31B == null || I31B.Yes.Count() > 0
M1 A yes is expected on at least one of the dangers since %rostertitle% said they are aware.

MULTI-SELECT: YES/NO I31B

01 ☐ ☐ Air pollution
02 ☐ ☐ Water pollution
03 ☐ ☐ Soil contamination
04 ☐ ☐ Other

Q31s. Specify other danger.

E I31B.Yes.Contains(4)

TEXT I31S

STATIC TEXT

INTERNET USAGE FOR INDIVIDUALS

Q32. Have you ever used the internet?

SINGLE-SELECT I32

01 ○ Yes
02 ○ No

Q33. What is the main reason for not using the internet?

E I32 == 2

SINGLE-SELECT I33

01 ○ I don't know how to use it
02 ○ Internet service is not available
03 ○ Waste of time
04 ○ It's expensive
05 ○ I have no access to internet
06 ○ Lack of interest
07 ○ No internet facility nearby
08 ○ It is intimidating/frightening
09 ○ Its demonic
10 ○ I have no device for accessing it
11 ○ Other

Q33s. Specify main reason for not using the internet.

E I33 == 11

TEXT I33S

Q34. Have you used the internet at least once in the last 3 months?

E I32 == 1

SINGLE-SELECT I34

01 ○ Yes
02 ○ No

Q35. How often did you use the internet in the last 3 months?

E I34 == 1

SINGLE-SELECT I35

01 ○ At least once a day
02 ○ At least once a week but not every day
03 ○ At least once a month
04 ○ At least once in 3 months

Q36. Mention all the places where you used the internet in the last 3 months?

E I34 == 1

MULTI-SELECT: YES/NO I36

01 ☐ ☑ Work
02 ☐ ☑ place of education
03 ☐ ☑ Friend's home
05 ☐ ☑ Home
06 ☐ ☑ Community internet Access facility
07 ☐ ☑ Internet café
08 ☐ ☑ Anywhere on a mobile device
09 ☐ ☑ Other

Q36s. Specify other place where you used the internet.

E I36.Yes.Contains(9)

TEXT I36S

Q37. Do you have an email address?

E I32.InList(1,2)

SINGLE-SELECT I37

01 ○ Yes
02 ○ No

Q38. How many email addresses do you have?

E I37 == 1
E1 self > 0
M1 %rostertitle% said %I37% to Q37, at least 1 email address is expected.

NUMERIC: INTEGER I38

Q39. What email address type(s) do you have?

E I38 > 0
E1 self.Yes.Count() <= I38
M1 You can not have more email address types than the number of emails you have (%I38%)

MULTI-SELECT: YES/NO I39

01 ☐ ☑ Yahoo
02 ☐ ☑ Gmail
03 ☐ ☑ Outlook Mail
04 ☐ ☑ Hotmail
05 ☐ ☑ Myway
06 ☐ ☑ Live
07 ☐ ☑ Corporate email
08 ☐ ☑ Other

Q39s. Specify other email address you have.

E I39.Yes.Contains(8)

TEXT I39S

Q40. Do you use any cloud services?

E I32 == 1

SINGLE-SELECT I40

01 ○ Yes
02 ○ No

Q41. Which cloud services have you used before in the last 3 months?

E I40 == 1

MULTI-SELECT: YES/NO I41

- 01 ☐ ☑ One drive
- 02 ☐ ☑ You Tube
- 03 ☐ ☑ iCloud
- 04 ☐ ☑ Dropbox
- 05 ☐ ☑ Google Drive
- 06 ☐ ☑ Other

Q41s. Specify other cloud service that you used before?

E I41.Yes.Contains(6)

TEXT I41S

Q42. What activities do you undertake when you are browsing/surfing the internet?

