



ZICTA

2022 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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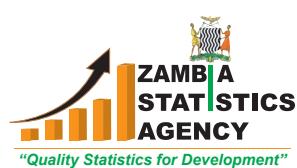
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LIST OF ABBREVIATIONS

BoZ	Bank of Zambia
CAPI	Computer Assisted Personal Interviewing
DFS	Digital Financial Services
EAs	Enumeration Areas
E-Commerce	Electronic Commerce
8NDP	Eighth National Development Plan
FTTH	Fibre-to-the-Home
GRZ	Government of the Republic of Zambia
GSB	Government Service Bus
ICF	International Classification of Functioning, Disability and Health
ICT	Information and Communications Technology
ITU	International Telecommunications Union
MNO	Mobile Network Operator
MOTS	Ministry of Technology and Science
OTT	Over-the-Top
PACRA	Patents and Companies Registration Agency
PIN	Personal Identification Number
PPS	Probability Proportional to Size
PSU	Primary Sampling Unit
PwDs	Persons with Disabilities
RTSA	Road Transport and Safety Agency
SDGs	Sustainable Development Goals
SEAs	Standard Enumeration Areas
SIM	Subscriber Identity Module
UASF	Universal Access and Service Fund
UN	United Nations
UNESCO	United Nations Educational, Scientific and Cultural Organization
WSIS	World Summit on Information Society
ZamStats	Zambia Statistics Agency
ZEMA	Zambia Environment Management Agency
ZICTA	Zambia Information and Communications Technology Authority
ZNBC	Zambia National Broadcasting Corporation
ZP	Zambia Police Service

PREFACE

I am pleased to present to you the findings of the 2022 National Survey on Access and Usage of Information and Communication Technologies (ICTs) by households and individuals in Zambia. This is the fourth nationally representative demand side survey undertaken by the Zambia Information and Communications Technology Authority (ZICTA) since 2013. These surveys have emerged as the most comprehensive source of information on access and usage of ICTs for the country and are a key reference for international and regional organisations, the Government, industry and academia. The Authority is grateful for the technical support that it has continued to receive from the Zambia Statistics Agency (ZamStats), the Bank of Zambia and the Ministry of Technology and Science among others in ensuring that we meet the increasing demand for timely and reliable statistics on access and usage of ICTs.



ICTs are increasingly taking center stage in our development discourse necessitating the need to have periodic evidence that is able to track the impact of the various interventions aimed at increasing access and usage of digital technologies. The Government equally recognizes the important role of ICTs in accelerating economic growth and acting as an enabler for poverty reduction and wealth creation. It is for this reason that the Authority is committed to ensuring that there is universal access and increased utilisation of ICTs in the country. Therefore, such surveys provide a key resource for designing new interventions as well as realigning efforts to areas that would be in most need of support in the sector. The Authority is committed to ensuring that it continues to generate evidence that will support its decision making and complement the efforts of other state and non-state actors in the ICT sector intended to increase access and usage of ICTs. Additionally, the report coincides with ongoing efforts by the Government in reviewing the ICT policy of 2007 as well as the formulation of the Digital Transformation strategy and will provide useful input into the process.

A number of issues relating to access and usage of ICTs that build on the information collected in previous assessments were considered in the 2022 survey. These included but were not limited to the extent of ownership of ICT related devices, usage of ICT services, quality of experience when using various ICT services as well as various attributes related to the management of electrical/electronic waste. The 2022 survey extended the scope of prior assessments as more detailed insights in the previously considered subjects were included while additional subjects on electronic services and postal and courier services were incorporated. The survey continued to collect information associated with new developments related to Digital Financial Services, risks connected with the online environment and the associated mitigation strategies as well as barriers to access and usage of ICTs.

Finally, the report presents some key recommendations for consideration by all the actors in the ICT sector. I would like to encourage all the players in the ICT sector to familiarise themselves with the findings of the survey with a view of designing necessary responses to the observed gaps as well as sustaining the interventions that have demonstrated the largest positive impact.

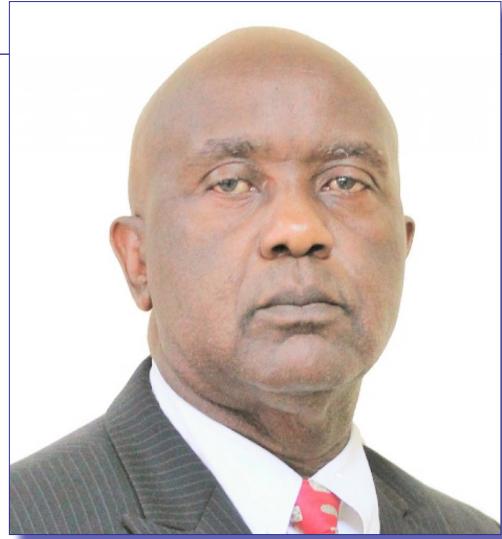
Eng. Choolwe Nalubamba

DIRECTOR GENERAL

ZAMBIA INFORMATION AND COMMUNICATIONS TECHNOLOGY AUTHORITY

FOREWORD

Since 2013, the Zambia Statistics Agency (ZamStats) has been collaborating with the Zambia Information and Communications Technology Authority (ZICTA) in carrying out demand side surveys on access and usage of Information and Communication Technologies (ICTs) in Zambia. The 2022 National Survey on Access and Usage of ICTs by Households and Individuals is the fourth in the series of these outputs. The first National survey was conducted in 2013, the second one in 2015 and the last survey undertaken in 2018. ZamStats as the focal point for national statistics has endeavored to continue providing the requisite technical support in order to facilitate the successful implementation of all the surveys undertaken so far.



As the demand for quality statistics increases, ZamStats has a critical role to play in providing technical support to various sectors in data collection, inference and validation. The collaboration between ZAMSTATS and ZICTA in data generation has been very productive as it has provided a great opportunity for capacity building within both institutions regarding data processing and analysis for ICT related statistics. The data produced has been useful in the development of a national indicator framework for the national development plans as well as tracking progress in the attainment of the Sustainable Development Goals (SDGs).

I would like to commend ZICTA for its commitment to consistently conduct these surveys over the last few years in order to keep up to speed with the trends in uptake and usage of ICTs. It is important that ZICTA continues being proactive in supporting the generation of data to track progress towards meeting the targets that are set in the 8NDP, the SDGs and the Vision 2030.

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

Mulenga J. Musepa
Statistician General
Zambia Statistics Agency

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ACKNOWLEDGEMENTS

The 2022 National Survey on Access and Usage of Information and Communication Technologies by Households and Individuals in Zambia was undertaken by the Zambia Information and Communications Technology Authority (ZICTA) in collaboration with the Ministry of Technology and Science (MOTS), the Bank of Zambia (BoZ) and the Zambia Statistics Agency (ZamStats). The task team was led by Bernard Banda and included Ian Siluye, Jane Mwafulirwa-Bwalya, Hendrix James Miyoba, Eric Lwao, Kango Mbewe, Royd Banda, Kennedy Kapembwa, Nina Hamakowa, Christabel Langamu, David Nyakamenji, Dadley Chisha, Timothy Kasasha, Patricia Maluti and Mukuka Chibowa from ZICTA who were responsible for the overall implementation of the survey. ZamStats was responsible for the technical design, implementation and analysis of data collected from the survey and was led by Joseph Tembo who was supported by Nkandu Kabibwa, Danny Chipaila, Bertha Nachinga and Chonde Namutowe. We are grateful for the logistical support received from all the ZamStats provincial offices which included the identification, training and supervision of enumerators during the data collection phase of the survey. The Bank of Zambia was represented by Moses Kiza Mbozi, Adrian Kangwa, Sipiwe Mudenda, Taonga Chisamanga, Liywali Mukelabai, Luka Mhango and Mwanza Namwila who were the technical leads in the design of instruments, analysis and reporting on the aspects related to Digital Financial Services. The Ministry of Technology and Science was represented by Elizabeth Chella who was responsible for ensuring that the policy related aspects of the survey were adequately considered.

The four implementing organisations wish to thank the various households and individuals that participated in the survey. We would also like to thank the various institutions that made very important technical contributions during the implementation of the survey. The report also benefitted from consultations and feedback by staff from the four implementing organizations and other external stakeholders.

The authors have made every effort to ensure that the information is an accurate reflection of the findings of the survey without any errors arising from bias or omission. Notwithstanding, any errors or omissions are the responsibility of the authors and do not present any liability on the implementing organisations.

EXECUTIVE SUMMARY

The 2022 National 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, 2015 and subsequently 2018 with a significant proportion of the survey having similar scope. Specifically, the survey investigated various attributes relating to adoption, diversity in use, quality of experiences, barriers to access, affordability and electronic waste. For the first time, the 2022 survey considered aspects related to the adoption of electronic services as well as postal and courier services among households and individuals and provided a more extensive assessment to aspects relating to Digital Financial Services. The survey maintained its national scope and provided regional and provincial estimates on all the aspects evaluated. These estimates were generated based on the recent 2022 Census Frame. The key findings from the survey are outlined below:

a) **Access to Electricity by Households**

A key feature of the survey was the investigation of households that had access to electricity which has possible causal influence on uptake of ICTs. Only 34.1 percent of the total number of households across the country had access to power from a utility entity. This reflects less extensive connections in the country that could negatively affect the extent of uptake of ICT services.

b) **Access and Usage of Television and Radio Broadcasting Services**

The proportion of households that owned a working television set across the whole country was 36.4 percent while only 8.7 percent of households owned a working smart television. The ownership of working radios by households continued to decline in 2022 consistent with the findings in earlier surveys. The proportion of households across the country that owned a working radio reduced from 40 percent in 2018 to 35 percent in 2022.

c) **Ownership of Computers by Households**

There was a marginal improvement in the ownership of computers by households. The proportion of households across the country that indicated that they owned a computer increased from 8.1 percent to 9.5 percent between 2018 and 2022 reflecting a continued improvement in ownership of computers by households in Zambia.

d) **Access to Internet Services by Households**

Access to internet services among households increased from 17.7 percent reported in 2018 to 33.4 percent in 2022. The majority of households with access to internet services remained in urban areas as opposed to rural areas accounting for 59 percent while the proportion of households in rural areas were 14.6 percent. The main type of technology adopted by households as their main source of internet services was reported to be mobile broadband network via handset accounting for 82.3 percent of the total number of households that access internet services. FTTH accounted for less than 1 percent of the households that indicated the technologies that were their main source of internet services. Most households reported that they were satisfied with various aspects of quality of experience with regards to their internet services with the exception of accuracy in billing. Significant improvement was observed with regards to complaint resolution where 83.1 percent of households were satisfied with this attribute relative to 57.3 percent of households that were satisfied in 2018.

- e) **ICT Skills among Individuals**

It was observed that 11.5 percent of individuals above the age of 10 years in the country had the ability to use a desktop computer in 2022 relative to 6.8 percent recorded in 2018 signifying a 3.2 percentage point increase. More individuals were noted to have the ability to use a smartphone, representing 27.3 of the population.
- f) **Ownership and Usage of Mobile phones**

The proportion of individuals aged 10 years and older that had used a mobile cellular telephone in the 3 months prior the data collection period was 63.3 percent. This presented an increment of 9.8 percentage points from the proportion of active mobile cellular phone users recorded in 2018. Mobile cellular telephone ownership by individuals aged 10 years and older was 51.8 percent of individuals reflecting a 7.2 percentage point increment from the mobile ownership rate recorded in 2018. Among the total number of individuals aged 10 years and older that owned mobile phones, 35.8 percent were noted to have smartphones. This represented a 6.2 percentage point increase in the proportion of individuals with mobile phones that owned smartphones from 29.6 percent recorded in 2018.
- g) **Access to Internet Services by Individuals**

The survey established that 25.2 percent of individuals aged 10 years and older had used the internet at least once translating into a 10.9 percentage point increase from the proportion of such individuals recorded in the 2018 survey. The survey revealed that most individuals that had not used the internet attributed this to not having learnt how to use the internet as well as the lack of a device for accessing the internet. With respect to the quality of internet services, the survey revealed that most internet users felt that all the internet service parameters comprising internet speed, reliability of internet service, accuracy in billing, complaint resolution, customer service and provision of information were good.
- h) **Online Risks and Mitigation by Households and Individuals**

The survey estimated that 53.5 percent of the households at national level with access to internet services indicated that they were aware of risks associated with the internet. The survey further established that 36.5 percent of households that were aware of risks associated with the internet used a tool or strategy to mitigate the risks of household members' exposure to illicit content accessible online. At individual level, the survey estimated the proportion of internet users aged 10 years and older with that were aware of the risks associated with online activities at 44.3 percent in 2022 which was comparatively less than 52.9 percent recorded in 2018.
- i) **Access and Usage of Digital Financial Services by Households and Individuals**

The survey results indicated that at least 73.1 percent of all the households across the country had used DFS at least once reflecting a positive improvement from 48.9 percent reported in 2018. The survey showed that about 47.6 percent of individuals aged 10 years and older in the country had transacted before using mobile money accounts. Additionally, it was observed that bank accounts and e-wallets accounted for 9.3 percent and 2.6 percent of individuals aged 10 years and older respectively that had used the services before. Further, the survey showed that most individuals aged 10 years and older that had never used DFS attributed this to the lack of money and not having registered for any DFS. Other significant hindrances to the adoption of DFS included the lack of knowledge on the services and preference to transact with cash. The most common challenges experienced by those that had encountered challenges on DFS platforms were noted to be insufficient float, scams and system failures.

j) **Usage of Electronic Services**

The survey established that 25.8 percent of households across the country had used the Government Services Bus (GSB) also known as the ZamPortal prior to the survey. The most widely used GSB services by households were those offered by Zambia Police Service (ZP) and Road Traffic and Safety agency (RTSA). It was estimated that 11.5 percent of Internet users aged 10 and above had engaged in e-commerce before. Additionally, the survey revealed that the prevalence of challenges faced by users of e-commerce was mostly related to delayed delivery of goods and/or services.

k) **Postal and Courier Services**

The survey established that 32.4 percent of the population had used courier services at least once prior to the survey compared to 17.3 percent of the population that had used postal services at least once prior to the survey. The courier services provided by bus companies and unregistered courier vehicles were the most widely used modes of courier services by individuals. The delay of parcels was the most common challenge faced by individuals that had ever used the postal and courier services.

l) **Electrical or Electronic Waste management**

The survey estimated that 44.5 percent of households across the country had disposed of some electronic or electrical items which were damaged or were no longer useful to the households. The survey further showed that phones (mobile or fixed) were among the most commonly disposed electronic items by households.

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 to households by utility companies if increased adoption of ICTs is to persist. Greater focus should be on rural areas where access to electricity from the utility companies was modest.
- ii. Deliberate interventions aimed at increasing the uptake of computers in the country will be necessary as the extent of ownership of computers among households remains very low. For instance, fiscal incentives aimed at either the importation of computers or the assembly of computers could provide a more affordable avenue for accessing the devices.
- iii. Internet penetration remained relatively low in the country despite some marginal progress noted. The smartphone penetration equally remained very low in spite of the observed improvement between 2018 and 2022. The cost of devices was noted as a key barrier to adoption of internet services coupled with relevance of the services. The Government should explore avenues for reducing the cost of smartphones which would include tax exemptions as well as consideration on scope for local assembly. Operators could also consider adopting tailor made products that assist with enhancing device ownership.
- iv. Online risks continue to pose a major threat to adoption of ICTs. The Authority should continue with efforts on awareness of online risks. Efforts should extend to unpacking the diversity and changing complexity of the observed risks. There is also a need to tailor the nature of the awareness efforts across different demographic groups such as children, women and rural populace given the diverse incidence of the online risks.
- v. ICT skills remained nascent with the majority of the populace not possessing basic ICT skills and the proportion of individuals with ICT skills declining with

- progression in the complexity of ICT 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.
- vi. Quality of experience among users of ICTs deteriorated between 2018 and 2022 in most of the attributes evaluated. The providers of services must consider addressing challenges such as network availability, quality of voice call clarity, internet speeds, dropped call rates, complaint resolution and accuracy in billing. Accuracy in billing was a significant attribute that was most poorly rated by users. The Authority should consider enhancing its oversight on billing and seek redress for the observed adverse experience.
 - vii. Efforts to extend financial inclusion through increased uptake of DFS will need to be sustained. 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. Additionally, digital literacy initiatives with a focus on rural areas should be enhanced to address the regional disparities in financial inclusion. There is also need to enhance awareness on mitigation of challenges related to risks associated with DFS such as scams. On the supply side, Operators should explore avenues of strengthening the liquidity and capacity of Agents who struggled with adequacy of their float.
 - viii. 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 facilitate for the availability of alternative options for safer disposal of electronic and electrical waste. The increased accumulation of electronic and electrical waste from mobile cellular phones, raises concern on the lifespan of electronic and electrical devices/products available on the market. More oversight on the adherence to quality standards as well as initiatives that encourage re-use of devices that could enhance the useful life of the devices is needed to mitigate the growing challenge.
 - ix. The survey revealed that there still exists a gender divide in access and usage of ICTs in the country though with some marginal improvements. Notably, there were more males that had used a mobile phone than females. Similarly, the proportion of males that had used the internet before was higher than females. Efforts to close the gender divide in access and usage of ICT services will need to be enhanced with a view of providing equal opportunities for both males and females.
 - x. The survey established that there are significant regional differences in access and usage of ICTs related to provinces and rural urban comparisons. These differences could be linked to both the socio economic status of people that live in these areas as well as commercial strategies by operators to drive access in areas that are more commercially viable. There is need to enhance universal access efforts in areas that are underserved as well as develop tailor made products and services that would stimulate uptake in such areas. Consideration could be made to enhance the availability of entry level products and services that would appeal to such communities.
 - xi. Adoption of both postal and courier services remained nascent in the country. There were also observed challenges in efficient delivery of parcels. The Authority could consider enhancing efforts aimed at stimulating the availability of postal and courier service points as well as raising awareness on the benefits associated with the subsector.



CHAPTER
1

BACKGROUND TO THE 2022 NATIONAL SURVEY ON ACCESS AND USAGE OF INFORMATION AND COMMUNICATION TECHNOLOGIES



1. BACKGROUND TO THE 2022 NATIONAL SURVEY ON ACCESS AND USAGE OF INFORMATION AND COMMUNICATION TECHNOLOGIES

1.1. Introduction

The 2022 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 Technology and Science (MOTS), the Bank of Zambia (BoZ) and the Zambia Statistics Agency (ZamStats). ZICTA is the regulator of ICTs and postal services and is therefore responsible for the implementation of various interventions in the sector including monitoring developments in access and usage of ICTs in the country. The Ministry of Technology and Science is also responsible for devising appropriate policies and strategies aimed at stimulating further adoption of ICTs in the country. As the adoption of ICTs has provided opportunities for increased utilisation of financial services especially through mobile money, the survey provided the Bank of Zambia, which is responsible for facilitating increased financial inclusion in the country, with an opportunity to track progress in the adoption of digital financial services in the country. The Zambia Statistical Agency is the official National Statistics Agency responsible for the development of official statistics. Zamstats was responsible for the overall design and implementation of the survey so as to ensure that the methodology was robust enough to provide national estimates.

The 2022 National ICT survey is the fourth (4th) in a series of similar surveys undertaken by the four organisations. The first (1st) survey was undertaken in 2013 and similar surveys were subsequently conducted in 2015 and 2018. The objectives and scope of the survey have continued to evolve in line with the needs of various stakeholders as well as developments in the sector. The survey also relied on input from various stakeholders on the scope of the information required from the survey. Further, the survey took into account some lessons that emanated from the previous surveys in terms of design and implementation as well as new issues that required consideration.

Several developments have occurred from the time the last survey was implemented which may have had an impact on access and usage of ICTs. Notably, there was a marked increase in investment towards ICT related infrastructure by both the Government through the Universal Access and Service Fund (UASF) as well as initiatives implemented through the private sector. These investments were aimed at increasing coverage, enhancing the quality of ICT services and introducing new services in the country. Furthermore, the legal framework for the sector has undergone several changes with new laws being passed to allow for the growth of the sector as well as to increase confidence in the use of ICT products and services. Awareness on various aspects related to usage of ICTs as well as the benefits of adoption of digital technologies have been undertaken by various state and non-state actors. These messages have largely been centered on increasing the adoption of digital financial services and improving safety while using digital technologies. In addition, a new licensing regime was implemented to facilitate innovation, growth and development of the sector. The country also made a number of strides related to digital literacy following the implementation of various programmes aimed at improvement of digital skills. The 2022 National survey on access and usage of ICTs was mainly aimed at measuring the progress in access and usage of ICT products and services amongst households and individuals following the implementation of the underscored and similar interventions.

1.2. Survey Objectives

The 2022 National Survey on Access and Usage of ICTs sought to measure progress in access and usage of ICTs by households and individuals in Zambia. This information was assessed with various population attributes such as age, gender, geographical classification, literacy, disability and socio economic status among others. The specific technologies and devices adopted, skills of users as well as the nature of activities undertaken while using ICT platforms were also evaluated. Key attributes related to barriers to adoption as well as challenges encountered while using ICT services were also assessed with a view of establishing strategies aimed at addressing these challenges. An evaluation of the extent of exposure to online risks, incidents and mitigation measures among households and individuals in the country was also undertaken. Further, the survey intended to show the users' perceptions on quality of service and affordability of ICT products and services. Noting the growing importance of mobile money and electronic wallets in driving financial inclusion, the survey sought to assess the extent of access and usage of digital financial services in the country as well as understand the disparities in access and usage across regions, age and sex among other attributes. The survey also identified the nature and extent of e-waste generated by households and individuals and the behavioural aspects of e-waste generation and management. For the first time in 2022, the survey evaluated the extent of adoption and use of Government online services (e-services) and that of postal and courier services in Zambia.

1.3. Context and Rationale of the Survey

The 2022 National Survey on Access and Usage of ICTs provides information on the progress made with regards to adoption of various ICTs in the country. The survey was developed at a time when the country had reached an advanced stage in the development of the new National ICT policy as well as the National Digital Transformation Strategy. These strategic documents provide the current context and aspirations of the country regarding increased adoption of ICTs in the country. Consequently, the survey provides baseline statistics for the development and implementation of the initiatives presented in these documents. The Eight National Development Plan (8NDP), which was developed in 2022, recognises the country's developmental context, challenges and opportunities being faced towards actualising the Vision 2030 and outlines the priorities of the Government in the medium term. The plan identified ICTs as key enablers and an accelerator of economic transformation as they positively affect the country's economic activities through enhanced efficiencies as well as unlocking new opportunities. Some of the main obstacles highlighted in the 8NDP included limited ICT infrastructure, low digital skills, restricted access to ICT devices and limited digital innovations. These challenges were recognised as the key drivers of the observed poor quality and unreliable services, restricted coverage of network services, exclusive adoption of digital technology and the prevalence of ICT associated risks among others. The National ICT Survey will provide evidence on the current state of the observed challenges in access and usage of ICTs as well as provide a sound basis for any interventions in the sector.

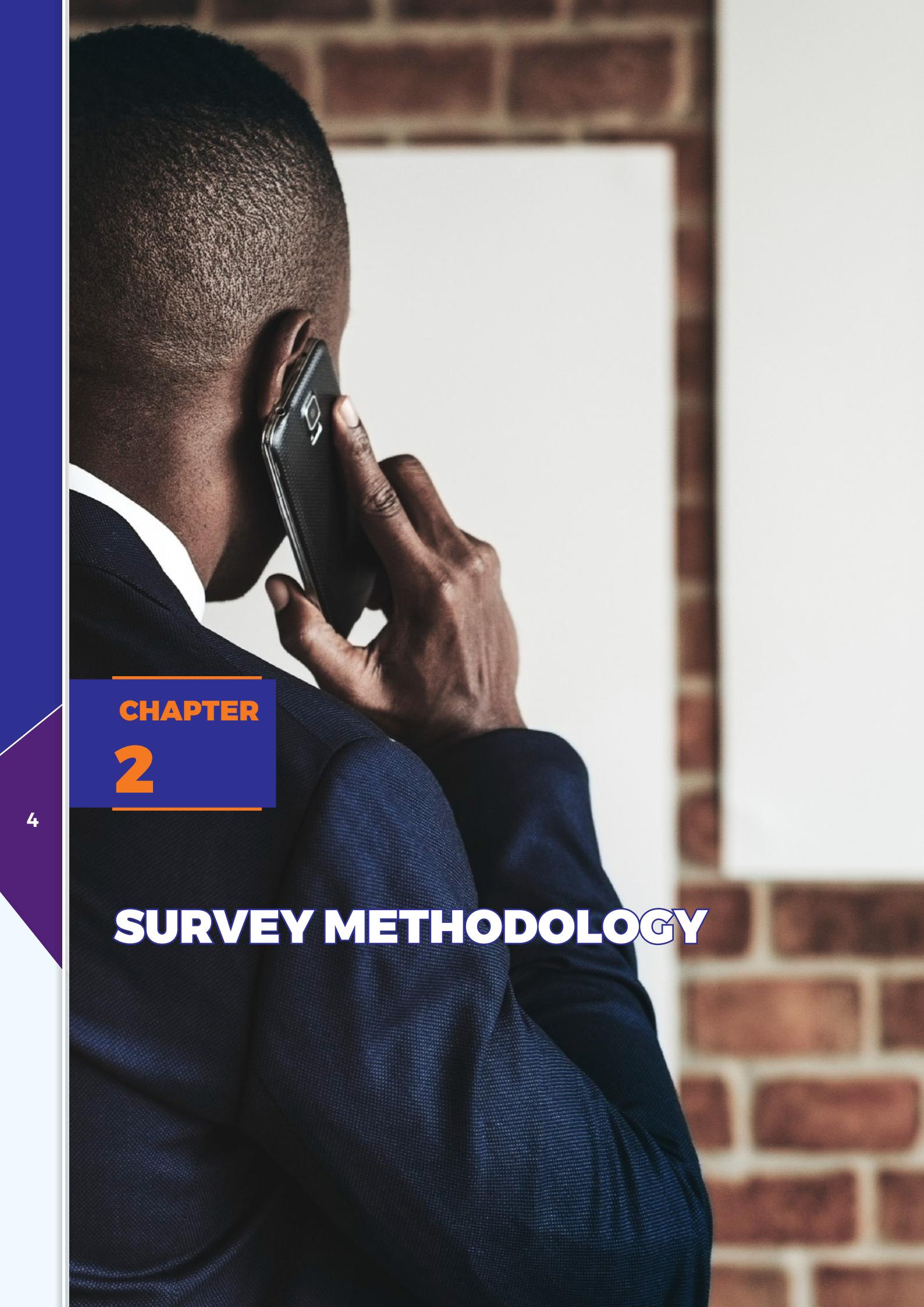
The global priority placed on ICTs as a catalyst for achieving sustainable development is also reflected in the United Nations (UNs) Sustainable Development Goals (SDGs). Specifically, the SDGs recognize ICTs as a key tool for accomplishing equitable and inclusive quality education, gender equality, inclusive and sustainable infrastructure and innovation as well as strengthening global partnerships for sustainable development. In addition to the UNs SDGs, the survey attempted to measure progress towards attainment of other key strategic commitments such as the World Summit on Information Society (WSIS) outcomes, International Telecommunications Union (ITU) connect 2030 Agenda and the ITU and United Nations Educational, Scientific and Cultural Organization (UNESCO) Broadband Commission which focusses on broadband connectivity among other issues.

At continental level, the African Union's Agenda 2063 provided some priority areas for consideration in the survey. The 2063 African Union agenda prioritizes the adoption

of ICTs in attaining self-driven and sustainable development through a well-educated citizenry, healthy and nourished citizens, environmentally sustainable industrialization, a high standard of living and enhanced agricultural productivity. Through the Agenda 2063, the continent aims to leverage on ICTs in order to achieve Africa's future aspirations of boosting economic growth, accelerating development and rapid transformation of the continent. The SADC Digital Transformation Strategy also provided a sub-regional context to matters for review as the block aims to build strategic capacities and capabilities for the Fourth Industrial Revolution anticipated to lead to several benefits, including the expansion of trade, job creation for youths and female workers, boosting productivity, enhancing financial inclusion and improving governments' accountability and capabilities. These global, regional, national and institutional priorities provided a good context for the 2022 National Survey on Access and Usage of ICTs.

1.4. Organisation of the Report

The survey report is organized in a coherent structure constituting ten chapters with each chapter providing insights on a particular aspect of the survey. The first chapter provides the context and rationale for the survey and outlines the objectives and scope of the survey. The second chapter presents details on the design of the survey and methodology adopted in the data collection as well as extrapolation of the data from the survey findings into population estimates. The third chapter provides a summary of the demographic and socio economic characteristics of the population from which the survey findings were drawn. Key indicators related to the population size, gender distribution, age structure as well as information on education and literacy among other attributes of the population are presented. The subsequent chapters focus on specific aspects related to access and usage of ICTs by households and individuals. Some of the issues considered include adoption of diverse ICT devices and services by households and individuals as well as risks and adverse incidents associated with adoption and usage of ICTs. A chapter on the adoption of electronic services as well as a specialised chapter on Digital Financial Services (DFS) aimed at reviewing the nature and extent of adoption and usage of such services is also included. The report also includes a chapter focusing on an emerging topic related to climate change, Electronic Waste management, as well as a dedicated chapter on the adoption of postal and courier services which is one of the services regulated by ZICTA. The last chapter of the report provides a summary of the key findings of the survey and their implications on the policy and regulatory landscape. Some recommendations arising from the key findings of the survey are also proposed in the last chapter.

A black and white photograph of a man from the side and back. He is wearing a dark suit jacket over a white shirt. He is holding a black smartphone to his ear with his right hand. The background shows a brick wall.

**CHAPTER
2**

SURVEY METHODOLOGY

2. SURVEY METHODOLOGY

This chapter provides an overview of the methodology adopted in conducting the 2022 National Survey on Access and Usage of ICTs in Zambia. The chapter provides details on the target population for the survey as well as the techniques used in establishing a representative sample for the population. Key considerations that were taken into account during the analysis of the data are also presented as an insight to the analysis strategy adopted for the survey. The methodology was tailored to respond to the objectives of the survey based on the available data collected from the households and individuals.

2.1. Target Population

The National Survey on Access and Usage of ICTs was designed to cover a representative sample of households and individuals residing in both rural and urban parts of the country. This allowed for estimates to be made covering the entire population of individuals as well as disaggregation to rural and urban segments of the population. The survey was conducted in all the ten (10) provinces of Zambia and targeted the population of all individuals aged 10 years and above. Consequently, the estimates from the survey were extrapolated to represent the population above the age of ten (10).

2.2. Sampling Approach

2.2.1. Sampling Method

A two-stage stratified-cluster sampling method was adopted for the National Survey on Access and Usage of ICTs. The survey was designed to cover a representative sample of 6,466 households. This sample size was considered adequate to provide reliable national estimates for the population. A total of 320 Enumeration Areas (EAs) were drawn from 38 000 EAs nationwide. In order to increase the reliability and efficiency of the sample, the sample size was increased from 246 EAs considered in the 2018 National Survey on Access and Usage of ICTs to 320 EAs in 2022 National Survey on Access and Usage of ICTs. The survey was designed to produce reliable estimates at national, provincial, urban and rural levels.

2.2.2. Sampling Frame

The sampling frame for the 2022 National Survey on Access and Usage of ICTs was based on the 2022 census of population and housing. The country is administratively demarcated into 10 provinces, which are further subdivided into 116 districts. The districts are further subdivided into constituencies, which are in turn divided into wards. For the purpose of conducting the household survey, wards were further divided into EAs. The EAs constituted the Primary Sampling Unit (PSU) for the survey. In order to have reasonable estimates at provincial level and at the same time, take into account variations in the sizes of the provinces, the survey adopted the optimal square root allocation method. This approach offered a better balance between equal and proportional allocation, that is, small sized strata (province) were allocated larger samples compared to the case if a proportional allocation was adopted.

2.2.3. Sample Allocation

Sample allocation to the provinces was done using optimal square root allocation method. This method moderates oversized provinces (strata) and overestimates the undersized provinces. The main advantage of this method is that it moderates any errors that may arise from either overstating or understating the size of the population.

The sample allocation of households and EAs by province is outlined in table 1 below:

Table 1: Sample Allocation by Province

Domain / Stratum	Household Allocation			Allocation of EA		
	Name	Urban	Rural	Total	Urban	Rural
Central	249	403	653	12	20	32
Copperbelt	492	266	778	25	13	38
Eastern	204	509	713	10	25	35
Luapula	199	423	622	10	21	31
Lusaka	551	267	837	28	13	41
Muchinga	163	356	518	8	18	26
Northern	199	419	618	10	21	31
North western	174	326	500	9	16	25
Southern	254	409	663	13	20	33
Western	164	400	564	8	20	28
Total	2648	3778	6466	133	187	320

2.2.4. Sample Selection

The sample was selected using a two-stage stratified-cluster sampling method. The first stage involved selection of clusters corresponding to EAs from the sampling frame for this survey. The second stage involved selection of households in the selected clusters. In each cluster, households were selected using systematic random sampling and all eligible persons 10 years and above were interviewed in each selected household.

2.2.5. Selection of Clusters

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

For each stratum (province, rural/urban), a list of EAs, ordered by EA identification numbers was developed. The population size of each EA was used as the measure of size. 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 EAs allocated to the stratum, a_h .

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

where M_{hi} is the population in i^{th} EA in stratum h ,

$\sum_{i=1}^{N_h} M_{hi}$ is the size of the stratum (total population in the stratum according to the census) and a_h is the number of EAs 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 EAs from the selection numbers, the calculations were as follows: $S_{hi} = R_h + [I_h * (i-1)]$, where $i = 1, 2, \dots, n_h$ rounded up to the next integer. The sample EA in the stratum was the one with the cumulated measure of size closest to the selection number, without exceeding it.

2.3. Selection of Households

A frame of households was obtained from the 2022 census listing for each selected EA. Sampling serial numbers were sequentially assigned to all households that were in the selected EAs obtained from the 2022 census listing frame.

The total number of households in the EA (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 EA
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.

2.4. Estimation

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

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 was, thus, given as

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

where: P_{hi} is the first stage sampling probability of (EA), a_h is the number of EAs selected in stratum h , M_{hi} is the size (population) of the i^{th} EA in stratum h , and $\sum M_{hi}$ is the total size of stratum h .

The selection probability of the household was calculated as: $p_h = \frac{1}{I_h}$

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

Let y_{hij} be an observation on variable Y for the j^{th} household in the i^{th} EA 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} EA 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 was given by: $y = \sum_{h=1}^H y_h$

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

2.5. Data Collection

2.5.1. Survey Instruments

Two instruments were used in the data collection exercise. A questionnaire for households was administered to all the selected households while another questionnaire was administered to all the individual members of the household aged above 10. Both the questionnaires had structured questions consisting of a combination of closed and open-ended questions. The questionnaires were administered through face to face interviews with respondents using a CAPI. The questionnaires were designed based on the standard ITU manual for measuring access and usage of ICTs by households as a key reference. The 2022 ICT survey questionnaire was also expanded to incorporate some new questions related to E-waste management, DFS, Postal and Courier services, Electronic services among other attributes. The development of the questionnaires was consultative to ensure that the survey was responsive to emerging needs. A combination of closed, open-ended, single and multiple response questions were adopted to assist with identifying distinct attributes associated with access and usage of ICTs among households and individuals.

2.5.2. Recruitment and Training of Field Staff

Enumerators were recruited from among ZamStats staff in the provinces and among students in institutions of higher learning in the country. In November 2022, enumerators and supervisors underwent a ten day training session in the respective provinces to familiarize them with the questionnaires.

2.5.3. Data collection and Monitoring

The data collection was carried out by 22 interviewing teams each assigned to a province. Interviews were conducted only in the selected households over a three week period. Face to face interviews were conducted using the Computer Assisted Personal Interviewing (CAPI) among all the household members aged 10 and above that were present at the time of the interview in the selected households. The survey solutions application for Android, a software package for capturing and digitizing data from Census and surveys developed by the World Bank was used on the CAPI devices. The use of CAPI was useful in ensuring that data was stored in real time and evaluated for completeness.

2.6. Data Processing

2.6.1. Data Cleaning Process

The data cleaning process involved the identification of incomplete, incorrect, inaccurate, irrelevant data and then replacing, modifying or deleting the affected 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 process of data cleaning also involved removing typographical errors as well as validating and correcting values against a known list of entities.

2.6.2. Data Analysis and Reporting

The cleaned datasets were analyzed in line with the objectives of the survey using SPSS software. The indicators assessed were based on the scope and objectives of the survey and were disaggregated across various demographic and socio- economic variables for reporting. The reporting was based on establishing the extent of progress attained in some of the key indicators since the last survey was undertaken as well as reporting on the new attributes included in the 2022 survey.

**CHAPTER
3**

DEMOGRAPHIC AND SOCIO-ECONOMIC CHARACTERISTICS OF THE POPULATION

3. DEMOGRAPHIC AND SOCIO-ECONOMIC CHARACTERISTICS OF THE POPULATION

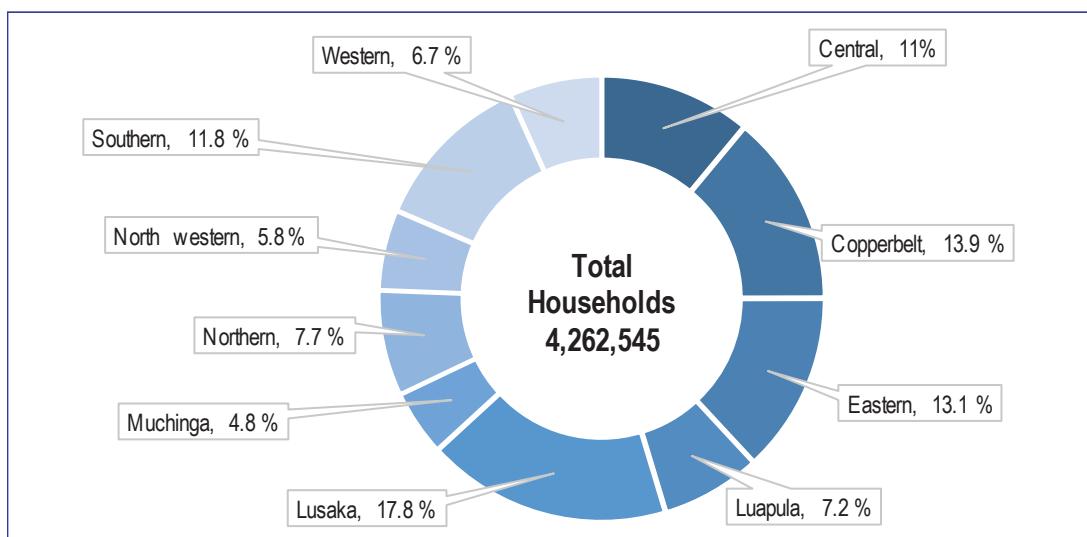
This chapter provides insights into the demographic and socio-economic characteristics of all the households and individuals across the country at the time of the survey. The demographic and socioeconomic characteristics that are presented include but are not limited to the distribution of households 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 were 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.

3.1. Demographic and Socio-Economic Characteristics of Households

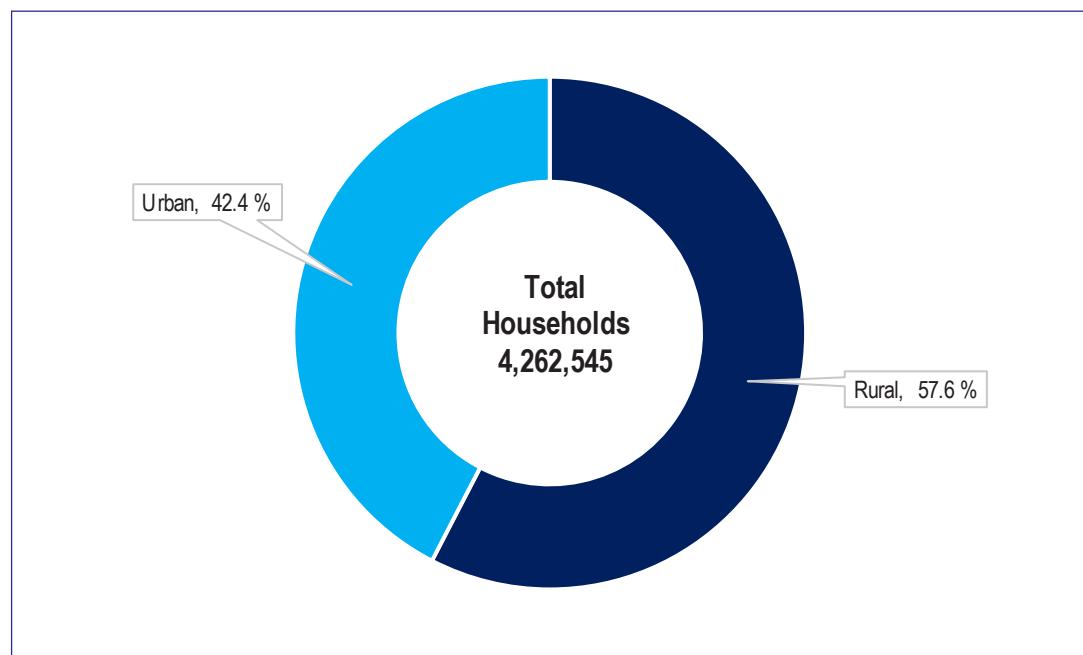
3.1.1. Distribution of Households

The survey defined a household as 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. This definition of a household is as prescribed in the compendium of Statistical concepts and Definitions for the National Statistical System. The survey estimated that there were a total of 4.3 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 17.8 percent, followed by the Copperbelt Province which accounted for 13.9 percent. North-Western Province and Muchinga Province accounted for the least proportions of the total number of households constituting 5.8 percent and 4.8 percent, respectively.

Figure 1: Distribution of Households across Regions; 2022



There were relatively more households in rural areas than urban areas. Specifically, 57.6 percent of the total number of households across the country were estimated to be located in rural areas while 42.4 percent of the total number of households were located in urban areas.

Figure 2: Distribution of Households across Regions; 2022

3.1.2. Average Size of Households

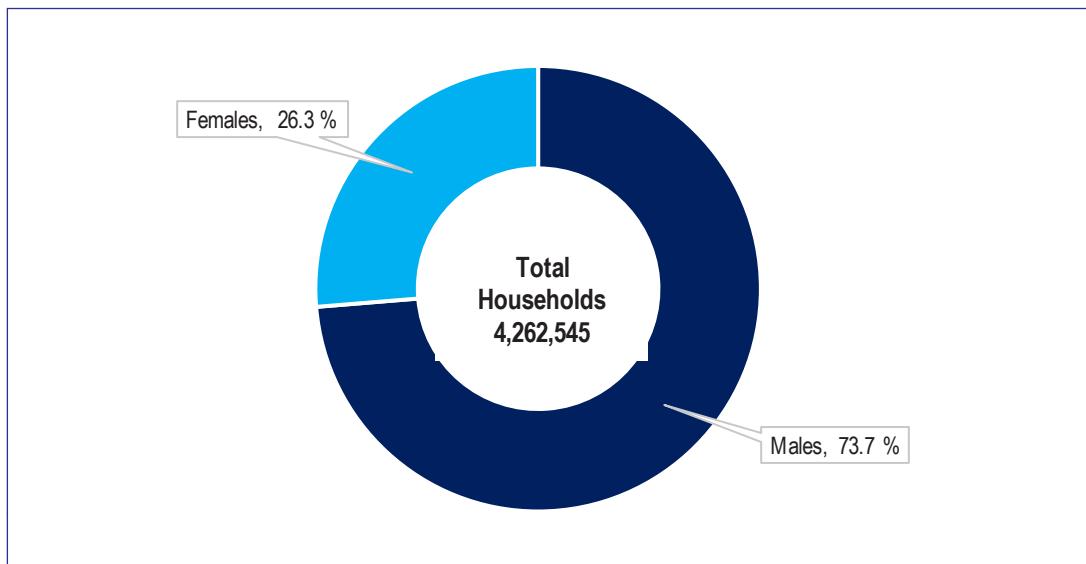
The average size of a household in Zambia was estimated at 4.6 (approximately 5 people). The average size of households in rural areas was estimated at 4.8 (approximately 5 people) while the average size of households in urban areas was estimated at 4.3 (approximately 4 people). The survey revealed that households headed by males had a larger average size of the household amounting to 4.8 (approximately 5 people) compared to the average size of the households headed by a female that amounted to 4.1 (approximately 4 people).