E I34 == 1

MULTI-SELECT: YES/NO I42

- 01 ☐ ☑ Studying
- 02 ☐ ☑ Research
- 03 ☐ ☑ Business
- 04 ☐ ☑ E-mail
- 05 ☐ ☑ Social Networking
- 06 ☐ ☑ Shopping Store
- 07 ☐ ☑ Internet Banking
- 08 ☐ ☑ Learning
- 09 ☐ ☑ Gaming
- 10 ☐ ☑ Downloading things
- 11 ☐ ☑ Reading Publications
- 12 ☐ ☑ Streaming videos and/or movies
- 13 ☐ ☑ Watching online TV
- 14 ☐ ☑ Listening to online music and/or radio (audio streaming)
- 15 ☐ ☑ Accessing cloud services
- 16 ☐ ☑ Other

Q42s. Specify other activities you undertake when you are on the internet.

E I42.Yes.Contains(16)

TEXT I42S

Q43. Are you satisfied, AS A USER OF INTERNET, with the following ASPECTS of service delivery by your MAIN Internet service provider?

E I34 == 1

MULTI-SELECT: YES/NO I43

- 01 ☐ ☑ A. Provision Of Service Information
- 02 ☐ ☑ B. Customer Services
- 03 ☐ ☑ C. Complaint Resolution
- 04 ☐ ☑ D. Accuracy In Billing
- 05 ☐ ☑ E. Reliability Of Overall Services

Q44. What type of internet services do you use often?

E I34 == 1

SINGLE-SELECT I44

- 01 ○ Narrowband (internet speed under 256 kbps)
- 02 ○ Mobile broadband via mobile phone
- 03 ○ Mobile broadband via modem (dongle,)
- 04 ○ Fixed broadband e.g. terrestrial, Fibre etc.
- 05 ○ I don't know

Q45. What is your monthly expenditure on internet services?

I Enter -9 if not paying (for example if someone else pays for %rostertitle %'s internet services)
E `I44.InList(1,4,5)`
E1 `self == -9 || self >= 0`
M1 Amount in kwacha must be 0 or more.

NUMERIC: INTEGER I45

Q46. What is your weekly expenditure on internet services?

I Enter -9 if not paying (for example if someone else pays for %rostertitle %'s internet services)
E `I44.InList(2,3)`
E1 `self == -9 || self >= 0`
M1 Amount in kwacha must be 0 or more.

NUMERIC: INTEGER I46

Q47. Is internet service affordable for you?

E `I45 > 0 || I46 > 0`

SINGLE-SELECT I47
01 ○ Yes
02 ○ No

Q48. How much are you willing to pay for internet services monthly?

E `I47 == 2`
E1 `self >= 0`
M1 Amount in kwacha must be 0 or more.
E2 `I48 < I46`
M2 An amount less than what %rostertitle% is currently spending (%I46%) i s expected.

NUMERIC: INTEGER I48

STATIC TEXT

REGULATORY ASSESSMENT

Q49. Do you know of any institution that regulates the ICT, Postal and Courier services in Zambia

SINGLE-SELECT I49
01 ○ Yes
02 ○ No

Q50. Which institution is mandated to regulate the ICT, Postal and Courier services in Zambia?

I Enumerator: Do not read out options
E `I49 == 1`

SINGLE-SELECT I50
01 ○ ZICTA (Zambia Information and Communications Technology Authority)
02 ○ Other

Q50s. Specify other institution mentioned by respondent.

E `I50 == 2`

TEXT I50S

Q51. Have you ever heard about the Zambia Information & Communication Technology Authority (ZICTA)?

E `I50 == 2 || I49 == 2`

SINGLE-SELECT I51
01 ○ Yes
02 ○ No

Q52. Do you think ZICTA is effective as a regulator in performing the following functions?

E I49 == 1 && I50 == 1 && I51 != 1

MULTI-SELECT: YES/NO I52

- 01 ☐ ☐ 1. Enforcement of Quality of service
- 02 ☐ ☐ 2. Voice tariff regulation
- 03 ☐ ☐ 3. Data tariff regulation
- 04 ☐ ☐ 4. SMS tariff regulation
- 05 ☐ ☐ 5. Complaints Resolutions
- 06 ☐ ☐ 6. Consumer Protection
- 07 ☐ ☐ 7. Consumer Awareness
- 08 ☐ ☐ 8. Access to ICT services

STATIC TEXT

INTERNET RISKS

Q53. Do you know of any dangers or risks that exist from using the internet?