Table 2: Average Size of Households by Sex of Head of Household and Region

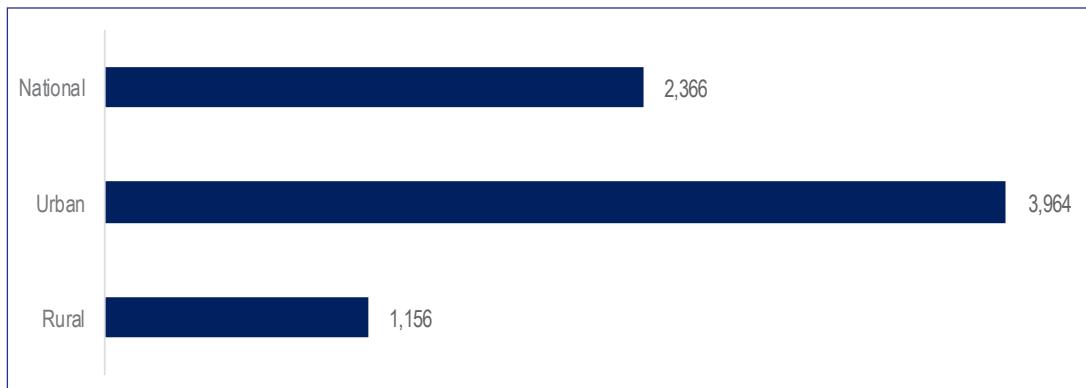
Region	All Households	Male Headed Households	Female headed households
National	4.6	4.8	4.1
Rural	4.8	5.0	4.3
Urban	4.3	4.5	3.8

3.1.3. Distribution of Heads of Households by Sex

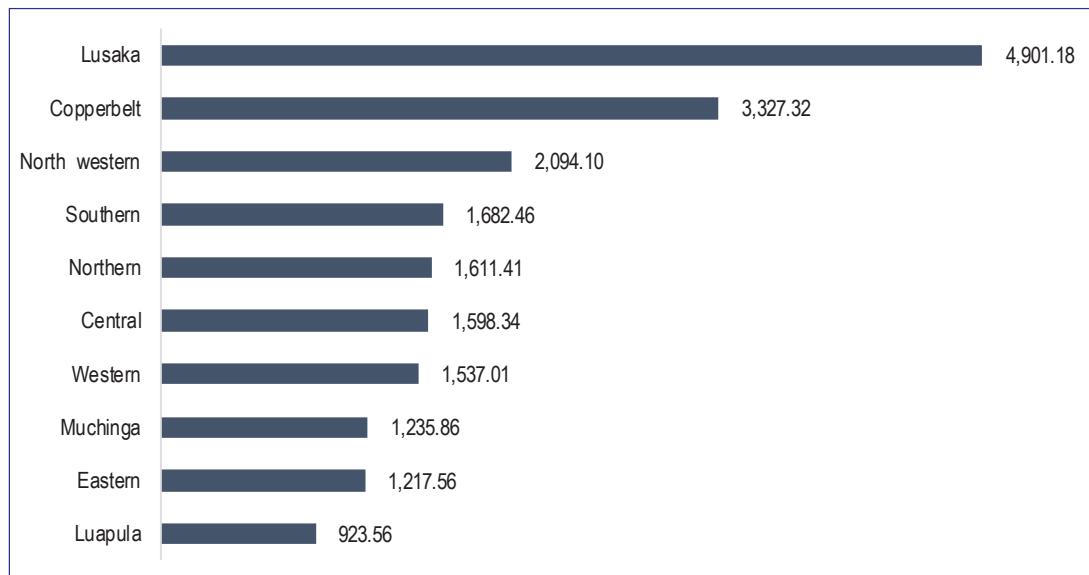
There were more male headed households than female headed households across the country. Specifically, 73.7 percent of the households were headed by males while only 26.3 percent of the households were headed by females.

Figure 3: Distribution of Household Heads by Sex; 2022**3.1.4.****Distribution of Households by Income Level**

The average income from all sources for households was estimated at ZMW 2,366.00. Households that were based in urban areas had a relatively higher average income from all sources compared to households that were based in rural areas. Specifically, the average income from all sources for households that were based in urban areas was ZMW 3,964.00 while the average income for rural-based households was ZMW 1,156.00.

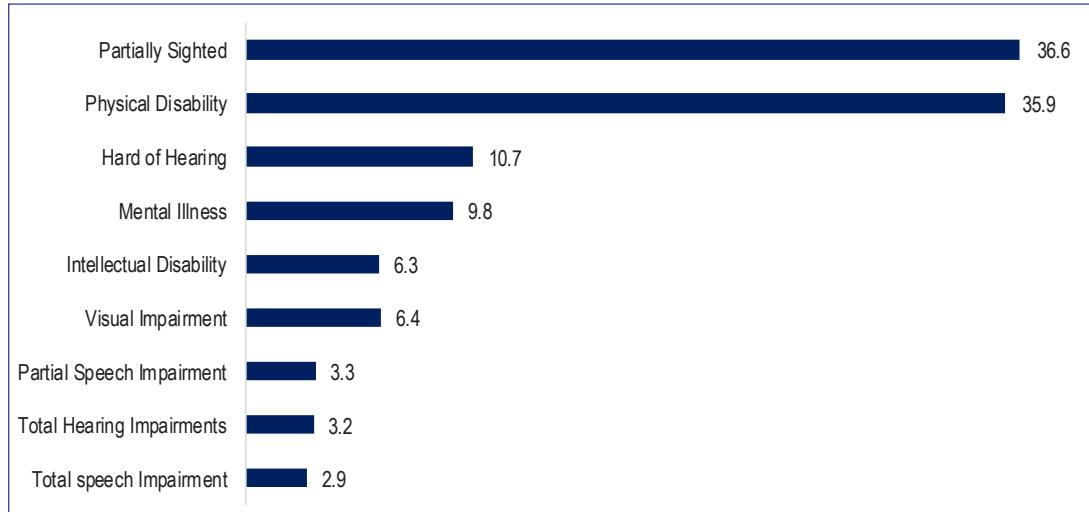
Figure 4: Distribution of Incomes for Households across Regions, 'ZMW'; 2022

Average incomes for households were determined to be highest in Lusaka Province, Copperbelt Province and North Western Province estimated at ZMW 4,901.18, ZMW 3,327.32 and ZMW 2,094.10 respectively. Muchinga Province, Eastern Province and Luapula Province had the lowest average income for households amounting to ZMW 1,234.86, ZMW 1,217.56 and ZMW 923.56 respectively.

Figure 5: Average Income of Households by Province 'ZMW'; 2022

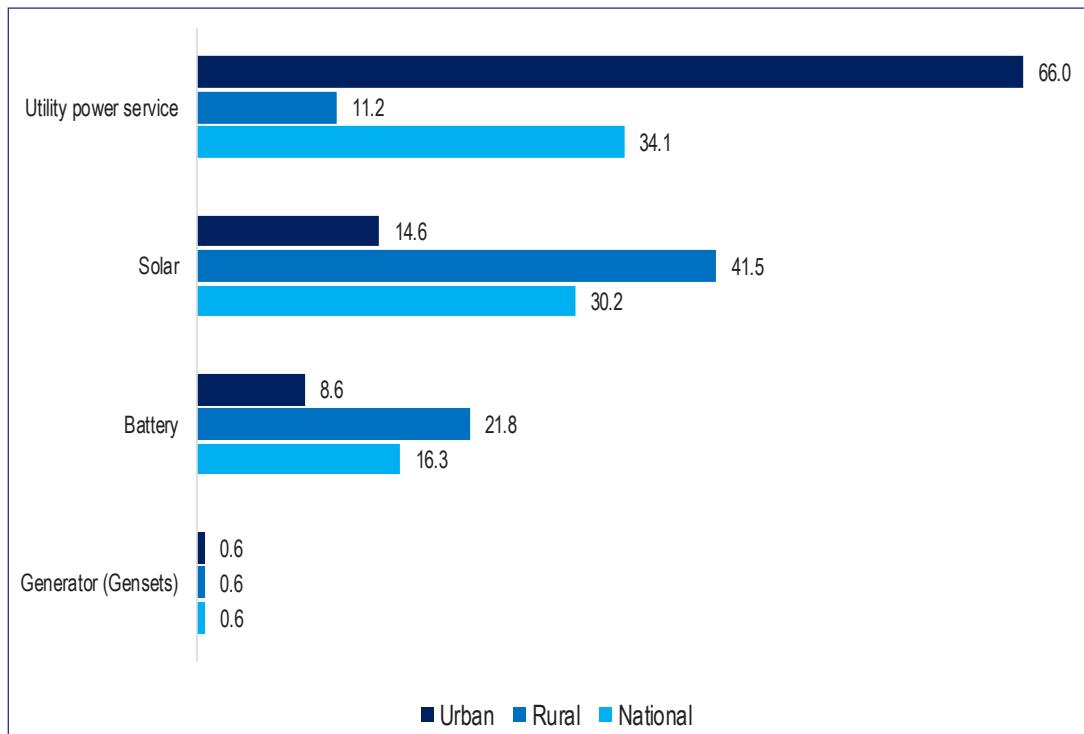
3.1.5. Distribution of Household Heads by Disability

The survey recorded a total of 4.0 percent of households that were headed by persons with disabilities. Amongst these households, the most frequent disability was partially sighted heads of household which was at 36.6 percent, followed by physical disability at 35.9 percent and hard of hearing at 10.7 percent. The least prevalent type of disability was total speech impairment accounting for 2.9 percent of the total number of people that reported that they had a disability.

Figure 6: Distribution of Household Heads by Disability

3.1.6. Access to Electricity by Type

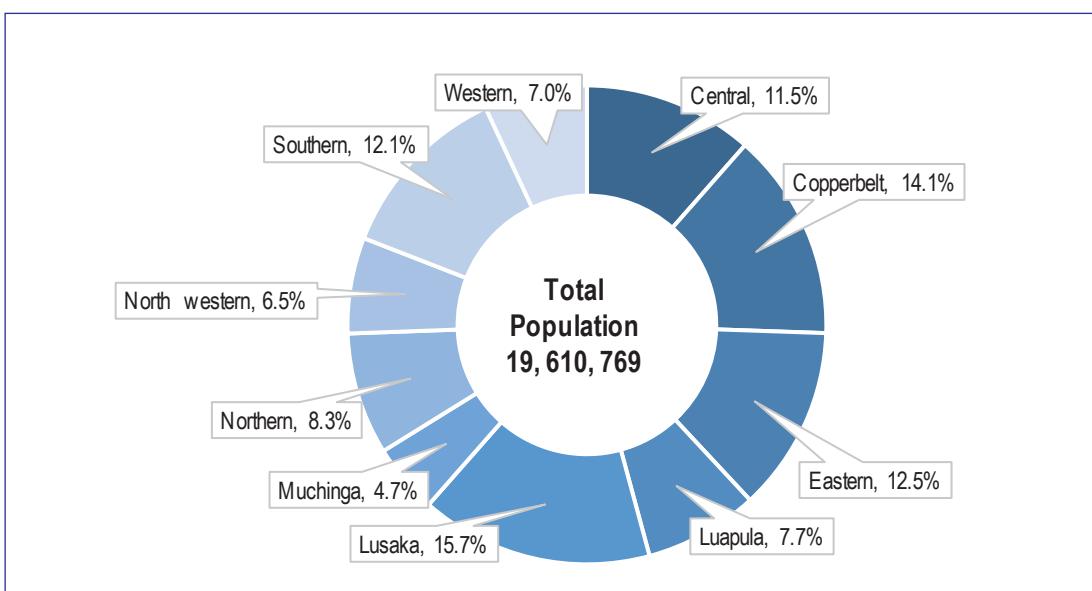
The survey revealed that 34.1 percent of the total number of households across the country had access to utility power while 30.2 percent of the households had access to Solar. Further, 66.0 percent of the households based in urban areas reported that they had access to electricity supplied by power utility companies while only 11.2 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 0.6 percent of the total number of households in the country

Figure 7: Access to electricity by Households across Type of Source of Electricity

3.2. Characteristics of the Population

3.2.1. Distribution of the Population by Province

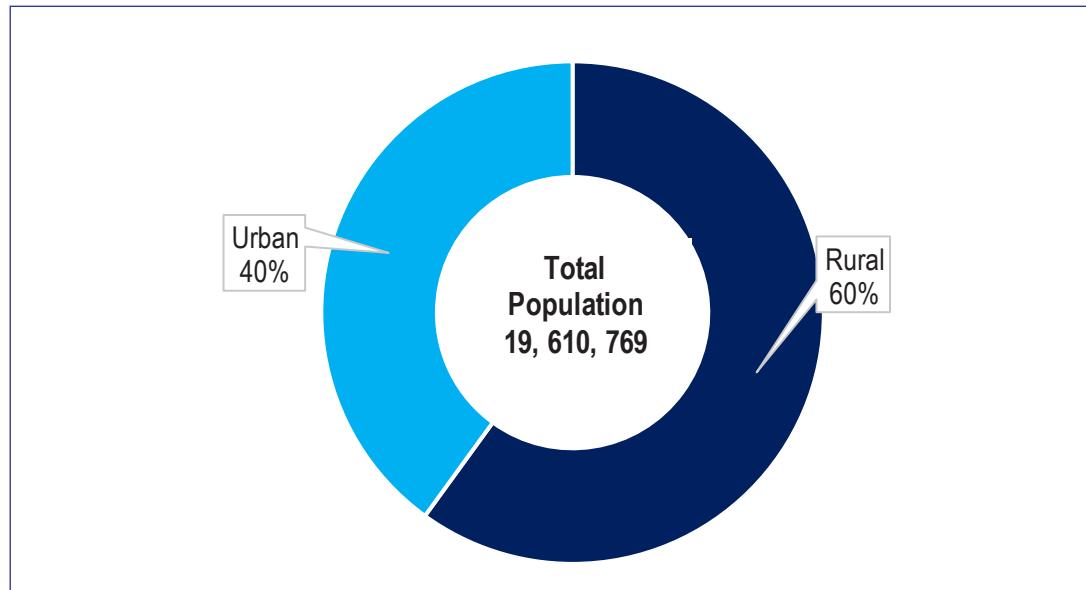
The survey had a national coverage encompassing all the ten provinces of Zambia. The estimated population size was 19.6 million and was based on the 2022 National Census. Lusaka Province accounted for the highest proportion of the population accounting for 15.7 percent (3,079,964), followed by Copperbelt Province which accounted for 14.1 percent (2,757,539). North-Western Province and Muchinga province accounted for the smallest proportion of the total population estimated at 6.5 percent (1,270,028) and 4.7 percent (918,296) respectively.

Figure 8: Distribution of the Population by Province, 2022

3.2.2. Distribution of the Population by Region

The majority of individuals in the country were based in rural areas compared to urban areas. Specifically, 60.0 percent of the population were based in rural areas while 40.0 percent were based in urban areas.

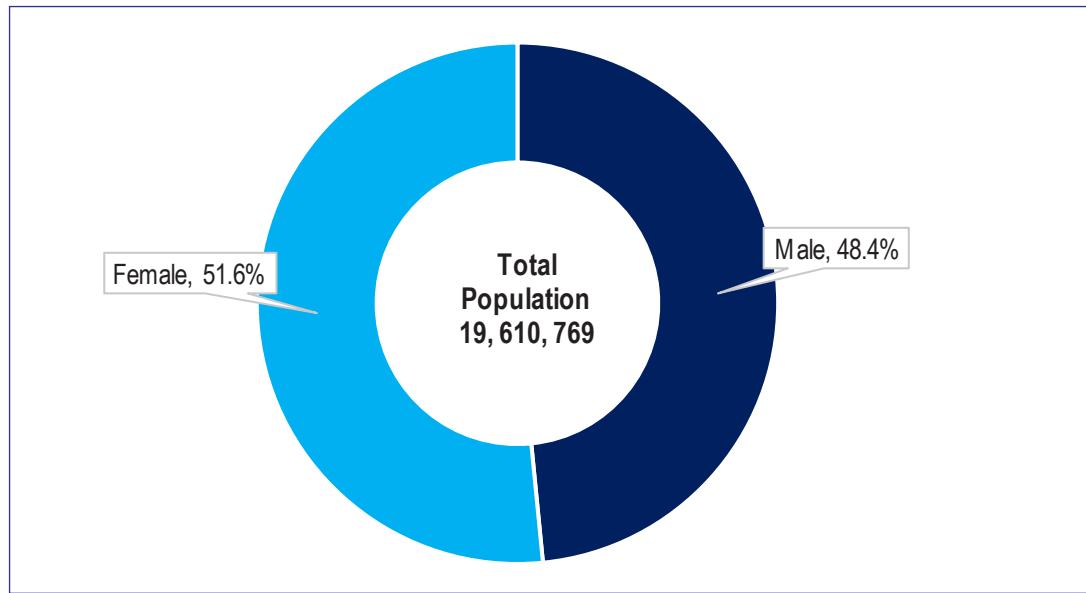
Figure 9: Distribution of the Population by Region; 2022



3.2.3. Distribution of the Population by Sex

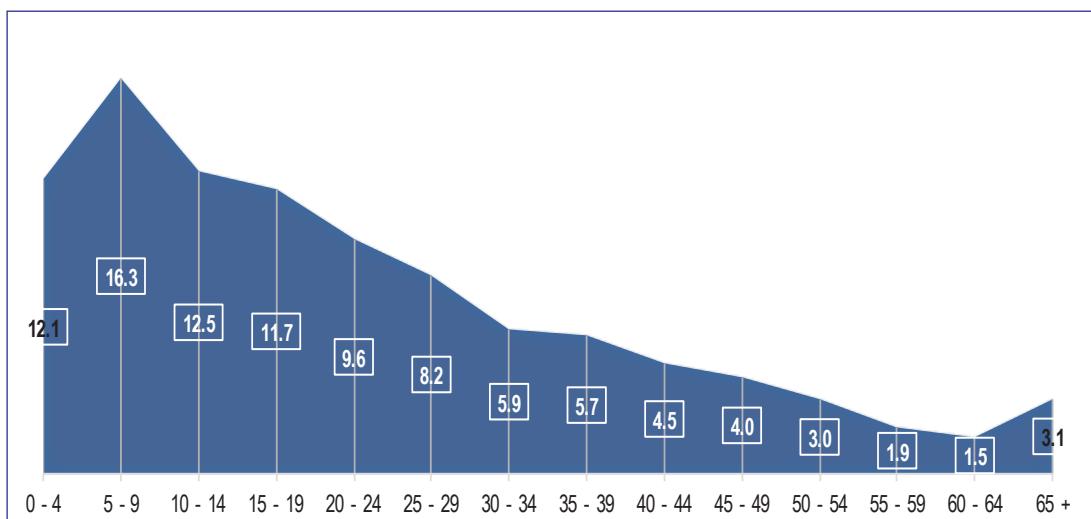
The distribution of the population according to the individuals' sex revealed that 51.6 percent of the population were females while 48.4 percent were males.

Figure 10: Distribution of the Population by Sex



3.2.4. 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 16.3 percent of the total population. Over 76.3 percent of the population was aged below 35 years while 3.1 percent of the population was aged above 65 years.

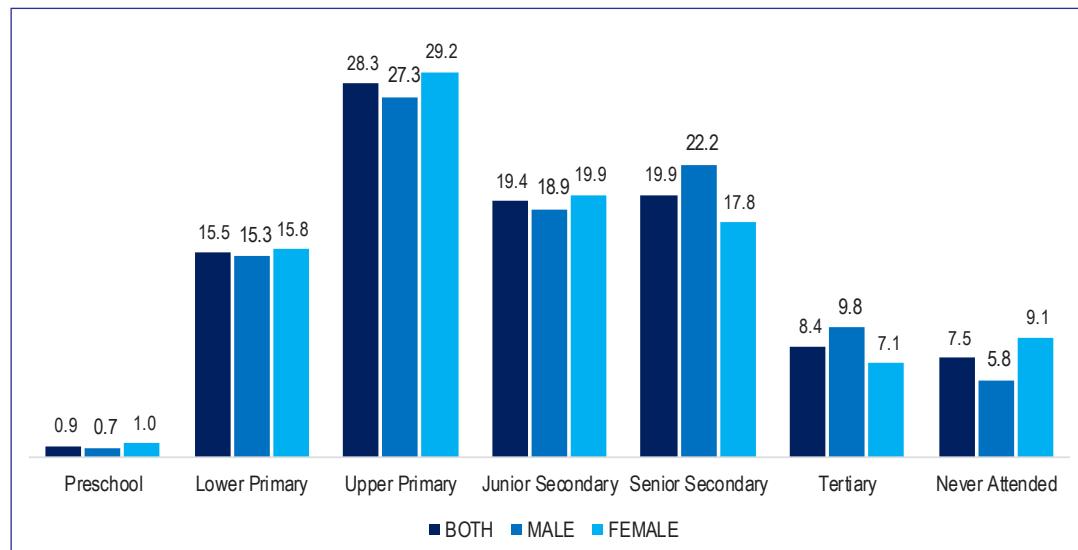
Figure 11: Percentage Distribution of the Population by Age Group

3.2.5. Distribution of Population by Level of Education Attained

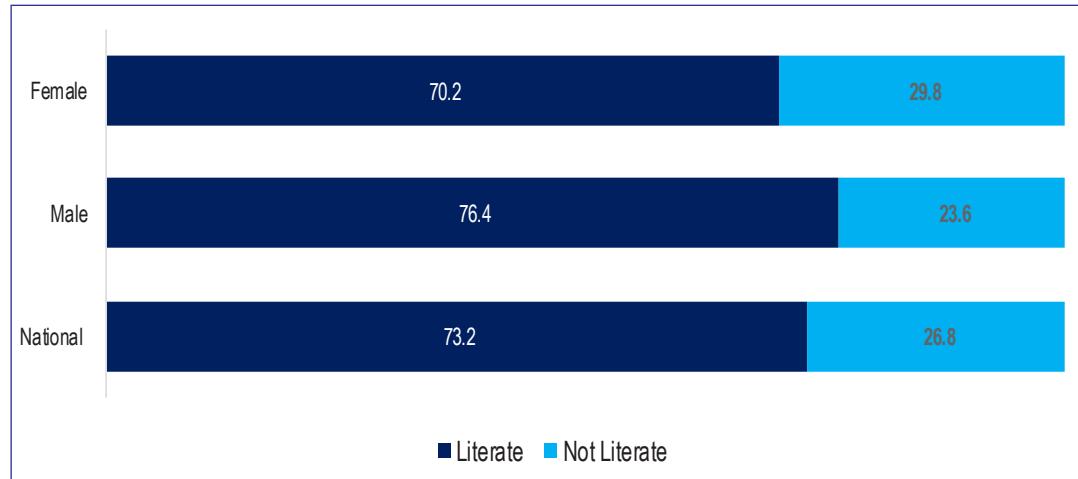
The largest proportion of the population aged 10 years and above reported that they had attained primary education accounting for 43.8 percent of the total population. On the other hand, the percentage of the population aged 10 years and above that indicated that they had completed tertiary education accounted for 8.4 percent proportion. Noteworthy also, is that 7.5 percent of the population aged 10 years and above had not attained any level of education.