E I32 == 1

SINGLE-SELECT I53

- 01 ○ Yes
- 02 ○ No

Q54. What are the online/internet risks that you know of?

E I53 == 1

MULTI-SELECT: YES/NO I54

- 01 ☐ / ☐ A. Fake News
- 02 ☐ / ☐ B. Phishing
- 03 ☐ / ☐ C. Financial Fraud
- 04 ☐ / ☐ D. Pornographic Materials
- 05 ☐ / ☐ E. Cyber bullying
- 06 ☐ / ☐ F. False alarms
- 07 ☐ / ☐ G. Identity theft
- 08 ☐ / ☐ H. Violence
- 09 ☐ / ☐ I. Terrorism
- 10 ☐ / ☐ J. Damage to reputation
- 12 ☐ / ☐ K. Sexting .B
- 13 ☐ / ☐ L. Impersonation
- 14 ☐ / ☐ M. Fake online promotions
- 15 ☐ / ☐ N. Scams
- 16 ☐ / ☐ O. Hacking
- 17 ☐ / ☐ P. Online Defamation

And 1 other symbols [4]

Q54s. Specify other online/internet risk you know of.

E I54.Yes.Contains(18)

TEXT I54S

Q55. Have you ever been a victim of any of the following online/internet risks?

I Read out options and explain

E I32 == 1

MULTI-SELECT: YES/NO I55

01 ☐/☐ A. Fake News
02 ☐/☐ B. Phishing
03 ☐/☐ C. Financial Fraud
04 ☐/☐ D. Pornographic Materials
05 ☐/☐ E. Cyber bullying
06 ☐/☐ F. False alarms
07 ☐/☐ G. Identity theft
08 ☐/☐ H. Violence
09 ☐/☐ I. Terrorism
10 ☐/☐ J. Damage to reputation
12 ☐/☐ K. Sexting .B
13 ☐/☐ L. Impersonation
14 ☐/☐ M. Fake online promotions
15 ☐/☐ N. Scams
16 ☐/☐ O. Hacking
17 ☐/☐ P. Online Defamation

And 1 other symbols [5]

Q55s. Specify other online/internet risk you have been a victim of.

E I55.Yes.Contains(18)

TEXT I55S

Q56. Do you have any social media account?

E I32 == 1

SINGLE-SELECT I56

01 ○ Yes
02 ○ No

Q57. Which social media account(s) do you have?

E I56 == 1

MULTI-SELECT: YES/NO I57

01 ☐/☐ A. Twitter
02 ☐/☐ B. Facebook
03 ☐/☐ C. WhatsApp
04 ☐/☐ D. Google +
05 ☐/☐ E. Instagram
06 ☐/☐ F. Viber
07 ☐/☐ G. Snap Chat
08 ☐/☐ H. WeChat
09 ☐/☐ I. Skype
10 ☐/☐ J. Linked-In
11 ☐/☐ K. Windows Live
12 ☐/☐ L. Yahoo Messenger
13 ☐/☐ M. Blackberry Messenger
14 ☐/☐ N. Twoo
15 ☐/☐ O. Badoo
16 ☐/☐ P. Myspace

And 1 other symbols [6]

Q57s. Specify other social media account you have.

E I57.Yes.Contains(17)

TEXT I57S

Q58. Which social media account do you use the most?

F I57.Yes.Contains(@optioncode)
E I57.Yes.Count() > 1

SINGLE-SELECT I58

01 ○ A. Twitter
02 ○ B. Facebook
03 ○ C. WhatsApp
04 ○ D. Google +
05 ○ E. Instagram
06 ○ F. Viber
07 ○ G. Snap Chat
08 ○ H. WeChat
09 ○ I. Skype
10 ○ J. Linked-In
11 ○ K. Windows Live
12 ○ L. Yahoo Messenger
13 ○ M. Blackberry Messenger
14 ○ N. Twoo
15 ○ O. Badoo
16 ○ P. Myspace

And 1 other symbols [7]

Q59. Have you ever encountered any of the following online/internet risks while using the social media?