There were more females than males who indicated primary education and lower secondary as the highest level of education attained. Specifically, from the total population of 10 years and above, 15.8 percent females indicated that lower primary education was the highest level of education they had attained while 29.2 percent females indicated that upper primary was the highest level of education they had attained and 19.9 percent females indicated lower secondary as the highest level of education attained. This is in comparison to 15.3 percent males who indicated that they had attained lower primary as the highest level of education, 18.9 percent males indicated Junior Secondary as the highest level of education attained and 27.3 percent males indicated that upper primary was the highest level of education they had attained.

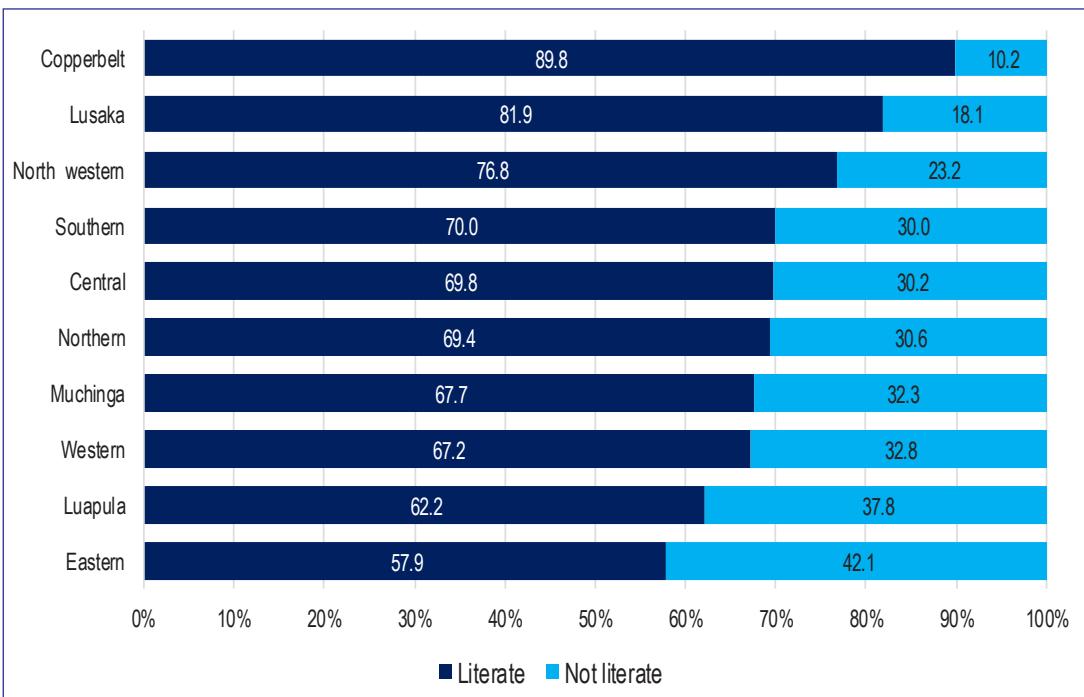
The percentage of males who had secondary and tertiary as their highest level of education was higher than that of females. Specifically, 22.2 percent males indicated that the highest level of education attained was senior secondary and 9.8 percent males indicated that tertiary education was the highest level of education they had attained. This is in comparison with 17.8 percent females who indicated that senior secondary education was the highest level of education attained and 7.1 percent females indicated tertiary education as the highest level of education attained.

Figure 12: Distribution of Population by Level of education Attained by Sex**3.2.6. Population Distribution of Literacy by Sex**

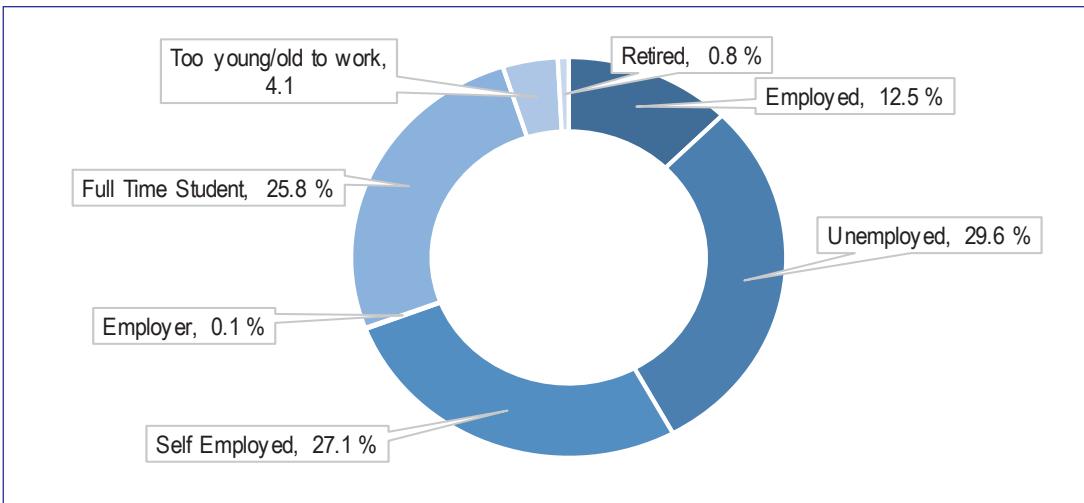
The percentage of persons aged 10 years and older that were literate was 73.2 percent. The literacy rate within the male population aged 10 years and older was 76.4 percent while the literacy rate within the female population aged 10 years and older was 70.2 percent.

Figure 13: Population Distribution of Literacy by Sex**3.2.7. Population Distribution of Literacy Rate by Province**

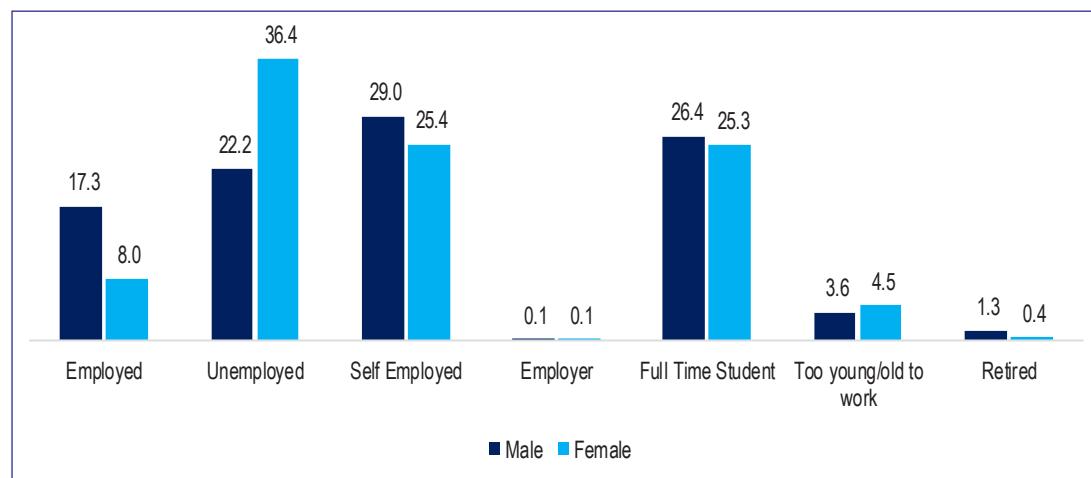
Copperbelt Province recorded the highest literacy rate at 89.8 percent followed by Lusaka province with literacy rate at 81.9 percent. In contrast, Eastern province recorded the lowest literacy rate at 57.9 percent.

Figure 14: Population Distribution of Literacy Rate by Province**3.2.8.****Employment Distribution**

The proportion of the population aged 10 years and above reported that they were unemployed accounting for 29.6 percent of the total population. On the other hand, the percentage of the population aged 10 years and above that indicated that they were self-employed and employed accounted for 27.1% and 12.5 % respectively of the total population. Noteworthy also, is that 25.8% percent of the population aged 10 years and above were full time students.

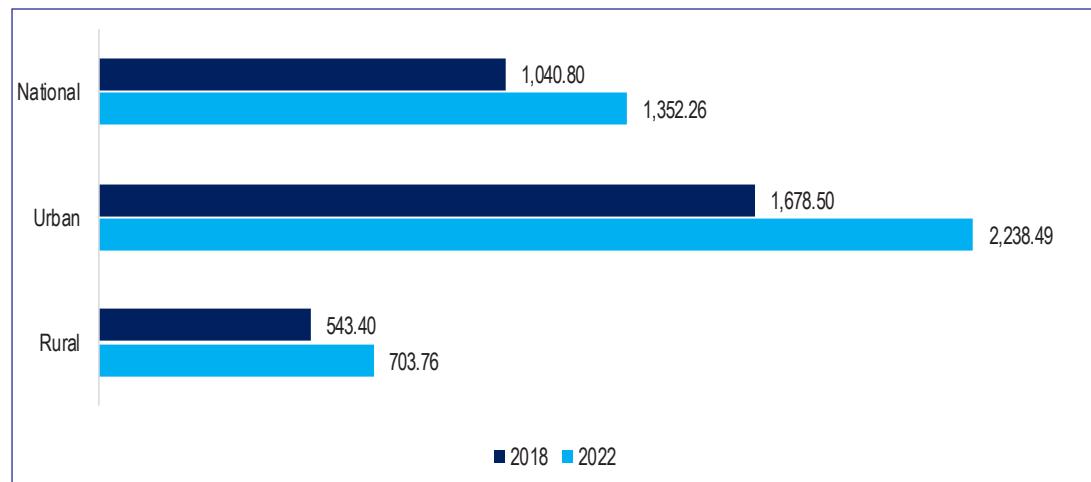
Figure 15: Employment Distribution**3.2.9.****Employment Distribution by Sex**

There was a relatively higher proportion of females that indicated that they were unemployed while a higher proportion of males indicated that they were self-employed and employed. Specifically, 36.4 percent of the females indicated that they were unemployed compared to 22.2 percent of the males while 29.0 percent and 17.3 percent of males reported that they were self-employed and employed respectively. The proportion of the Males and Females who indicated to be full time students was 26.4 percent and 25.3 percent respectively.

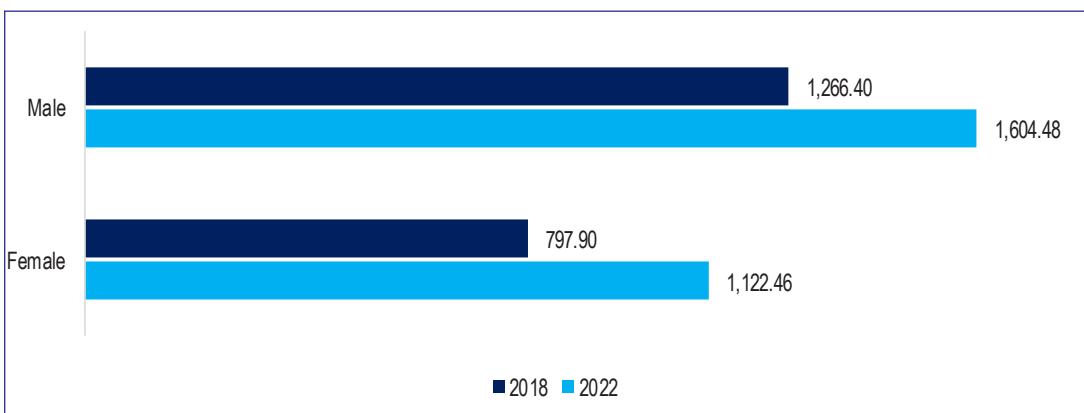
Figure 16: Employment Distribution by Sex

3.2.10. Distribution of the Population by Income Level

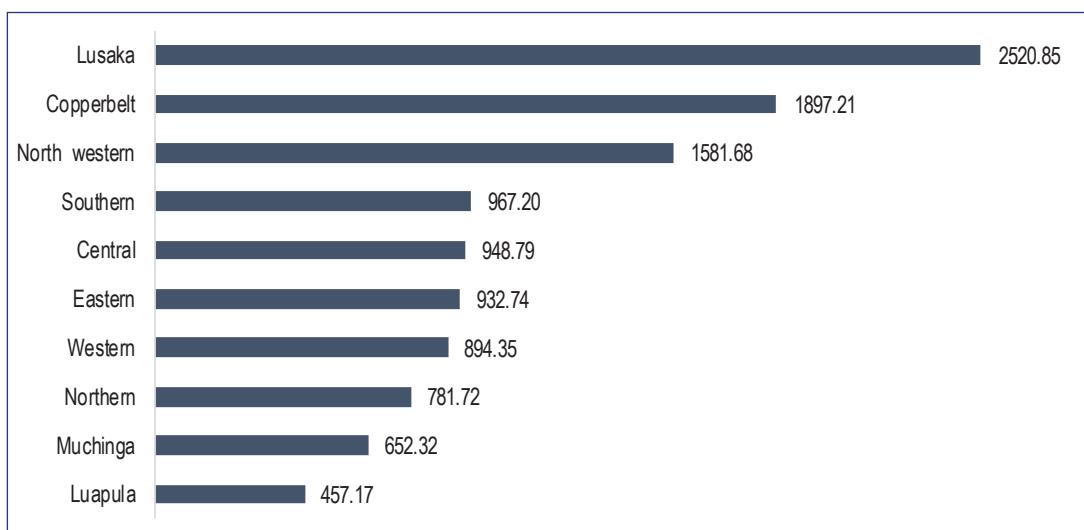
The average income from all sources for individuals aged 10 years and above was estimated at ZMW 1,352.26 in 2022 from ZMW 1,040.80 in 2018. Individuals aged 10 years and above that were based in urban areas had a relatively higher average income from all sources compared to individuals aged 10 years 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 ZMW 2,238.49 in 2022 from ZMW 1,678.50 in 2018. The average income for rural-based individuals aged 10 years and above was ZMW 703.76 in 2022 from ZMW 543.40 in 2018.

Figure 17: Distribution of Incomes for Individuals across Regions, 'ZMW'; 2022

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 1,604.48 in 2022 from ZMW 1,266.40 in 2018. The average income of female individuals aged 10 years and above was estimated at ZMW 1,122.46 in 2022 from ZMW 797.90 in 2018.

Figure 18: Average Income of Individuals by Sex 'ZMW'; 2022

Average Incomes were established to be highest in Lusaka Province, Copperbelt Province and North Western Province estimated at ZMW 2,520.85, ZMW 1,897.21 and ZMW 1,581.68 respectively. Northern Province, Muchinga Province and Luapula Province had the lowest average income for individuals aged 10 years and above amounting to ZMW 781.72, ZMW 652.32 and ZMW 457.17 respectively.

Figure 19: Average Income of Individuals aged above 10 Years by Province 'ZMW'; 2022

3.2.11. Distribution of the Population by Disability

Disability is classified in three areas that are inter-related in accordance with the International Classification of Functioning, Disability and Health (ICF). These areas include the following:

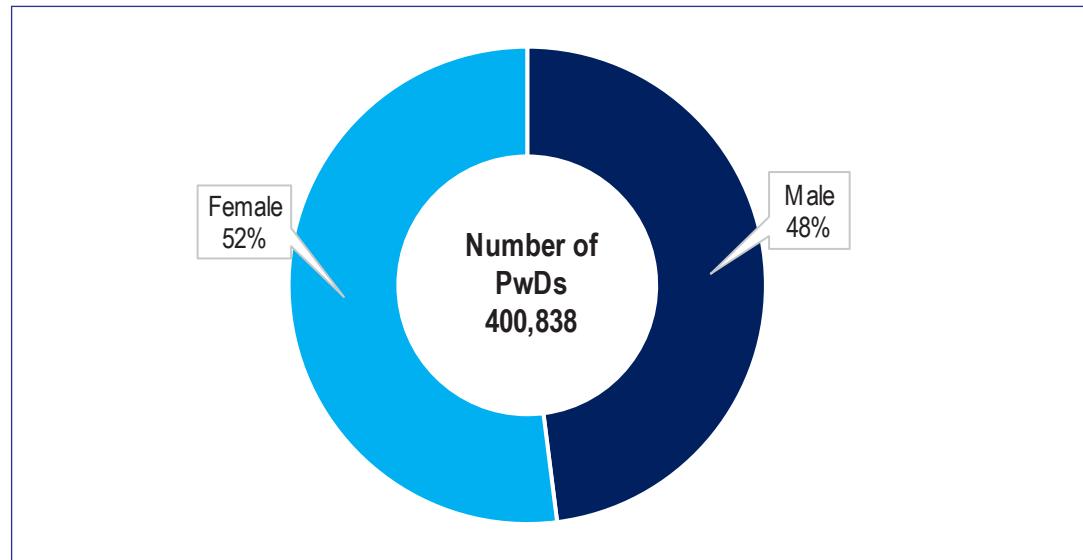
Impairments: problems in body function or changes in body structure such as blindness;

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

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. The proportion of the entire population that reported that they had a disability was estimated at 2.0 percent. Specifically, out of the total number of Persons Living with Disabilities, 52.0 percent were females and 48.0 percent were males.

Figure 20: Distribution of the Population by Disability





**CHAPTER
4**

ACCESS AND USAGE OF ICT PRODUCTS AND SERVICES

4. ACCESS AND USAGE OF ICT PRODUCTS AND SERVICES

This chapter provides a summary of the key findings on 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 in 2022 relative to findings from previous surveys. An attempt is also made to identify 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 as well as those that may be excluded from access and usage. The information presented in this chapter is disaggregated by region and in some instances further analysis is provided across various demographic and socio-economic characteristics. Notably, a sex disaggregated analysis is provided relating to access and usage of ICT products and services.

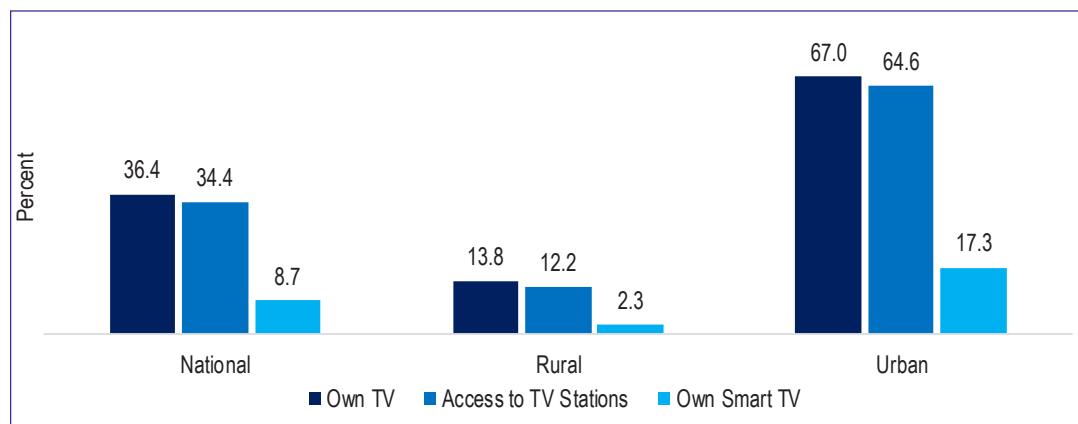
4.1. Access and Usage of ICTs by Households

4.1.1. Ownership and Usage of Televisions Sets

4.1.1.1. Ownership of Television Sets and Access to Television Stations

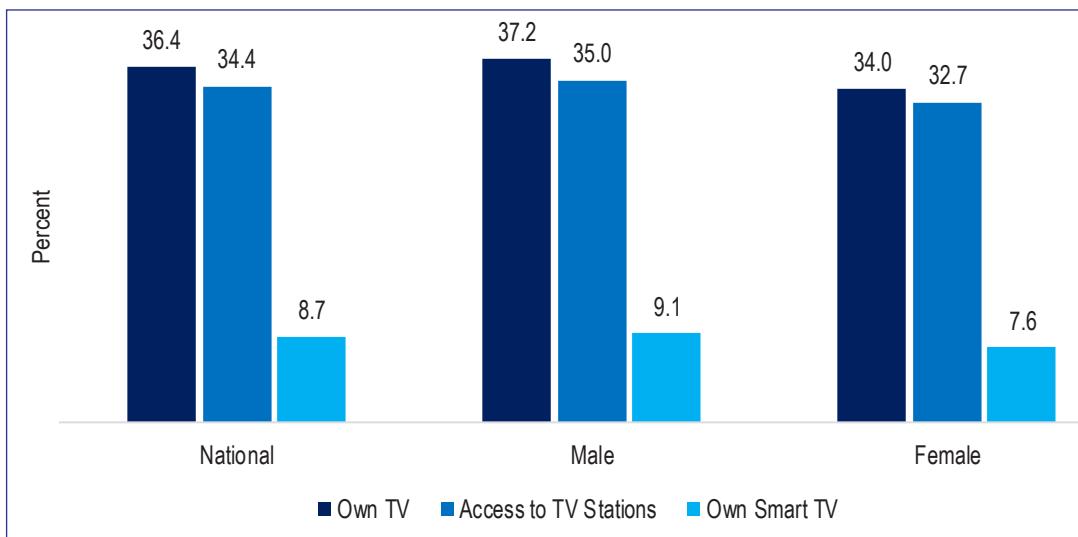
The survey revealed that 36.4 percent of all the households in the country owned a working television set while only 8.7 percent of the households owned a working smart television. The proportion of households with a working television set in urban areas was significantly higher than that of rural areas estimated at 67.0 percent and 13.8 percent respectively. Similarly, the proportion of households with a smart television in urban areas was significantly higher than that of rural areas representing a disparity of 15.0 percentage points. With regards to television services, 34.4 percent of households in the country had access to television services which was relatively higher than the proportion of households that had access to television services in 2018. Specifically, the proportion of households that had access to television services increased to 34.4 percent in 2022 from 33.8 percent in 2018. It was also observed that 64.6 percent of households in urban areas had access to television services, representing a 52.4 percentage point higher proportion than that of households in rural areas.

Figure 21: Ownership of Television Sets and Access to Television Services: 2022



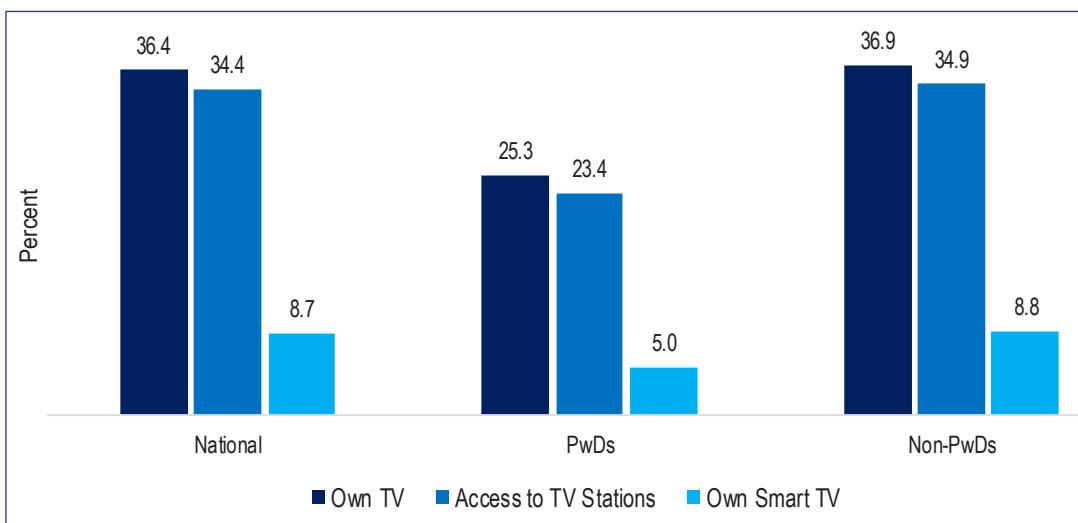
The proportion of male headed households that owned a television set or had access to television services was comparatively higher than that of female headed households. Notably, 37.2 percent of male headed households owned a television set while 34.0 percent of female headed households owned a television set. Similarly, the proportion of male headed households with access to television stations, estimated at 35.0 percent, was higher than that of female headed households by 2.3 percentage points.

Figure 22: Ownership of Television Set and Access to Television Services by Sex of Household Head: 2022



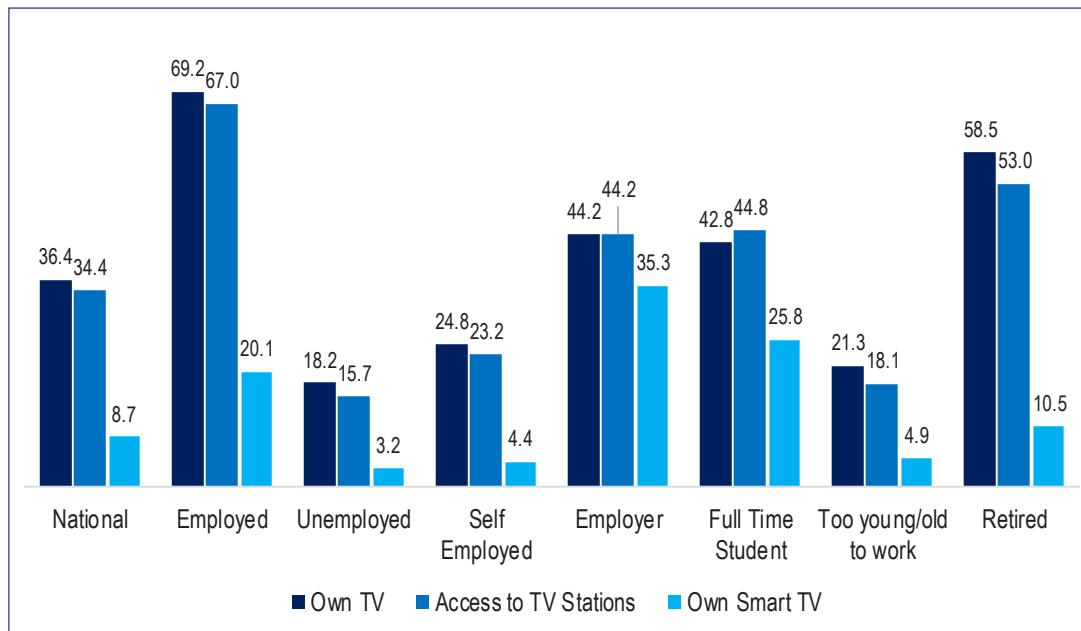
It was observed that the proportion of households headed by Persons with Disabilities (PwDs) that owned a television set or had access to television services was significantly lower than that of households headed by individuals without disabilities. Of the households headed by Persons with Disabilities, 25.3 percent owned television sets while 36.9 of households headed by those without disabilities owned television sets representing a disparity of 11.6 percent. There was a similar disparity with regards to smart television ownership which was estimated at 3.8 percentage points. Further, the fraction of households headed by Persons with Disabilities with access to television services was lower than that of households headed by persons without any disabilities.

Figure 23: Ownership of Television Set and Access to Television Services by Disability Status; 2022



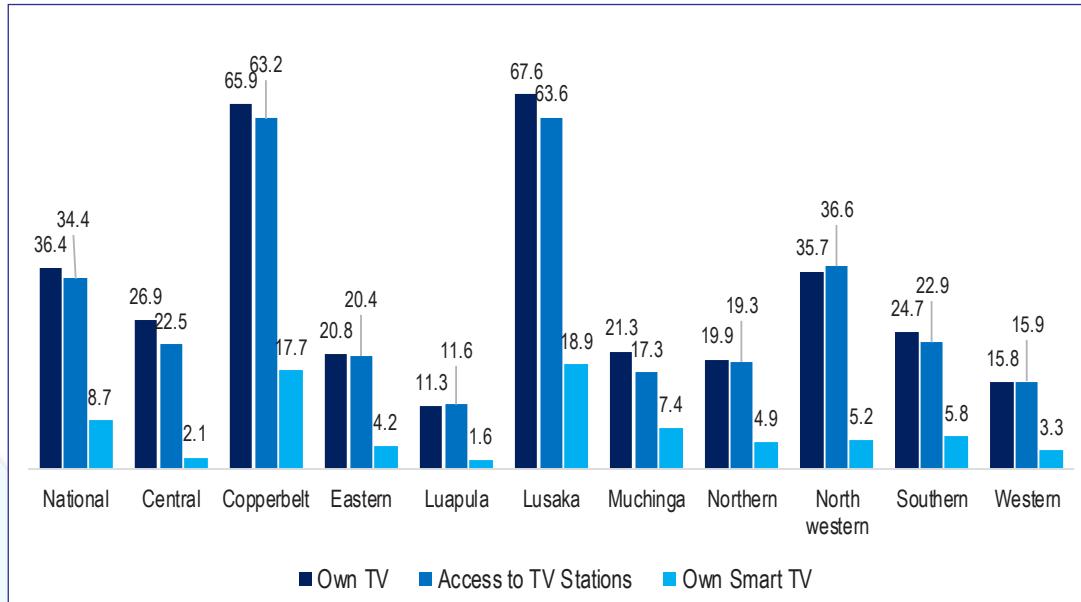
With respect to employment status of the household head, it was observed that households with a head that was employed or retired had a higher probability of owning a television set or accessing television stations. Notably, 69.2 percent of households headed by an employed individual owned a television while 67.0 percent of these households had access to television services. However, the highest proportion of households that owned a smart television were headed by individuals that were employers. The lowest proportion of households that owned a television sets were headed by individuals that were either too young or too old to work.

Figure 24: Ownership of Television Set and Access to Television Services by Employment Status: 2022



With regard to provincial distribution of television set ownership by households, the survey showed that households based in Lusaka and Copperbelt provinces had the highest proportion of households that owned a television set accounting for 67.6 percent and 65.9 percent of households respectively. Similarly, the highest proportion of households with access to television services was observed in Lusaka and Copperbelt provinces estimated at 63.6 percent and 63.2 percent respectively. Luapula province had the lowest proportion of households that owned a television set estimated at 11.3 percent while those with access to television services accounted for 11.6 percent of households in the province. Lusaka province had the largest proportion of households that owned smart televisions accounting for 18.9 percent followed by Copperbelt at 17.7 percent of households in the province.

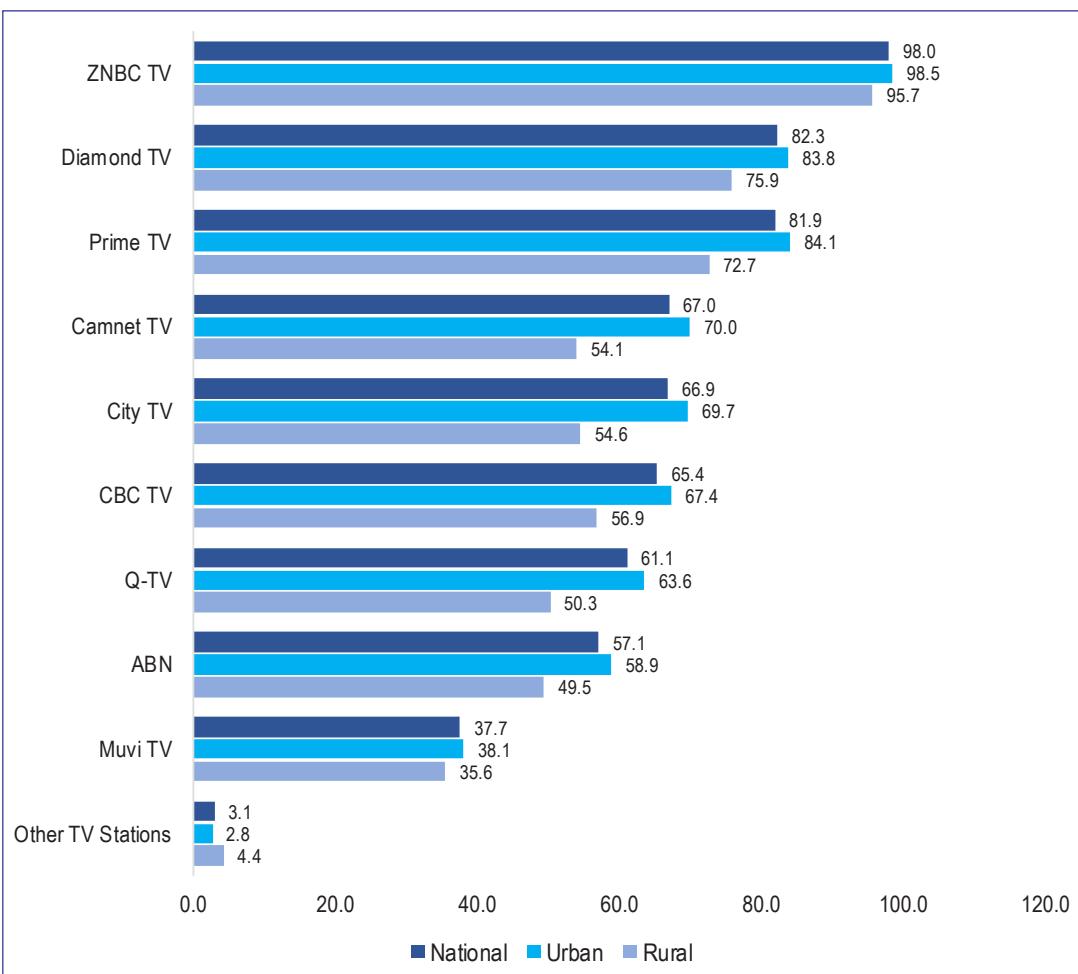
Figure 25: Ownership of Television Set and Access to Television Services by Province: 2022



4.1.1.2. Access to Local Television Stations

Most households with access to television services had access to the National Broadcasting network, Zambia National Broadcasting Corporation (ZNBC) as well as Diamond Television and Prime Television. It was estimated that 98.0 percent of households with access to television stations accessed ZNBC while 82.3 percent had access to Diamond Television and 81.9 percent had access to Prime Television. On the other hand, less than 50.0 percent of households with access to television stations accessed Muvi Television or other local television stations. Households that were based in urban areas were observed to have a relatively higher proportion of households with access to various local television stations than households in rural areas.

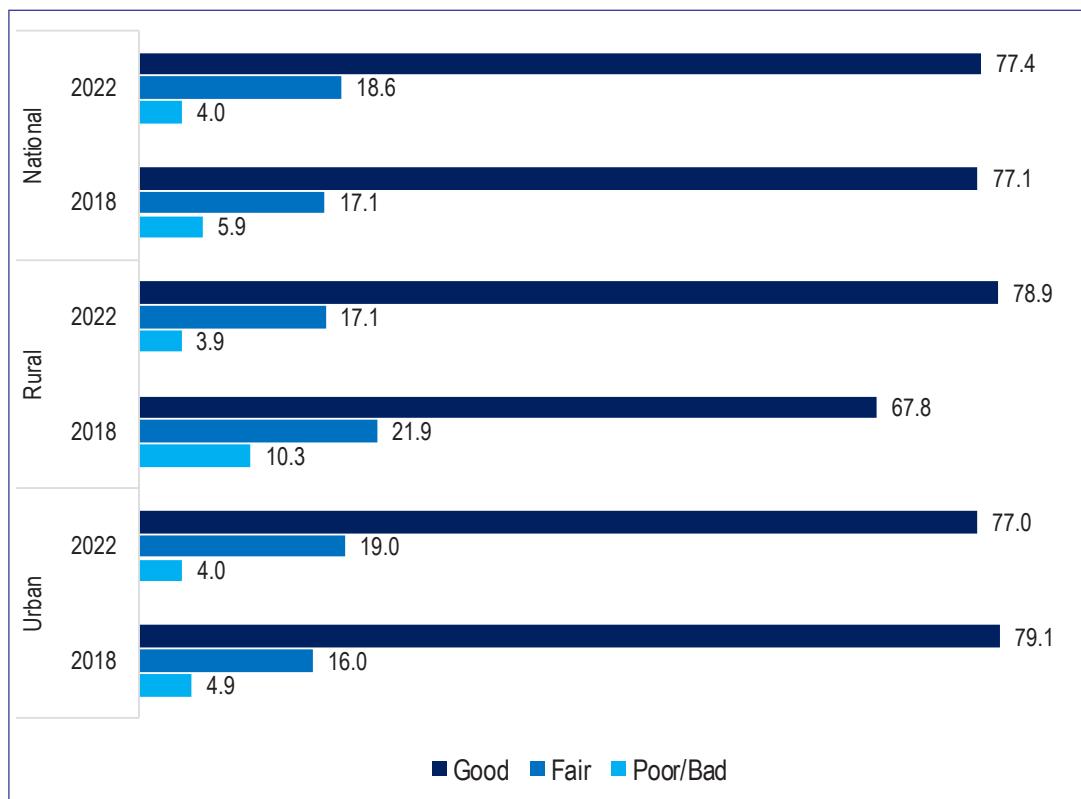
Figure 26: Access to Local Television Stations by Region: 2022



4.1.1.3. Quality of Experience - Zambia National Broadcasting Corporation

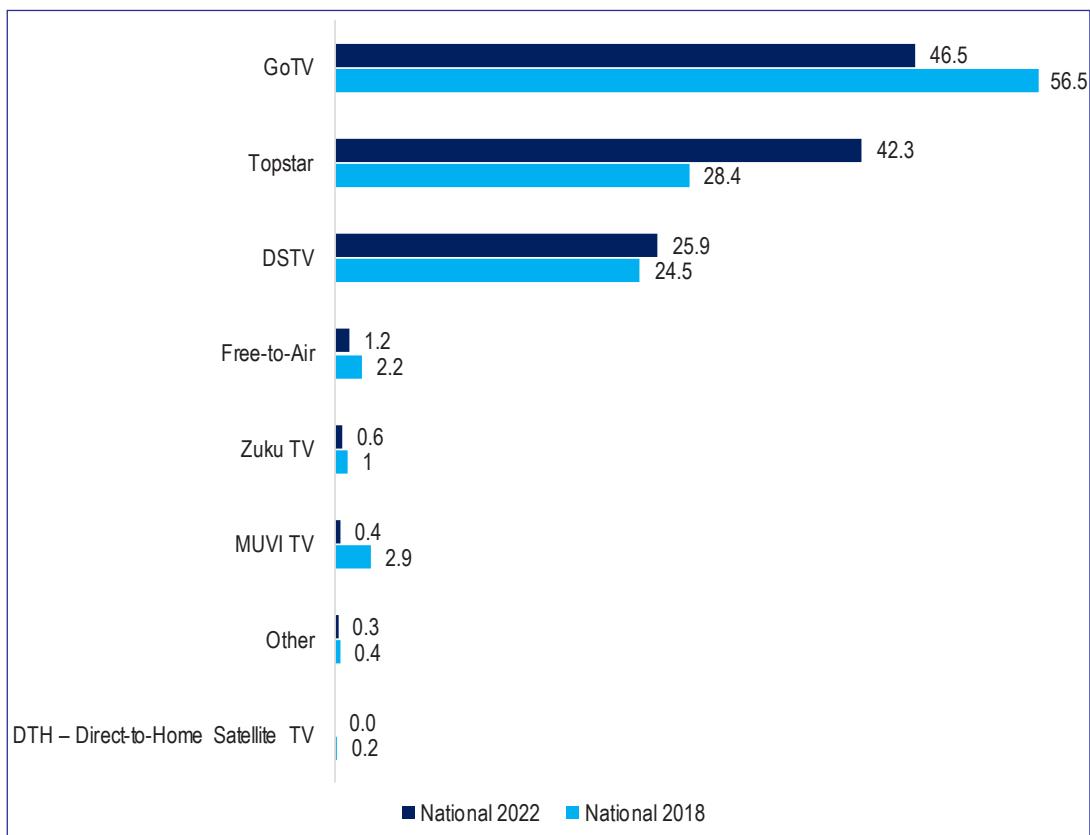
Most households rated their experience with the national broadcaster, Zambia National Broadcasting Corporation (ZNBC), as good. Specifically, 77.4 percent of households with access to ZNBC rated their experience as good, representing a slight increase from 2018 where 77.1 percent of households that rated their experience as good. Correspondingly, the proportion of households that rated their experience as poor dropped from 5.9 percent in 2018 to 4.0 percent in 2022. A significant reduction in the proportion of households that rated their experience with ZNBC as poor in rural areas was observed as the proportion decreased from 10.3 percent in 2018 to 3.9 percent in 2022 while the proportion of households that rated their experience as poor in urban areas equally reduced from 4.9 percent to 4.0 percent over the reference period.

Figure 27: Quality of Experience - Zambia National Broadcasting Network (ZNBC): 2022



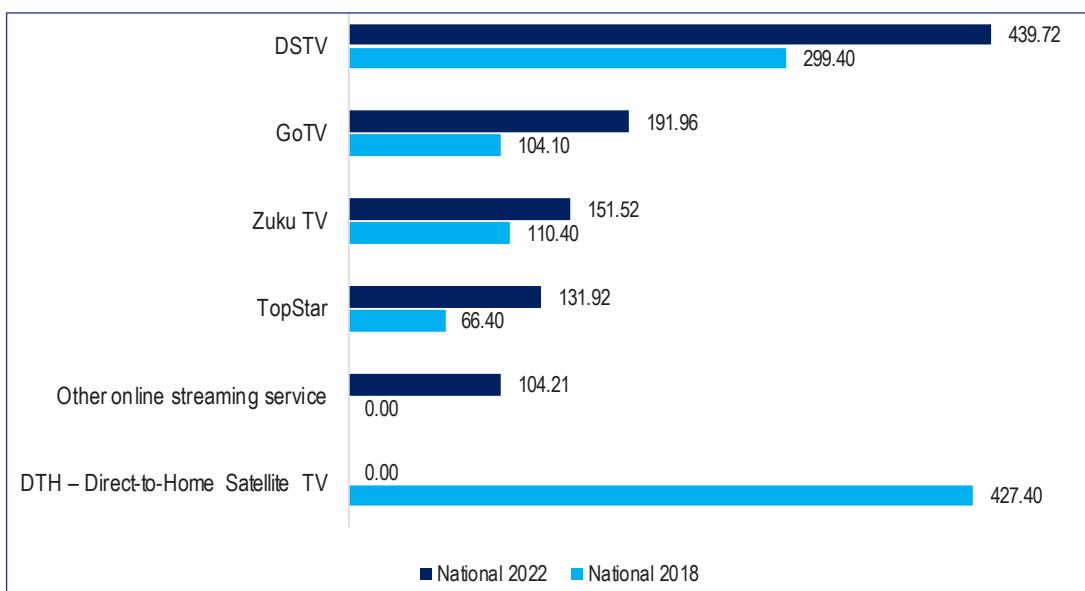
4.1.1.4. Access to Pay Television Services

The survey showed that most households with access to pay television stations were using GOTV, DSTV and Topstar. The proportion of households with access to DSTV remained relatively unchanged between 2018 and 2022 increasing marginally from 24.5 percent to 25.9 percent while the proportion of households with access to Topstar increased significantly from 28.4 percent to 42.3 percent. On the other hand, the proportion of households with access to GOTV decreased from 56.5 percent in 2018 to 46.5 percent in 2022 while those with access to Muvi TV decreased from 2.9 percent to 0.4 percent.