E I56 == 1

MULTI-SELECT: YES/NO I59

01 ☐/☐ A. Fake News
02 ☐/☐ B. Phishing
03 ☐/☐ C. Financial Fraud
04 ☐/☐ D. Pornographic Materials
05 ☐/☐ E. Cyber bullying
06 ☐/☐ F. False alarms
07 ☐/☐ G. Identity theft
08 ☐/☐ H. Violence
09 ☐/☐ I. Terrorism
10 ☐/☐ J. Damage to reputation
11 ☐/☐ K. Sexting
12 ☐/☐ L. Impersonation
13 ☐/☐ M. Fake online promotions
14 ☐/☐ N. Scams
15 ☐/☐ O. Hacking
16 ☐/☐ P. Online Defamation

And 1 other symbols [8]

Q59s. Specify other online/internet risk you encountered.

E I59.Yes.Contains(17)

TEXT I59S

Q60. Have you ever been exposed to pornography on the internet?

E I32 == 1

SINGLE-SELECT I60

01 ○ Yes
02 ○ No

Q61. Have you ever been exposed to violent material on the internet?

E I32 == 1

SINGLE-SELECT I61

01 ○ Yes
02 ○ No

Q62. Are you aware that production/possession/circulation of obscene materials, including pornography, is a crime in Zambia?

SINGLE-SELECT I62

01 ○ Yes
02 ○ No

Q63. What would you do if you were exposed to obscene materials on the internet?

I Probe for the first reaction/response upon exposure to obscene materials on the internet.

E I32 == 1

MULTI-SELECT: YES/NO I63

01 ☐ ☑ Report it to the site you are on if it popped up
02 ☐ ☑ Report to Zambia Police
03 ☐ ☑ Talk to someone you trust
04 ☐ ☑ Close the site
05 ☐ ☑ Surf on
06 ☐ ☑ Use filters to block offensive or adult material
07 ☐ ☑ Seek support to prevent access to the website
08 ☐ ☑ Report to ZICTA
09 ☐ ☑ Other

Q63s. Specify what you would do.

E I63.Yes.Contains(9)

TEXT I63S

Q64. Do you know how to activate security or privacy settings on social media or internet browser in order to protect yourself?

E I34 == 1

SINGLE-SELECT I64

01 ○ Yes
02 ○ No

Q65. Do you get in touch with your service provider (ISP, MNO etc.) for help on tools or strategies to mitigate or control internet risks?

E I64 == 2

SINGLE-SELECT I65

01 ○ Yes
02 ○ No

Q66. Have you ever personally used the internet to purchase any goods and/or services?

E I32 == 1

SINGLE-SELECT I66

01 ○ Yes
02 ○ No

Q67. How did you pay for the goods and/or services?

E I66 == 1

MULTI-SELECT: YES/NO I67

01 ☐ ☑ PayPal
02 ☐ ☑ Western Union
03 ☐ ☑ Payment card (VISA, Master Card, American Express etc.)
04 ☐ ☑ Mobile money
05 ☐ ☑ Telegraphic Transfer
06 ☐ ☑ Other

Q67s. Specify how you paid for the goods and/or services.

E I67.Yes.Contains(6)

TEXT I67S

Q68. Did you encounter difficulties in the process of transacting with …

F I67.Yes.Contains(@optioncode)
E I67.Yes.Count() > 0

MULTI-SELECT: YES/NO I68

01 ☐ ☑ PayPal
02 ☐ ☑ Western Union
03 ☐ ☑ Payment card (VISA, Master Card, American Express etc.)
04 ☐ ☑ Mobile money
05 ☐ ☑ Telegraphic Transfer
06 ☐ ☑ Other

Q69. Did you receive the goods and/or services the last time you made a transaction online?

F I67.Yes.Contains(@optioncode)
E I66 == 1 && I67.Yes.Count() > 0

MULTI-SELECT: YES/NO — I69

- 01 ☐ ☑ PayPal
- 02 ☐ ☑ Western Union
- 03 ☐ ☑ Payment card (VISA, Master Card, American Express etc.)
- 04 ☐ ☑ Mobile money
- 05 ☐ ☑ Telegraphic Transfer
- 06 ☐ ☑ Other

Q70. Did you receive a refund?