Figure 28: Access to Pay Television Stations by Type 'ZMW: 2018 - 2022

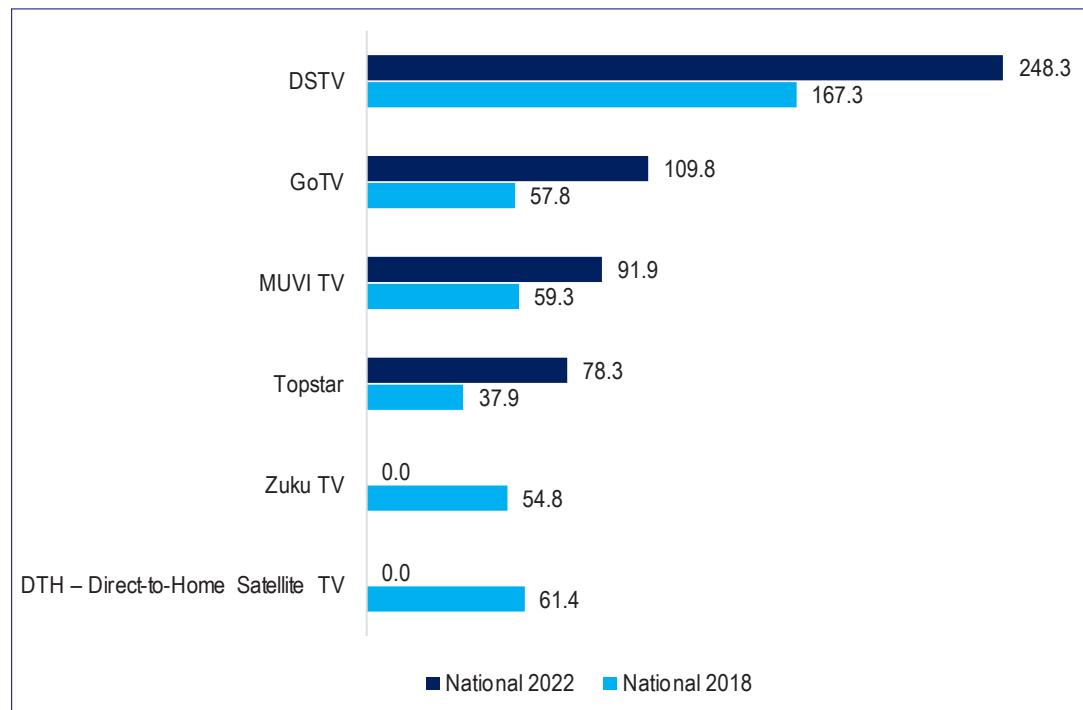
4.1.1.5. Affordability of Television Services

The average household expenditure on most pay television stations increased in 2022 relative to the average expenditure estimated in 2018. Notably, the average expenditure on DSTV amongst households using this service increased to ZMW 439.7 from ZMW 299.4 in 2018 while average expenditure on GOTV increased from ZMW 104.1 to ZMW 191.96 in 2022. The average household expenditure on online streaming services was estimated at ZMW 104.21 in 2022. Average household expenditure on DSTV remained the highest average expenditure on television stations in the country.

Figure 29: Average Monthly Expenditure (ZMW) on Pay Television Services; 2018-2022

The households that were of the view that DSTV was not affordable were willing to pay ZMW 248.3 monthly, representing a slight increase of ZMW 81 from the amount similar households were willing to pay for the service in 2018. Similarly, households that were of the view that GoTV was not affordable were willing to pay ZMW 109.8 monthly to access the service, representing a ZMW 52 increase over the amount the households were willing to pay in 2018.

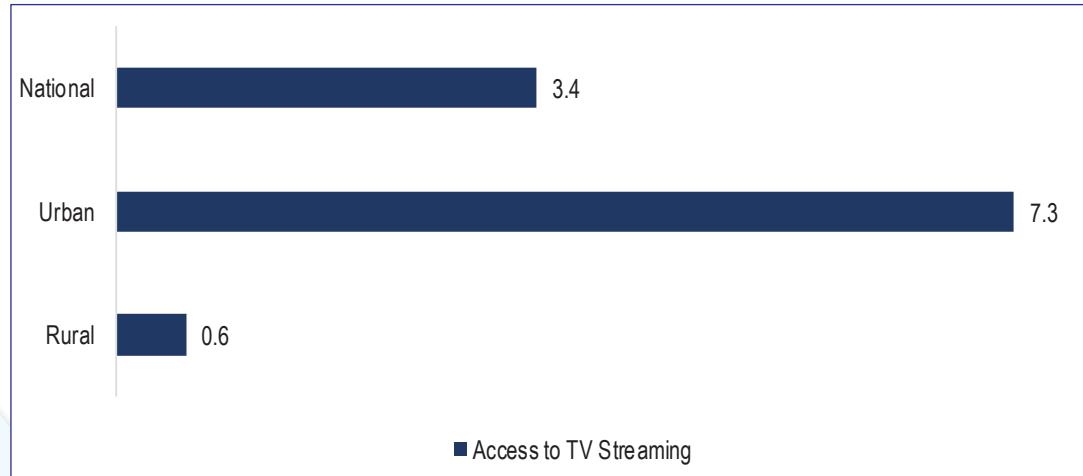
Figure 30: Average Expenditure (ZMW) Households are willing to make on Pay Television Services: 2018 - 2022



4.1.1.6. Usage of Streaming Services

The survey results established that 3.4 percent of households in the country had access to television streaming services. Access was significantly higher among urban households where 7.3 percent of these households had access to streaming services while 0.6 percent of rural households had access to the services.

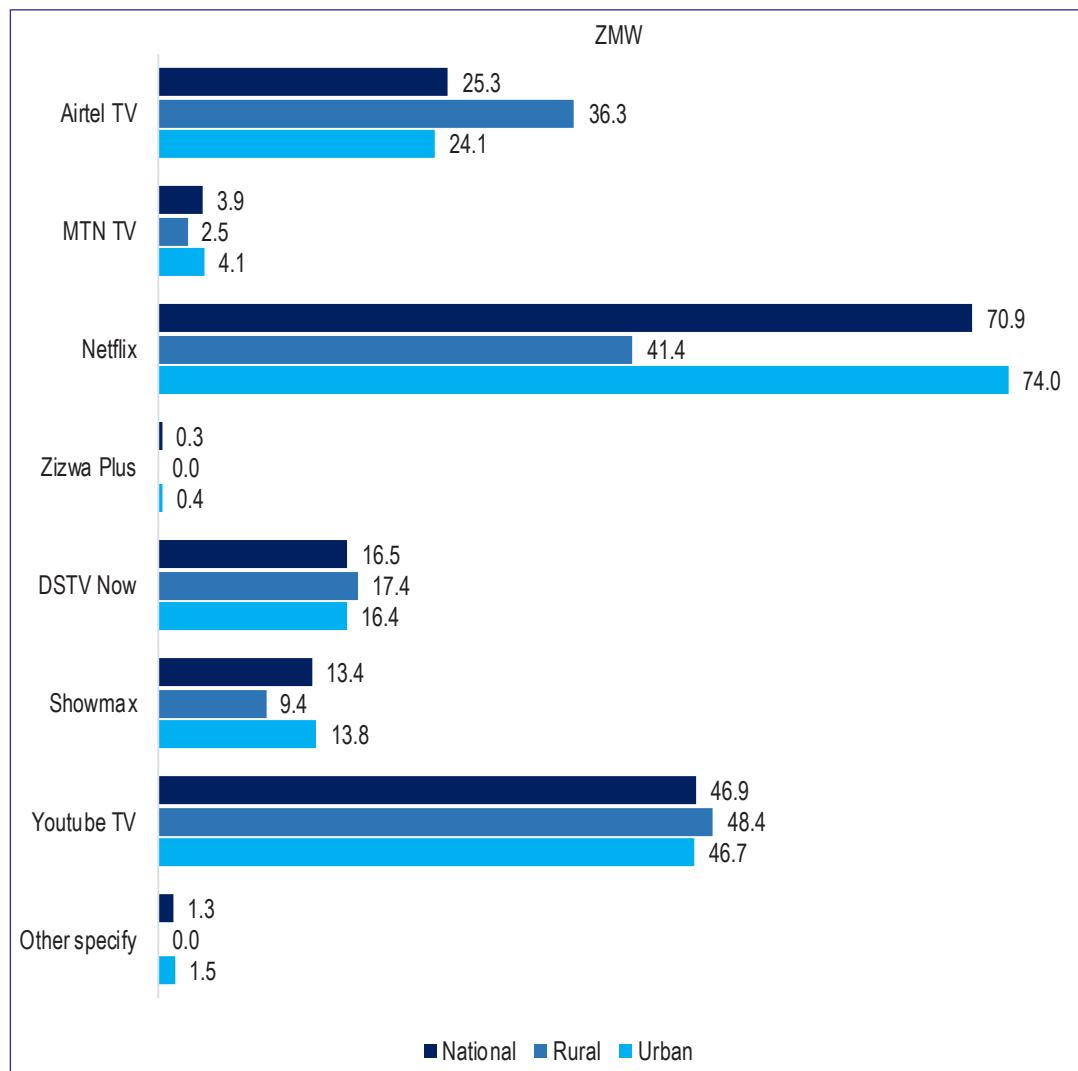
Figure 31: Household Access to Streaming Services; 2022



It was further observed that Netflix was the most commonly accessed streaming service by households accounting for 70.9 percent of households with access to

streaming services. YouTube TV, Airtel TV and DSTV Now were also accessed by a significant proportion of households estimated at 46.9 percent, 25.3 percent and 16.5 percent respectively. The proportion of urban based households that accessed Netflix and Showmax was relatively higher than that of rural households while rural households were more likely to access Airtel TV, YouTube TV and DSTV Now.

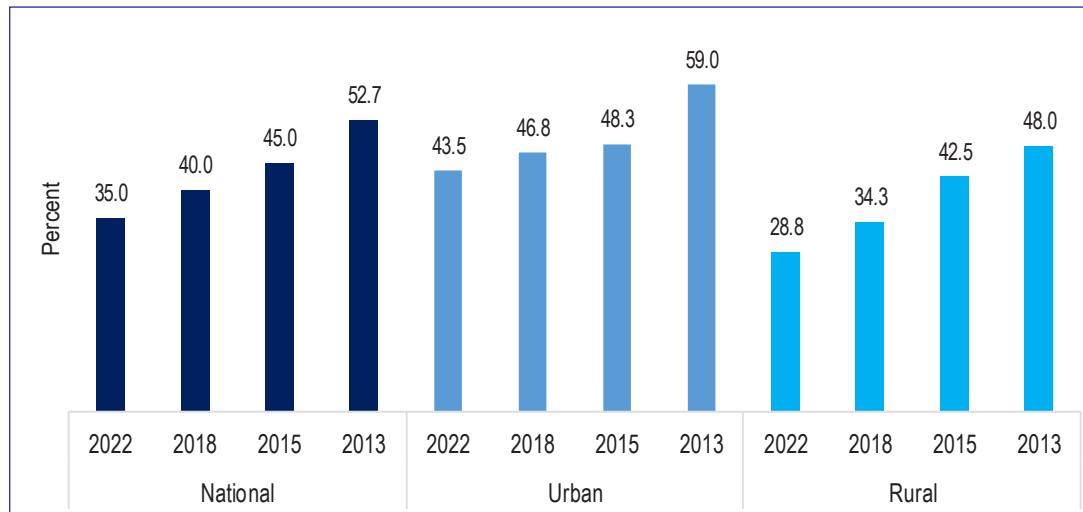
Figure 32: Regional Household Access to Streaming Service by Type; 2022



4.1.2. Ownership and Usage of Radio Service

4.1.2.1. Ownership of Working Radios

The ownership of working radios by households continued to decline in 2022 consistent with the findings in earlier surveys. The proportion of households across the country that owned a working radio reduced from 40.0 percent in 2018 to 35.0 percent in 2022. This pattern of ownership of working radios was consistent within regions as the ownership of working radios reduced in both rural and urban areas. However, there were some notable differences in the ownership of radios across regions. 43.5 percent of the households located in urban areas reported to own a working radio while only 28.8 percent of households located in rural areas indicated that they owned a working radio.

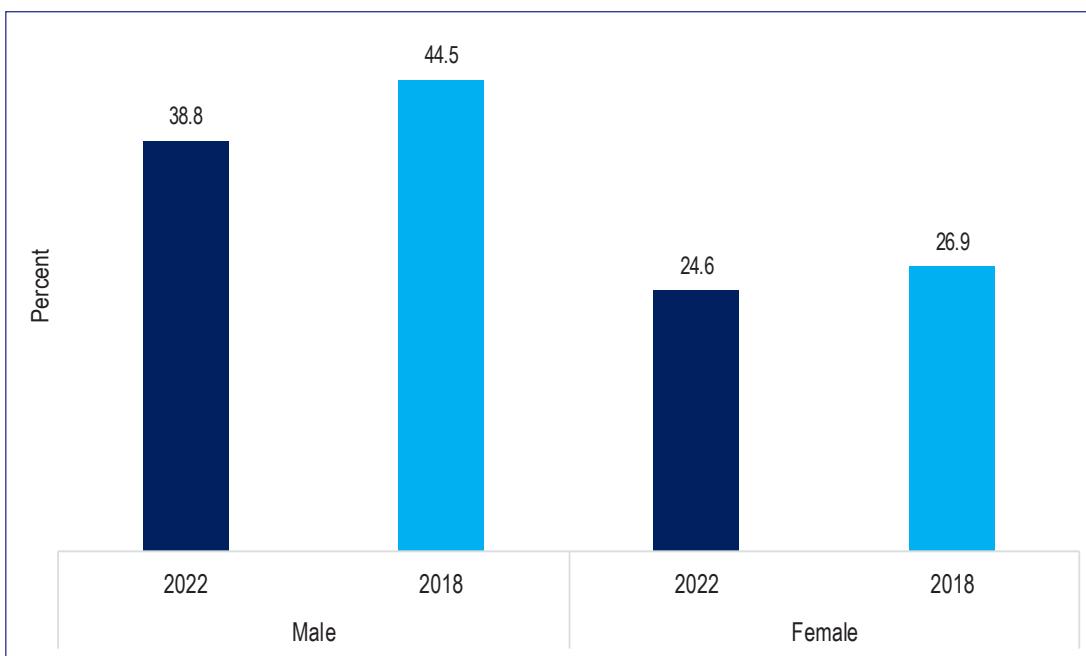
Figure 33: Ownership of Radios by Households

The largest proportion of households that reported that they owned a working radio were based in Copperbelt province, Lusaka province, and Southern province accounting for 19.7 percent, 18.6 percent and 11.9 percent respectively. The provinces with the least proportion of households that owned a working radio were Western, Muchinga and North Western accounting for 4.0 percent, 5.0 percent and 5.3 percent respectively.

Figure 34: Distribution of Ownership of Working Radio across Provinces

The proportion of households headed by males that indicated that they owned a working radio continued to be relatively higher than the proportion of households headed by females that indicated that they owned a working radio. Specifically, 38.8 percent of the male headed households indicated that they owned a working radio while only 24.6 percent of the households headed by females indicated that they owned a working radio in 2022.

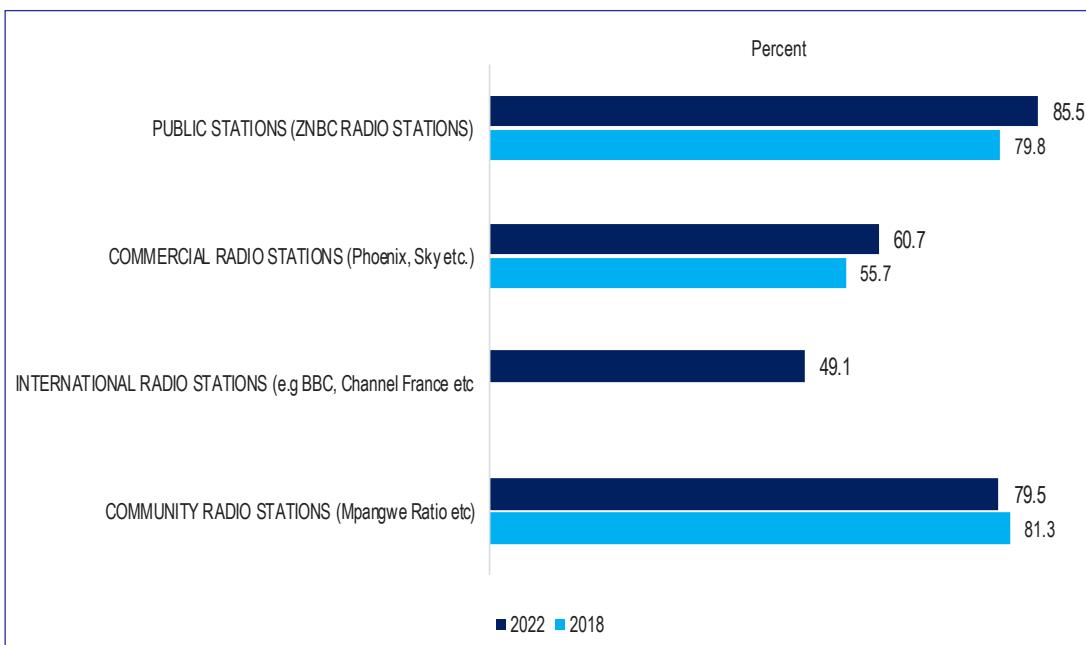
Figure 35: Ownership of Working Radios by Households across Sex of Household Head; 2018-2022



4.1.2.2. Access to Radio Stations

The majority of households in the country that owned working radios indicated that they accessed public radio stations compared to the proportion of households that accessed community radio stations and commercial radio stations. This represented a relatively marginal change in access to radio stations especially between public radio stations and community radio stations between 2018 and 2022. Specifically, 85.5 percent of the households that owned working radios reported that they accessed public radio stations while only 79.5 percent and 60.7 percent accessed community radio stations and commercial radio stations respectively. Further, only 49.1 percent of households that owned working radios reported that they accessed international radio stations.

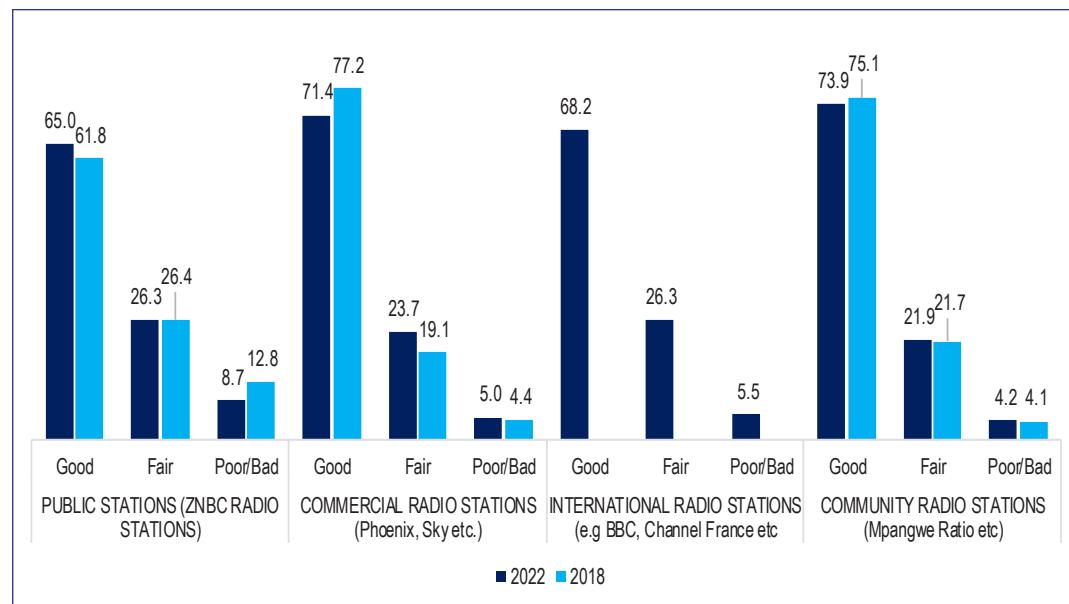
Figure 36: Access to Radio Stations by Households across Type of Radio Station; 2018-2022



4.1.2.3. Perceptions on Quality of Radio Reception by Type of Stations

The quality of radio reception continued to be reported to be relatively better on community radio stations and commercial radio stations than the public radio stations. Specifically, 73.9 percent of the households that indicated that they owned a working radio and had access to community radio stations reported that the quality of radio reception was good while 71.4 percent of the households that indicated that they owned a working radio and had access to commercial radio stations rated the quality of the reception as good. On the other hand, only 65.0 percent of the households that indicated that they owned a working radio and reported that they had access to public radio stations indicated that the quality of the radio reception was good. The quality of reception for international radio stations which was assessed for the first time in 2022 was rated as good among households that indicated that they owned a working radio by 68.2 percent. Despite the quality of radio reception for public radio stations being rated relatively lower, the public radio stations recorded the largest improvement in the reported quality of radio reception. Both commercial radio stations and community radio stations recorded a reduction in the proportion of households that rated the quality of their reception as good.

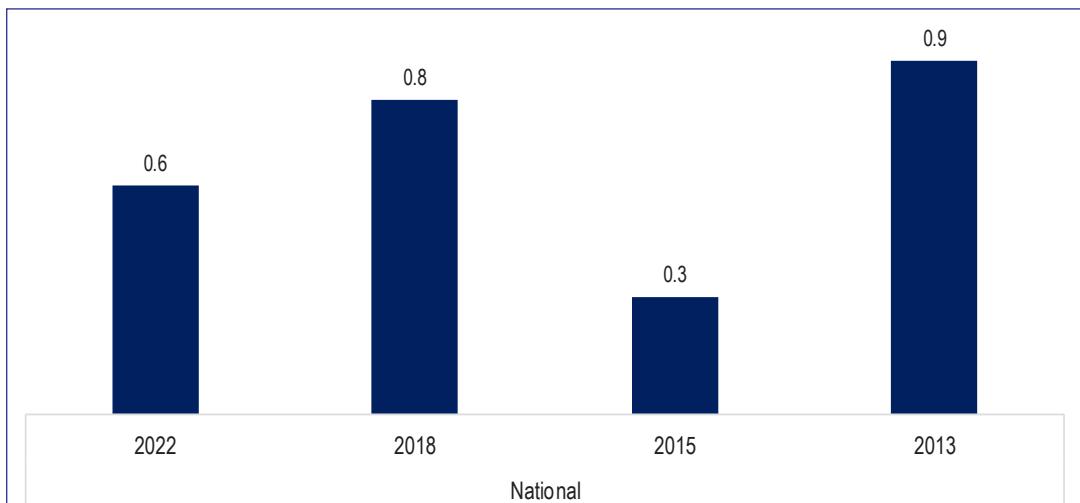
Figure 37: Perceptions on Quality of Radio Reception by Households



4.1.3. Access and Usage of Fixed Telephone Line Services

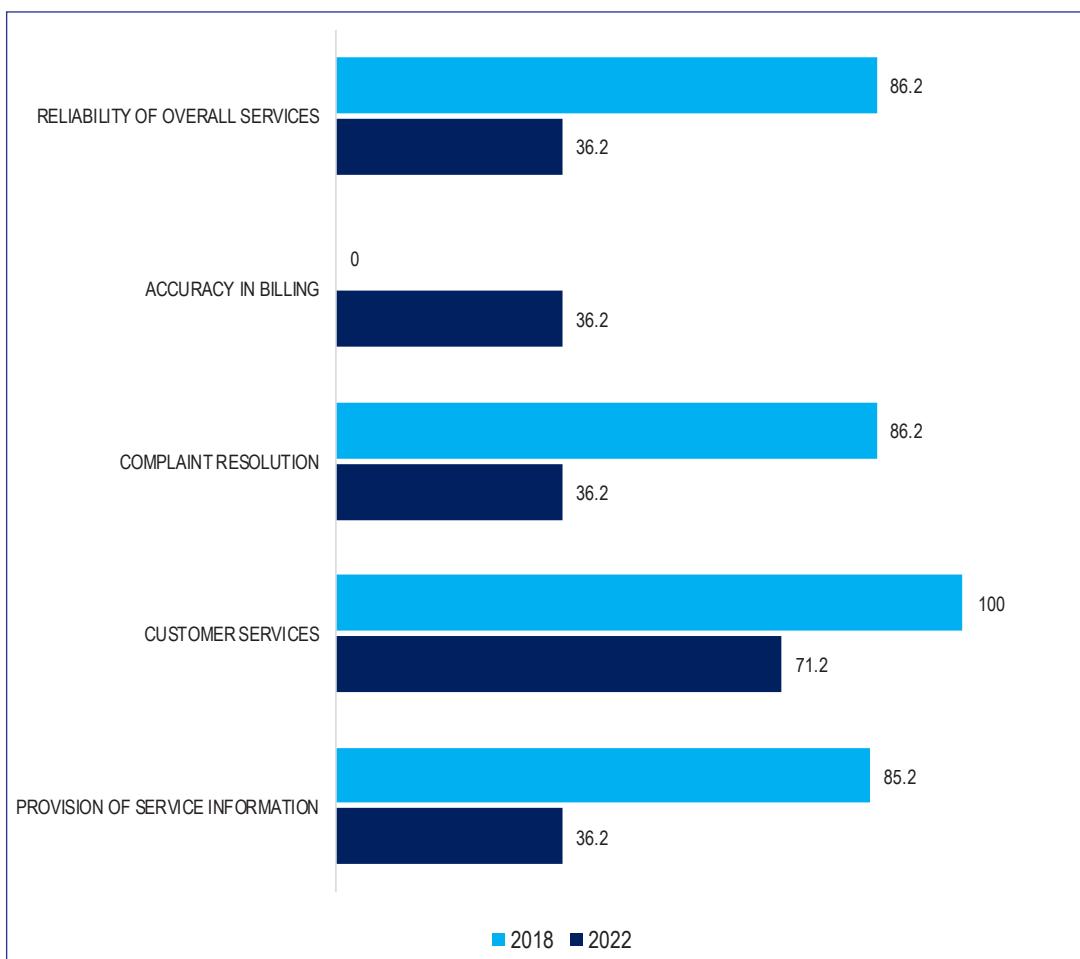
4.1.3.1. Ownership of Fixed Telephone Lines

The proportion of households that reported that they owned a fixed telephone line remained negligible accounting for less than 1.0 percent of the total number of households across the country. There was a sustained decline in the proportion of households that had access to fixed telephone lines reducing from 0.8 percent to 0.6 percent between 2018 and 2022. This trend reflects the continued reduction in adoption of fixed lines which are increasingly being substituted with mobile cellular telephones.

Figure 38: Ownership of Fixed Telephone Lines by Households

4.1.3.2. Quality of Experience for Fixed Telephone Lines

There was an observed significant reduction in the proportion of households that indicated that they owned fixed telephone lines that are functional and were satisfied with the various attributes of service delivery that were investigated. For instance, the proportion of households that were satisfied with overall reliability of services, as well as complaint resolution all reduced from 86.2 percent to 36.2 percent. These trends reflect a deterioration in consumer experience while using fixed line services.

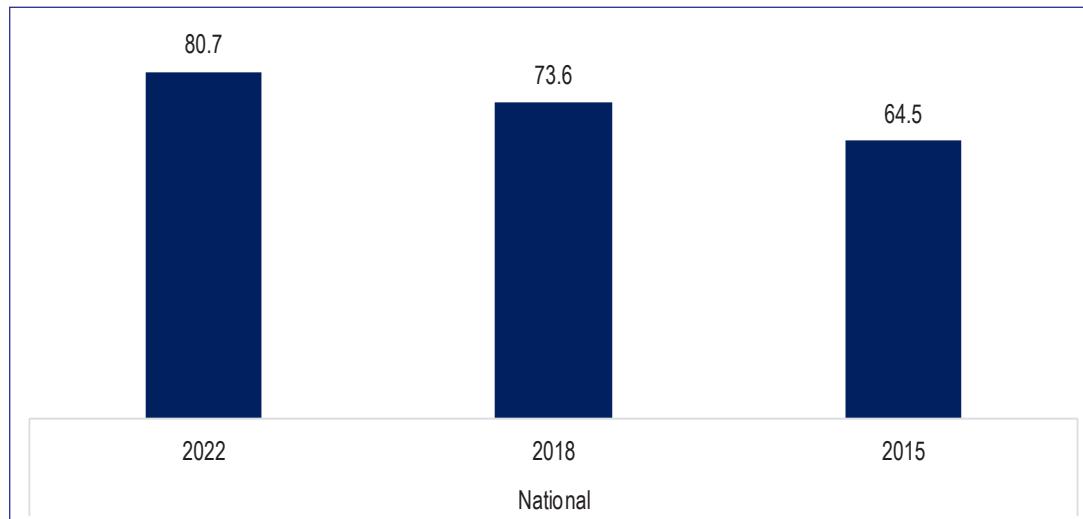
Figure 39: Satisfaction with Fixed Line Services by Households

4.1.4. Access and Usage of Mobile Cellular Services by Households

4.1.4.1. Ownership of Mobile Cellular Telephone by Households

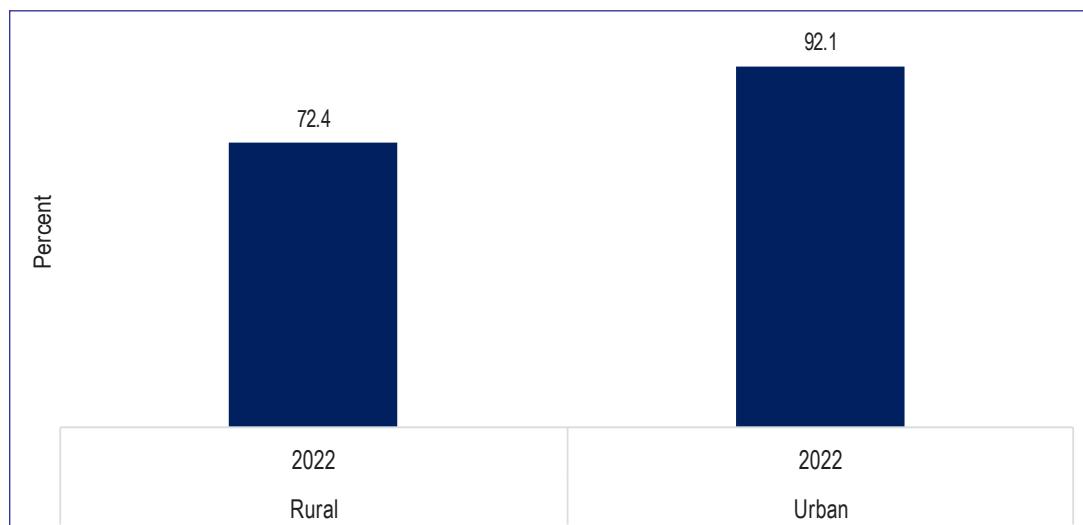
Ownership of mobile cellular telephones by households in the country increased from 73.6 percent reported in 2018 to 80.7 percent in 2022.

Figure 40: Ownership of Mobile Phones by Households; 2015 -2022



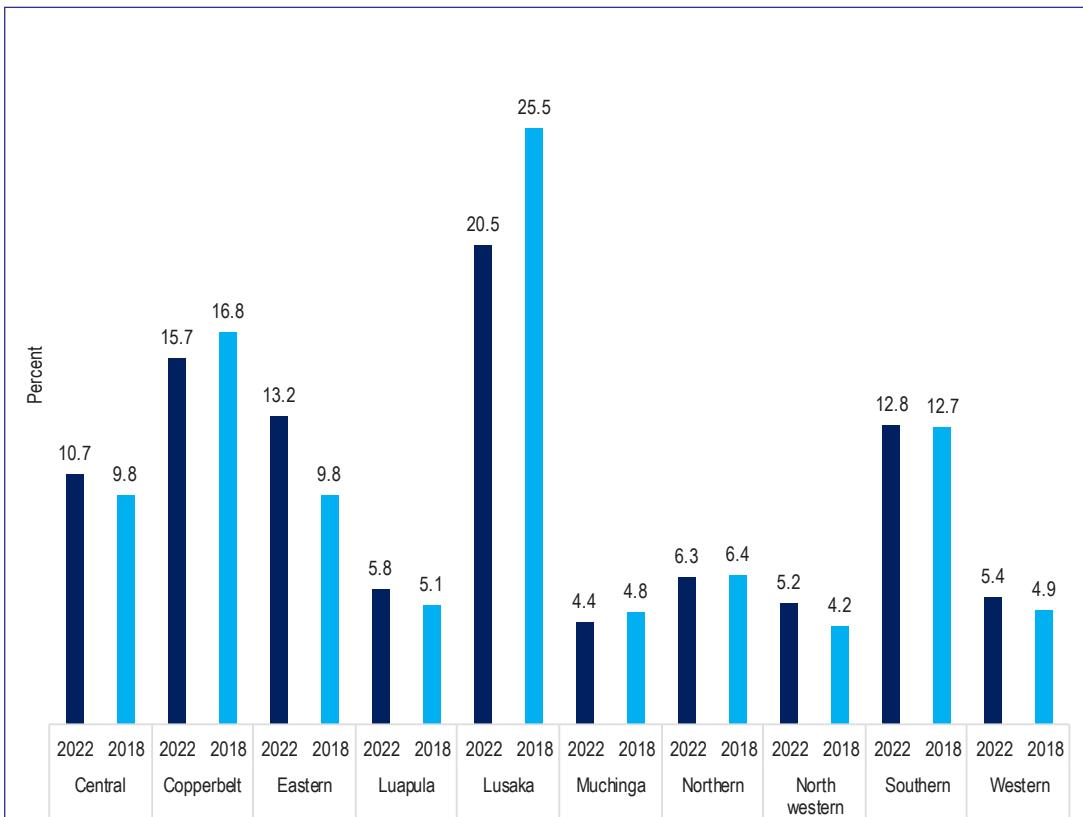
The disparity in ownership of mobile cellular telephones by households across regions persisted with a relatively higher proportion of households that are located in urban areas indicating that they owned a mobile telephone compared to households situated in rural areas. Specifically, 92.1 percent of the households that are located in urban areas indicated that they owned a mobile cellular telephone while only 72.4 percent of the households based in rural areas indicated that they owned a mobile cellular telephone.

Figure 41: Household Ownership of Mobile Phones by Region; 2022



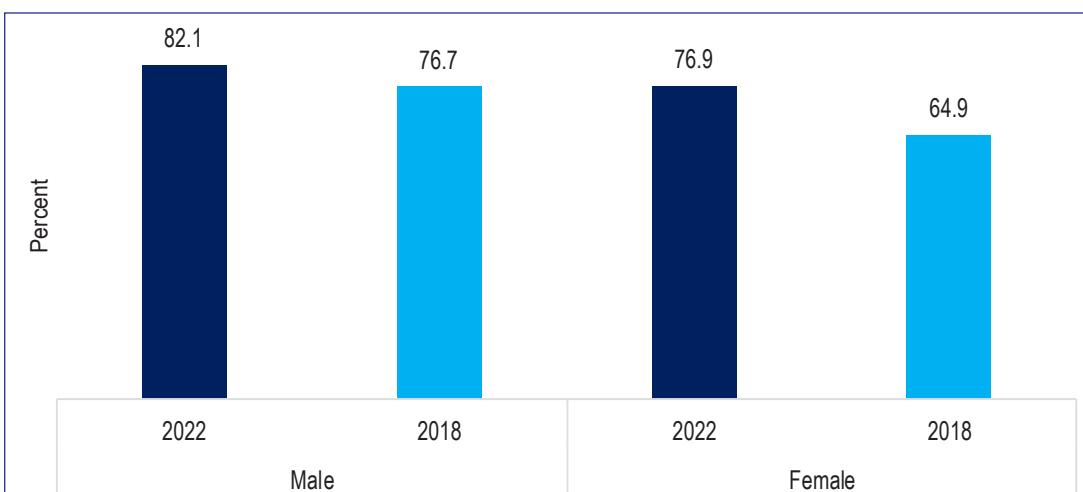
The majority of the households that reported to own a mobile cellular telephone were located in Lusaka province, Copperbelt province and Eastern province accounting for 20.5 percent, 15.7 percent and 13.2 percent respectively. Western, North Western and Muchinga province continued to account for the smallest proportion of households that indicated that they owned a mobile phone constituting 5.4 percent, 5.2 percent and 4.4 percent respectively.

Figure 42: Distribution of Households that reported that they owned a Mobile Phone by Province; 2018-2022



The proportion of male headed households that indicated that they owned a mobile cellular telephone was relatively higher than the proportion of female headed households that reported that they owned a mobile cellular telephone. Specifically, 82.1 percent of the male headed households indicated that they owned a mobile cellular telephone while only 76.9 percent of the female headed households indicated that they owned a mobile cellular telephone. However, there was a very significant growth rate in the proportion of female headed households that owned mobile phones between 2018 and 2022 relative to the growth among male headed households. Notably, the proportion of female headed households that owned mobile cellular telephones increased by 12.0 percentage points while the proportion of male headed households that owned mobile telephones increased by 5.4 percentage points.

Figure 43: Proportion of Households that Own a Mobile Cellular Telephone by Sex of Head of Household; 2018-2022

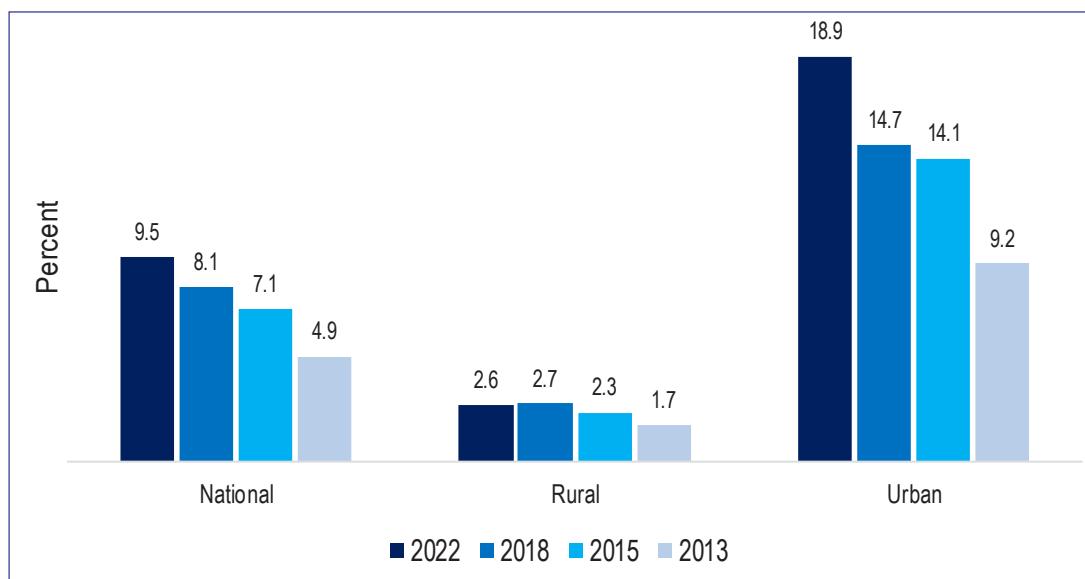


4.1.5. Access and Usage of Computers by Households

4.1.5.1. Ownership of Computers by Households

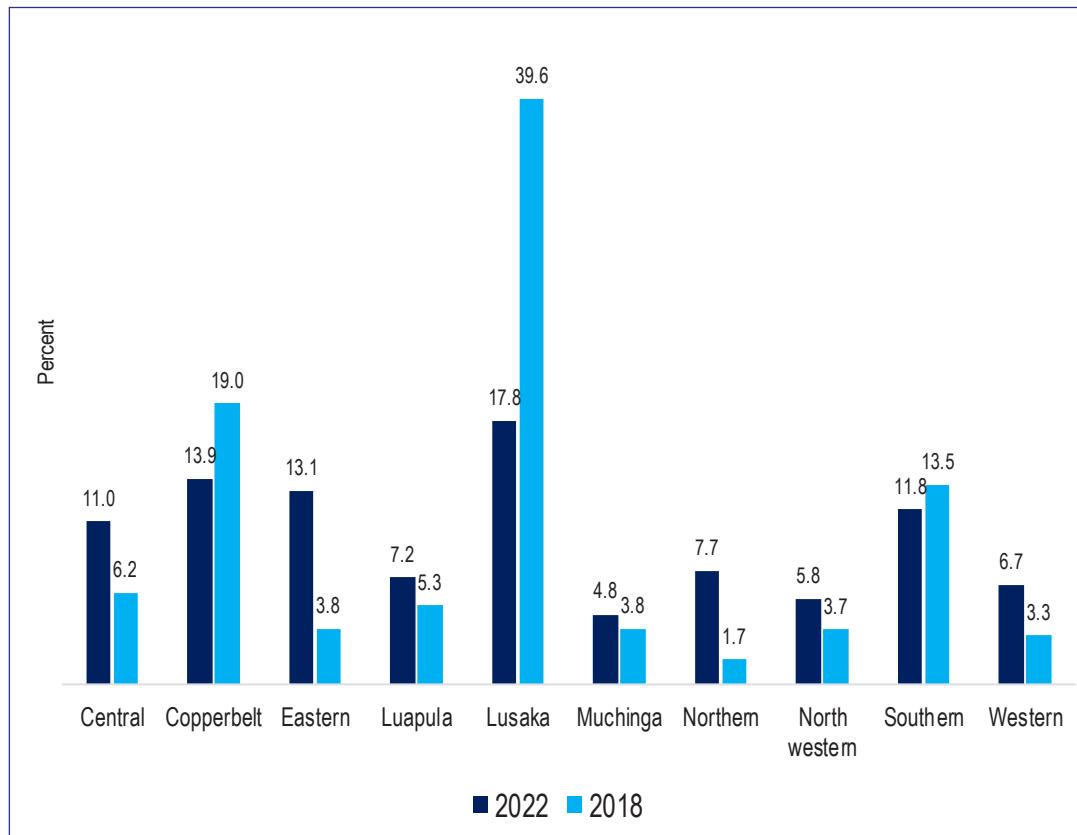
The proportion of households across the country that indicated that they owned a computer increased from 8.1 percent to 9.5 percent between 2018 and 2022 reflecting a continued improvement in ownership of computers by households in Zambia. However, the imbalance between households that are situated in rural areas that owned a computer relative to households that were based in urban areas persisted. Specifically, 18.9 percent of the households in urban areas owned a computer while only 2.6 percent of households based in rural areas owned a computer. There was a marginal decline in the proportion of rural households that owned a computer between 2018 and 2022.

Figure 44: Ownership of Computers by Households across Regions; 2013-2022



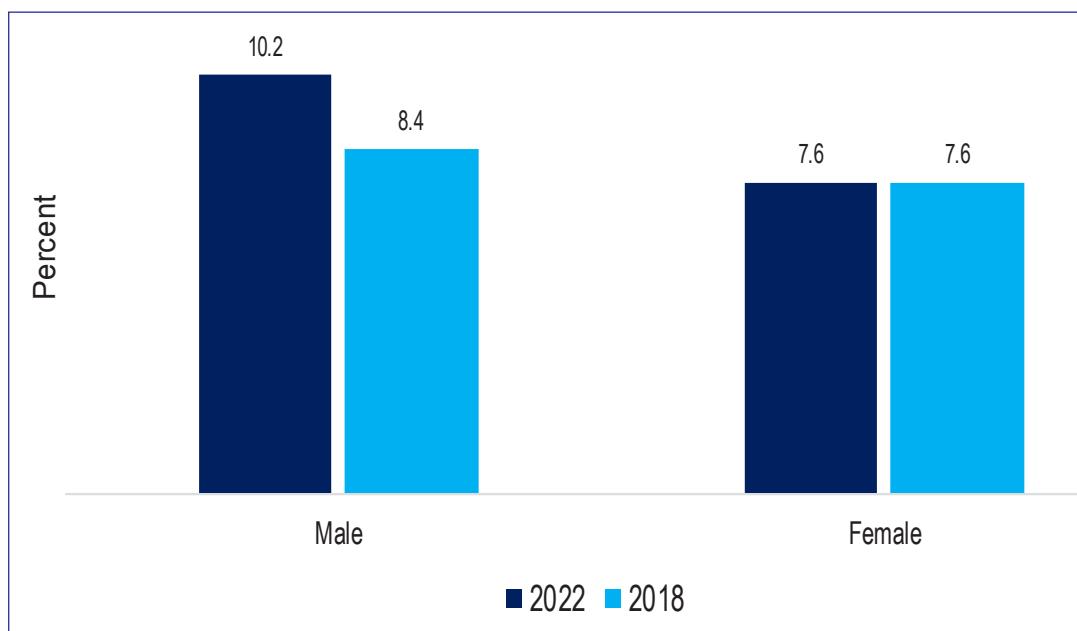
The majority of the households that indicated that they owned a computer were located in Lusaka Province, Copperbelt Province and Eastern Province constituting 17.8 percent, 13.9 percent, and 13.1 percent of the total number of households that indicated that they owned a computer respectively. Muchinga Province, North-Western Province and Western Province accounted for the smallest proportion of households that indicated that they owned a computer constituting 4.8 percent, 5.8 percent and 6.7 percent of the total number of households that indicated that they owned a computer respectively.