F I69.No.Contains(@optioncode)
E I69.No.Count() > 0

MULTI-SELECT: YES/NO — I70

- 01 ☐ ☑ PayPal
- 02 ☐ ☑ Western Union
- 03 ☐ ☑ Payment card (VISA, Master Card, American Express etc.)
- 04 ☐ ☑ Mobile money
- 05 ☐ ☑ Telegraphic Transfer
- 06 ☐ ☑ Other

Q71. How were the goods mainly delivered the last time you bought goods/services online?

E I69.Yes.Count() > 0

SINGLE-SELECT — I71

- 01 ○ Zampost
- 02 ○ Courier Company
- 03 ○ Logistics Company
- 06 ○ Seller
- 07 ○ Downloads
- 08 ○ Online services
- 09 ○ Other

Q71s. Specify how the goods were delivered.

E I71 == 9

TEXT — I71S

Q72. Were the goods and/or services in the condition that was described on the internet?

E I69.Yes.Count() > 0

SINGLE-SELECT — I72

- 01 ○ Yes
- 02 ○ No

STATIC TEXT

DIGITAL FINANCIAL SERVICES

Q73. Are you aware of the existence of any digital financial service(s) currently on offer in Zambia? (e.g. Zoona, Airtel Money etc.)

SINGLE-SELECT — I73

- 01 ○ Yes
- 02 ○ No

Q74. Do you have any of the following account(s)?

MULTI-SELECT: YES/NO — I74

- 01 ☐ ☑ 1. Commercial bank account (Barclays, Zanaco etc.)
- 02 ☐ ☑ 2. Mirco fin account (Bayport, Zampost etc.)
- 03 ☐ ☑ 3. Saving and Credit institutions (Natsave, Building Society etc.)
- 04 ☐ ☑ 4. E-Wallet (Zoona account, Airtel money account etc.)

Q75. Is any of the accounts enabled for the following digital financial services?

E I74.Yes.ContainsAny(1,2,3)

MULTI-SELECT: YES/NO — I75

- 01 ☐ ☑ 1. Phone banking
- 02 ☐ ☑ 2. Online/Internet banking

Q76. Have you ever transacted using digital financial service(s)?

SINGLE-SELECT I76
01 ○ Yes
02 ○ No

Q77A. Why have you not ever used any of the digital financial services on the market?

E I76 == 2

MULTI-SELECT: YES/NO I77
01 ☐/☐ Preference to transact with cash
02 ☐/☐ Low transaction threshold
03 ☐/☐ Not trustworthy
04 ☐/☐ Feel insecure
05 ☐/☐ phobia of technology
06 ☐/☐ Have no money
07 ☐/☐ Unreliable services
08 ☐/☐ Not registered
09 ☐/☐ It's expensive
10 ☐/☐ No access to services
11 ☐/☐ Other

Q77s. Specify other reason why you have not ever used any of the digital financial services

E I77.Yes.Contains(11)

TEXT I77S

Q77B. What is the main reason you have not ever used any of the digital financial services on the market?

FI77.Yes.Contains(@optioncode)
E I77.Yes.Count() > 1

SINGLE-SELECT I77B
01 ○ Preference to transact with cash
02 ○ Low transaction threshold
03 ○ Not trustworthy
04 ○ Feel insecure
05 ○ phobia of technology
06 ○ Have no money
07 ○ Unreliable services
08 ○ Not registered
09 ○ It's expensive
10 ○ No access to services
11 ○ Other

Q78. Which digital financial service(s) have you used before?

E I76 == 1

MULTI-SELECT: YES/NO I78
01 ☐/☐ A. Airtel Money
02 ☐/☐ B. MTN Money
03 ☐/☐ C. Zamtel Kwacha
04 ☐/☐ D. Speed Pay
05 ☐/☐ E. Broad Pay
06 ☐/☐ F. Kazang (Spagris)
07 ☐/☐ G. FNB e-Wallet
08 ☐/☐ H. Cash send (Barclays)
09 ☐/☐ I. Stanbic IM Voucher
10 ☐/☐ J. Payment cards (e-Voucher etc.)
11 ☐/☐ K. Zoona
12 ☐/☐ L. Xapit
13 ☐/☐ M. Swiftcash
14 ☐/☐ N. Shoprite money transfer
15 ☐/☐ O. Other

Q78s. Specify which digital financial service you have used before.

E I78.Yes.Contains(15)

TEXT I78S

Q79. Do you have any preference for a digital financial service provider?

E I76 == 1

SINGLE-SELECT I79
01 ○ Yes
02 ○ No

Q80. Which service is your most preferred digital financial service?

FI78.Yes.Contains(@optioncode)
E I79 == 1 && I78.Yes.Count() > 0

SINGLE-SELECT I80
01 ○ A. Airtel Money
02 ○ B. MTN Money
03 ○ C. Zamtel Kwacha
04 ○ D. Speed Pay
05 ○ E. Broad Pay
06 ○ F. Kazang (Spagris)
07 ○ G. FNB e-Wallet
08 ○ H. Cash send (Barclays)
09 ○ I. Stanbic IM Voucher
10 ○ J. Payment cards (e-Voucher etc.)
11 ○ K. Zoona
12 ○ L. Xapit
13 ○ M. Swiftcash
14 ○ N. Shoprite money transfer
15 ○ O. Other

Q80s. Specify which digital financial service is your most preferred.

E I80 == 15

TEXT I80S

Q81. Give the main reason for your preference.

E I79 == 1

TEXT I81

Q82. Which of the following transaction(s) do you use digital financial services for?

E I76 == 1

MULTI-SELECT: YES/NO I82
01 ☐ ☑ A. Pay for utility bills (Power, water, DSTV etc.)
02 ☐ ☑ B. Buy airtime
03 ☐ ☑ C. Pay taxes
04 ☐ ☑ D. Pay school/tuition fees
05 ☐ ☑ E. Pay hospital bills
06 ☐ ☑ F. Sending money
07 ☐ ☑ G. Receiving money
08 ☐ ☑ H. Pay for insurance
09 ☐ ☑ I. Make merchant payments
10 ☐ ☑ J. Savings
11 ☐ ☑ K. Other

Q82s. Specify which transaction you use digital financial services for.

E I82.Yes.Contains(11)

TEXT I82S

Q83. Would you recommend the use of digital financial services to others?

E I76 == 1

SINGLE-SELECT I83
01 ○ Yes
02 ○ No

Q84. Why would you not recommend the use of the digital financial services to others?

E I83 == 2

MULTI-SELECT: YES/NO I84

01 ☐/☐ Preference to transact with cash
02 ☐/☐ Low transaction threshold
03 ☐/☐ Not trustworthy
04 ☐/☐ Insecure
05 ☐/☐ Technology not user friendly
06 ☐/☐ Unreliable services
07 ☐/☐ It's expensive
08 ☐/☐ Bad experience with provider/agent
09 ☐/☐ Fraud
10 ☐/☐ Other

Q84s. Specify why you would not recommend the use of digital financial services to others.

E I84.Yes.Contains(10)

TEXT I84S

Q85. Do you know of any institution that regulates digital financial services in Zambia?

SINGLE-SELECT I85

01 ○ Yes
02 ○ No

Q86. What is the name of the institution which regulates digital financial services in Zambia?

E I85 == 1

TEXT I86

Q87. Are you aware of any channels of redress for complaints related to digital financial services?

E I76 == 1

SINGLE-SELECT I87

01 ○ Yes
02 ○ No

Q88. Who is the first contact for complaints related to digital financial services?

E I87 == 1

SINGLE-SELECT I88

01 ○ Bank of Zambia (BOZ)
02 ○ Zambia Information and Communications Technology Authority (ZICTA)
03 ○ Competition and Consumer Protection Commission (CCPC)
04 ○ Service provider (DFS)
05 ○ Zambia Police
06 ○ Other

Q88s. Specify who your first contact for complaints related to digital financial services is.

E I88 == 6

TEXT I88S

Q89. If your DFS related complaint is not resolved by the first contact, where would you report it to?

F @optioncode != I88
E I87 == 1

SINGLE-SELECT I89

01 ○ Bank of Zambia (BOZ)
02 ○ Zambia Information and Communications Technology Authority (ZICTA)
03 ○ Competition and Consumer Protection Commission (CCPC)
04 ○ Service provider (DFS)
05 ○ Zambia Police
06 ○ Other

Q89s. Specify where you would report to if DFS related complaint is not resolved by first contact.

E I89 == 6

TEXT I89S

Q90. Have you ever experienced any problem(s) while using digital financial services?

E I76 == 1

SINGLE-SELECT I90

01 ○ Yes
02 ○ No

Q91. Which digital financial service (s) has given you problem(s) before?

F I78.Yes.Contains(@optioncode)
E I90 == 1 && I78.Yes.Count() > 0

MULTI-SELECT: YES/NO I91

01 ☐/☐ A. Airtel Money
02 ☐/☐ B. MTN Money
03 ☐/☐ C. Zamtel Kwacha
04 ☐/☐ D. Speed Pay
05 ☐/☐ E. Broad Pay
06 ☐/☐ F. Kazang (Spagris)
07 ☐/☐ G. FNB e-Wallet
08 ☐/☐ H. Cash send (Barclays)
09 ☐/☐ I. Stanbic IM Voucher
10 ☐/☐ J. Payment cards (e-Voucher etc.)
11 ☐/☐ K. Zoona
12 ☐/☐ L. Xapit
13 ☐/☐ M. Swiftcash
14 ☐/☐ N. Shoprite money transfer
15 ☐/☐ O. Other

Q91s. Specify which digital financial service has given you problem(s) before

E I91.Yes.Contains(15)

TEXT I91S

Q92. Which problems did you experience in the course of using digital financial services?

E I90 == 1

MULTI-SELECT: YES/NO I92

01 ☐ ☐ Slow transmission of funds to intended recipient
02 ☐ ☐ Non-receipt of transferred money by the recipient
03 ☐ ☐ Non-receipt of notification
04 ☐ ☐ Insufficient float (agent unable to send due to insufficient e-value)
05 ☐ ☐ Lack of liquidity (agents)
06 ☐ ☐ Fraud
07 ☐ ☐ Limited access points or agents
08 ☐ ☐ System failure
09 ☐ ☐ Other

Q92s. Specify which problems you experienced in the course of using digital financial services.

E I92.Yes.Contains(9)

TEXT I92S

Q93. Where did you report the problem(s) you experienced?

E I90 == 1

E1 (I93.Yes.Contains(7) && I93.Yes.Count() == 1) || !(I93.Yes.Contains(7))

M1 If 'nowhere' is selected, it must be the only response answered yes.

MULTI-SELECT: YES/NO I93

01 ☐ ☐ Bank of Zambia (BOZ)
02 ☐ ☐ Zambia Information and Communications Technology Authority (ZICTA)
03 ☐ ☐ Competition and Consumer Protection Commission (CCPC)
04 ☐ ☐ Service provider (DFS)
05 ☐ ☐ Police
06 ☐ ☐ Other
07 ☐ ☐ Nowhere (did not report)

Q93s. Specify where you reported the problem(s) you experienced

E I93.Yes.Contains(6)

TEXT I93S

Q94. Have you received money via digital financial services in the last 3 months? E I76 == 1	SINGLE-SELECT I94 01 ○ Yes 02 ○ No
Q95. How were you notified the last time money was sent to you via digital financial services? E I94 == 1	SINGLE-SELECT I95 01 ○ By service provider via SMS 02 ○ By service provider through a phone call 03 ○ I had to check at the nearest service centre/branch 04 ○ By the sender 05 ○ Other
Q95s. Specify how you were notified the last time money was sent to you via digital financial services. E I95 == 5	TEXT I95S _____
Q96. How do you rate the quality of service for digital financial services? E I76 == 1	SINGLE-SELECT I96 01 ○ Good 02 ○ Fair 03 ○ Poor/Bad
Q97. What do you think is the main area that can be improved in terms of quality of service for DFS? E I96.InList(2,3)	SINGLE-SELECT I97 01 ○ Speed of transfers 02 ○ Reliability of service in terms of receiving of funds 03 ○ Better service at receiving points 04 ○ Increase in the number of pay points for mobile payment services 05 ○ Complaint resolution 06 ○ Availability of cash 07 ○ Network outages 08 ○ Other 09 ○ Float availability
Q97s. Specify what you think is the main area that can be improved in terms of quality of service for DFS E I97 == 8	TEXT I97S _____
Q98. Do you feel digital financial transactions are more efficient than cash/cheque transactions? E I76 == 1	SINGLE-SELECT I98 01 ○ Yes 02 ○ No
Q99. Which one do you use more often? E I76 == 1	SINGLE-SELECT I99 01 ○ Digital financial transactions 02 ○ Cash/Cheque transactions
Q100. Do you feel secure when sending/receiving money via digital financial services? E I76 == 1	SINGLE-SELECT I100 01 ○ Yes 02 ○ No

Q101. What is your main security concern?

E I100 == 2

SINGLE-SELECT I101

01 ○ Losing money
02 ○ Potential exposure of personal information to crooked people
03 ○ Lack of trust for service providers
04 ○ Legitimacy of certain services is questionable
05 ○ Other

Q101s. Specify what your main security concern is.

E I101 == 5

TEXT I101S

Q102. Which digital financial service do you use frequently?

F I78.Yes.Contains(@optioncode)
E I78.Yes.Count() > 1

SINGLE-SELECT I102

01 ○ Airtel Money
02 ○ MTN Money
03 ○ Zamtel Kwacha
04 ○ Speed Pay
05 ○ Broad Pay
06 ○ Kazang (Spagris)
07 ○ FNB e-Wallet
08 ○ Cash send (Barclays)
09 ○ Stanbic IM Voucher
10 ○ Payment cards (e-Voucher etc.)
11 ○ Zoona
12 ○ Xapit
13 ○ Swiftcash
14 ○ Shoprite money transfer
15 ○ Other

Q102s. Specify which digital financial services you use frequently.

E I102 == 15

TEXT I102S

Q103. How would you rate the service charge of the frequently used digital financial service (%I102%)?

E I102 != null

SINGLE-SELECT I103

01 ○ Cheap
02 ○ Affordable
03 ○ Expensive

Q104. How would you rate the overall service delivery for the frequently used digital financial services (%I102%)?

E I102 != null

SINGLE-SELECT I104

01 ○ Poor
02 ○ Fair
03 ○ Good

Q105. Are you aware of your rights as a user of digital financial services?

E I76 == 1

SINGLE-SELECT I105

01 ○ Yes
02 ○ No

Q106. Which of the following right(s) are you aware of?

E I105 == 1

MULTI-SELECT: YES/NO I106

- 01 ☐ ☐ 1. Right to refund
- 02 ☐ ☐ 2. Right to full product information
- 03 ☐ ☐ 3. Privacy and protection of personal data
- 04 ☐ ☐ 4. Right to redress
- 05 ☐ ☐ 5. Right to notification of product alterations
- 06 ☐ ☐ 6. Right to complain
- 07 ☐ ☐ 7. Full disclosure of risks associated with the service
- 08 ☐ ☐ 8. Right to reverse transaction
- 09 ☐ ☐ 9. Other

Q106s. Specify which right you are aware of.

E I106.Yes.Contains(9)

TEXT I106S

Q107. How did you know about these right(s)?

E I105 == 1

MULTI-SELECT: YES/NO I107

- 01 ☐ ☐ Service provider
- 02 ☐ ☐ Website
- 03 ☐ ☐ Social media
- 04 ☐ ☐ Regulator
- 05 ☐ ☐ Print or electronic media
- 06 ☐ ☐ Other

Q107s. Specify how you knew about these right(s).

E I107.Yes.Contains(6)

TEXT I107S

Q108. What is your monthly income from all sources?

E HMC4 != 5 && HMC4 != 6

E1 self >= 0

M1 Amount in kwacha must be 0 or more.

NUMERIC: DECIMAL I108

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