Figure 45: Distribution of Households that Own a Computer by Province; 2018-2022



The proportion of male headed households that indicated that they owned a computer was relatively higher than the proportion of female headed households across the country that reported that they owned a computer. Specifically, 10.2 percent of the male headed households across the country indicated that they owned a computer while 7.6 percent of the female headed households reported that they owned a computer.

Figure 46: Figure 41: Ownership of Computers by Households across Sex of Head of Household; 2018-2022

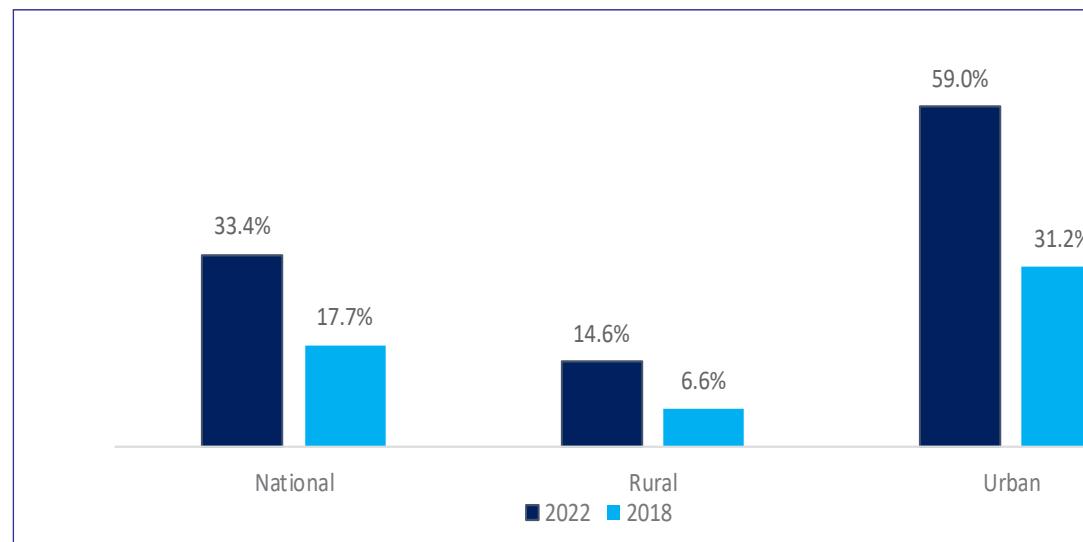


4.1.6. Access and Usage of Internet Services by Households

4.1.6.1. Household Access to Internet Services

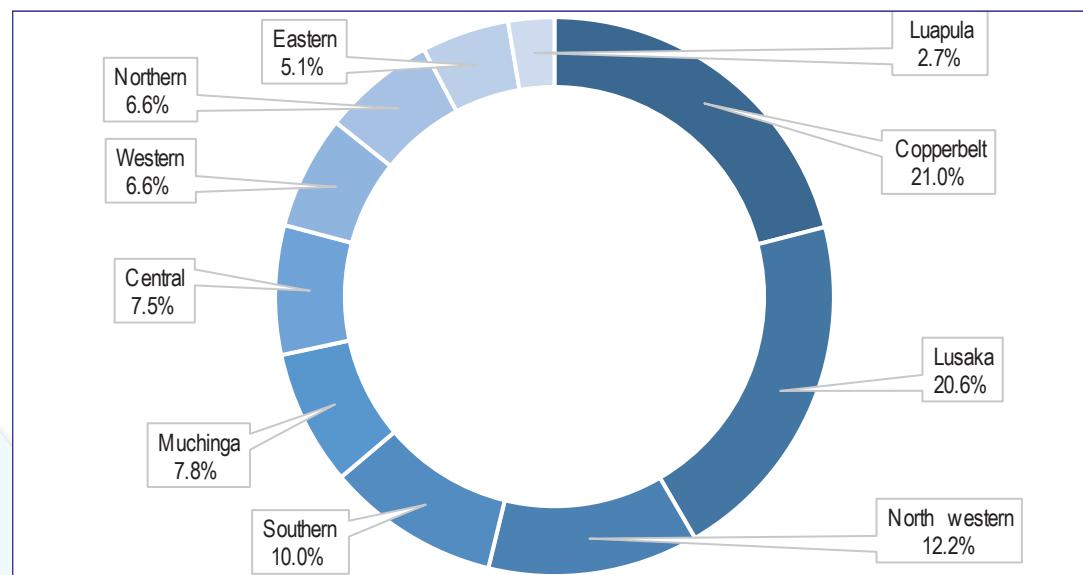
Household access to the internet increased to 33.4 percent of households in the country in 2022 from 17.7 percent of households recorded in 2018. The majority of households with access to internet services remained in urban areas as opposed to rural areas. The proportion of urban households with access to the internet increased from 31.2 percent in 2018 to 59.0 percent in 2022 while the proportion of households in rural areas with access to the internet increased from 6.6 percent to 14.6 percent over the reference period.

Figure 47: Access to Internet Services by Households Across Region: 2018 - 2022



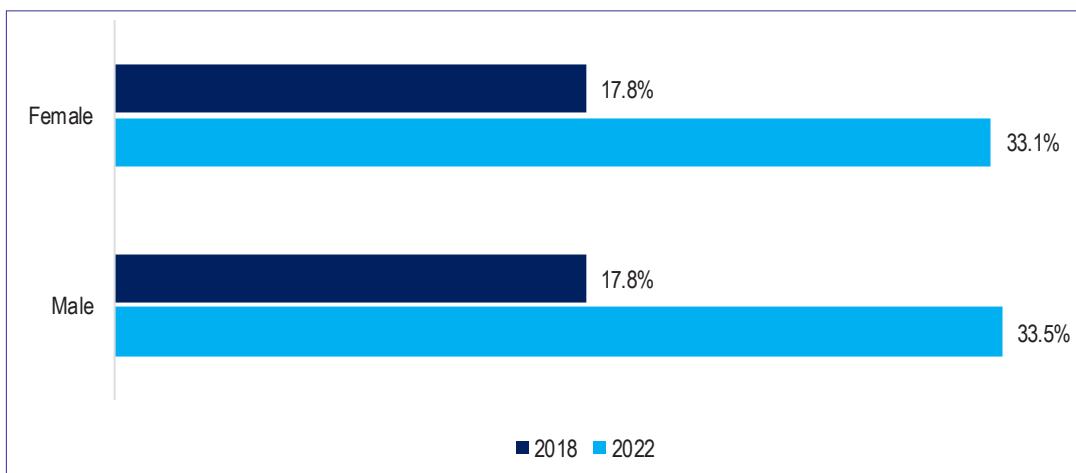
A provincial distribution of households with access to the internet showed that Copperbelt and Lusaka provinces had the highest proportion of households with access to the internet accounting for 21.0 percent and 20.6 percent of households respectively. On the other hand, Eastern and Luapula provinces had the least proportion of households with access to the internet accounting for 5.1 percent and 2.7 percent of households respectively.

Figure 48: Access to Internet Services by Province: 2022



The disparity between households headed by males and that of females with regard to access to internet services in 2022 remained marginal as observed in 2018. A slightly larger proportion of households headed by males had access to the internet accounting for 33.5 percent of all male headed households while the proportion of female headed households with access to the internet was estimated at 33.1 percent.

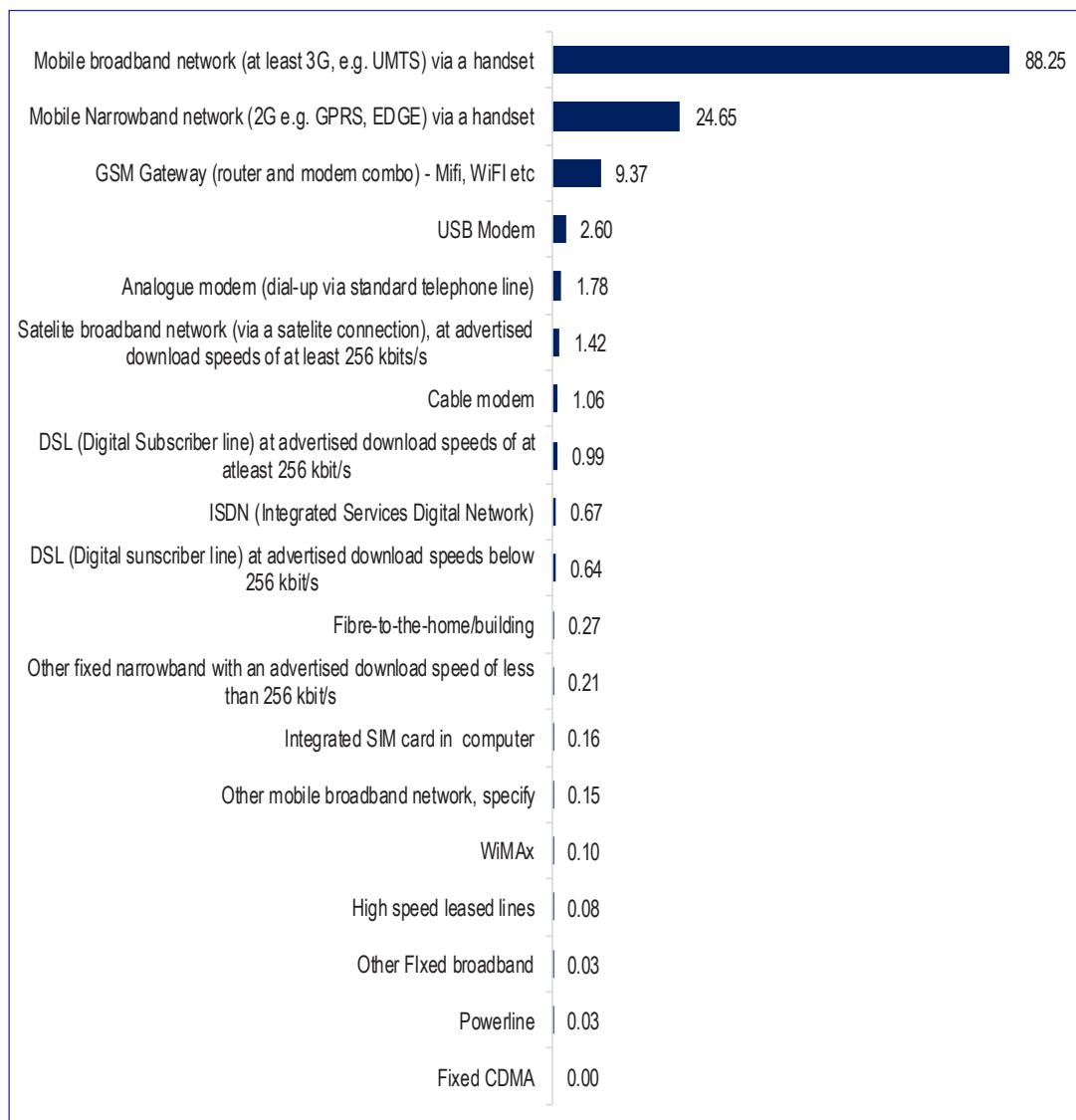
Figure 49: Access to Internet Services by Sex of Household Head; 2018 - 2022



4.1.6.2. Types of Internet Accessed by Households

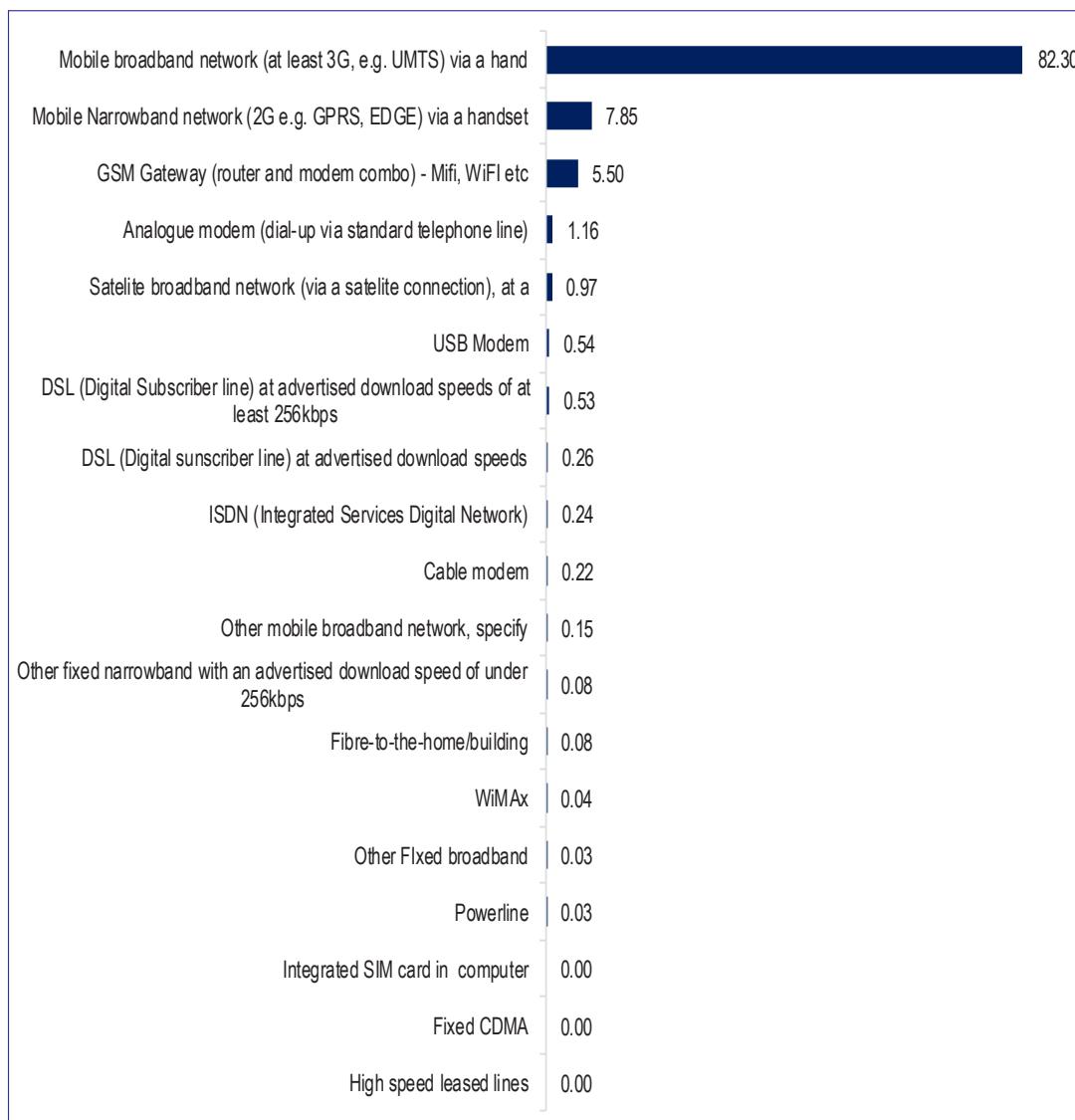
The majority of the households with access to internet services, accounting for 88.25 percent of the total number of households with access to internet services, accessed mobile broadband services using a handset. A sizeable number of households also accessed mobile narrowband services and mobile broadband services using a MiFi modem accounting for 24.7 percent of the total number of households with access to internet services and 9.4 percent of the total number of households with access to internet services respectively. Access to Fibre-to-the-home (FTTH) technologies by households was very minimal accounting for less than 1.0 percent of the total number of households with access to internet services.

Figure 50: Access to Internet Services by Households across Type of Technologies; 2022



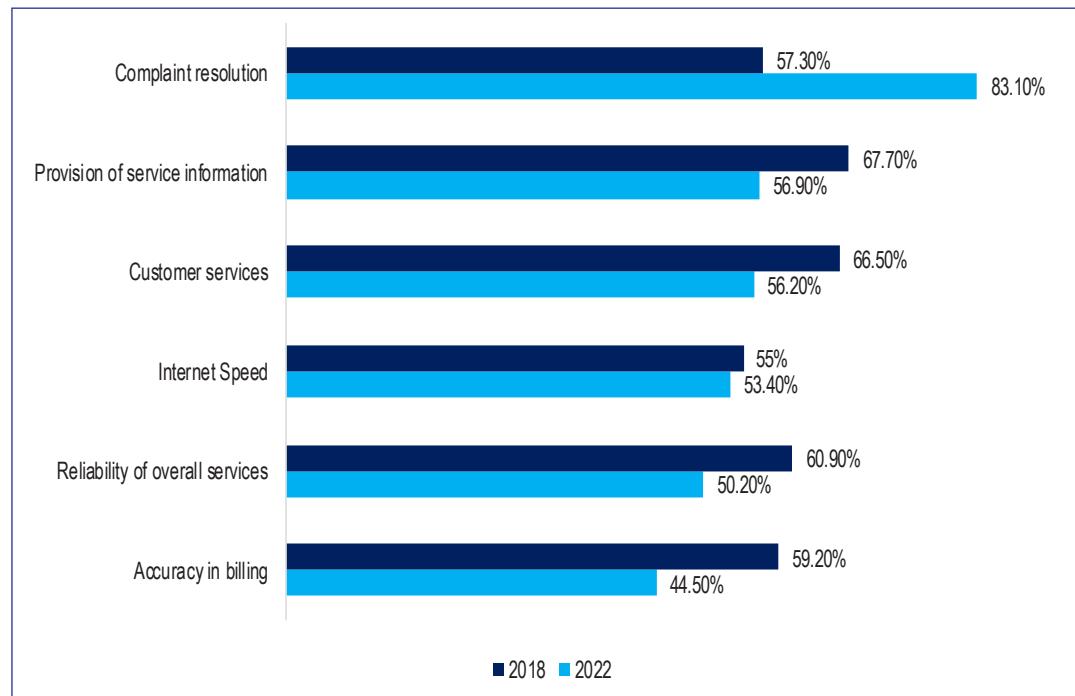
4.1.6.3. Main Type of Internet Accessed by Households

The main type of technology adopted by households as their main source of internet services was reported to be mobile broadband network via handset accounting for 82.3 percent of the total number of households that access internet services. FTTH accounted for the less than 1.0 percent of households that indicated that the technologies that were their main source of internet services.

Figure 51: Main Type of Source for Internet Services by Households

4.1.6.4. Quality of Experience Using Internet Services

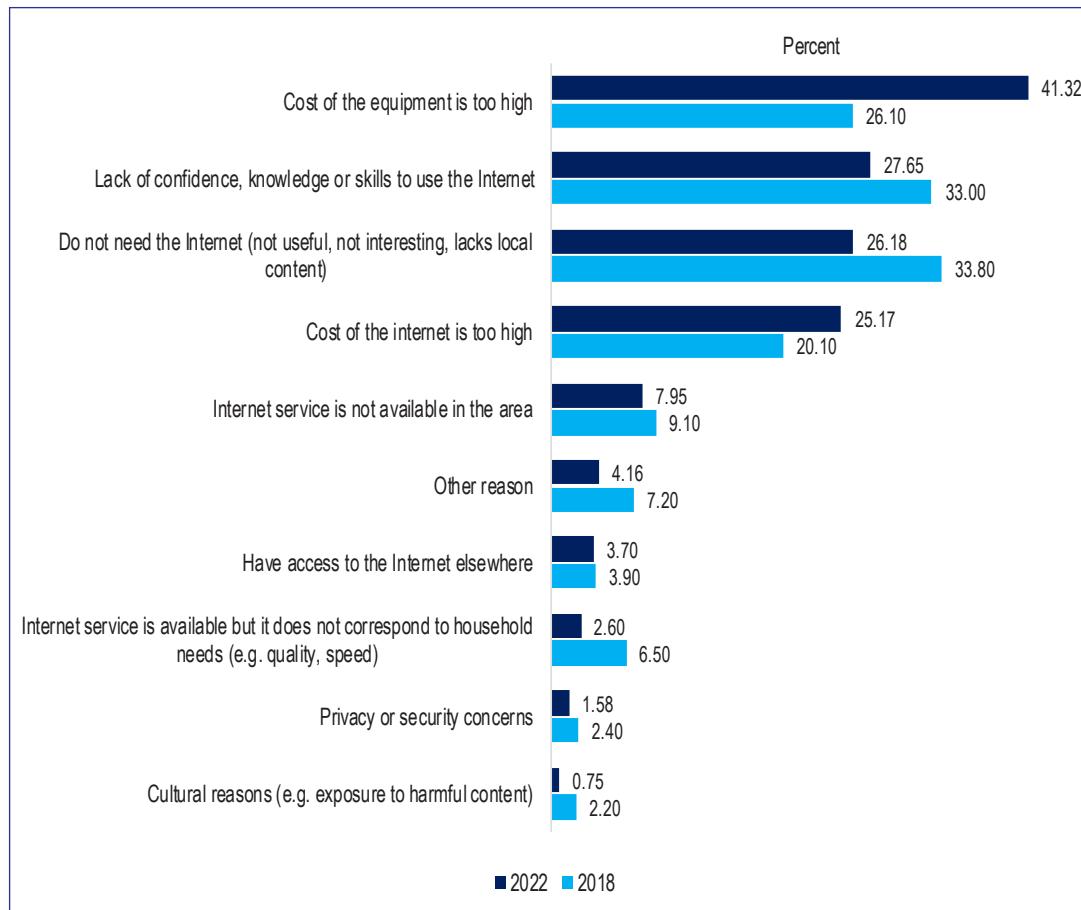
Most households reported that they were satisfied with various aspects of quality of experience with regards to their internet services with the exception of accuracy in billing. Specifically, it was observed that more than 50.0 percent of households using internet services were satisfied with complaint resolution, provision of service information, customer services, internet speed and reliability of overall services. Significant improvement was observed with regards to complaint resolution where 83.1 percent of households were satisfied with this aspect relative to 57.3 percent of households that were satisfied in 2018. On the other hand, the proportion of households that were satisfied with the other aspects of the quality of internet service such as provision of service information and accuracy in billing decreased in 2022 from the proportion of households observed in 2018.

Figure 52: Perceptions on Quality of Internet Services 2018 - 2022

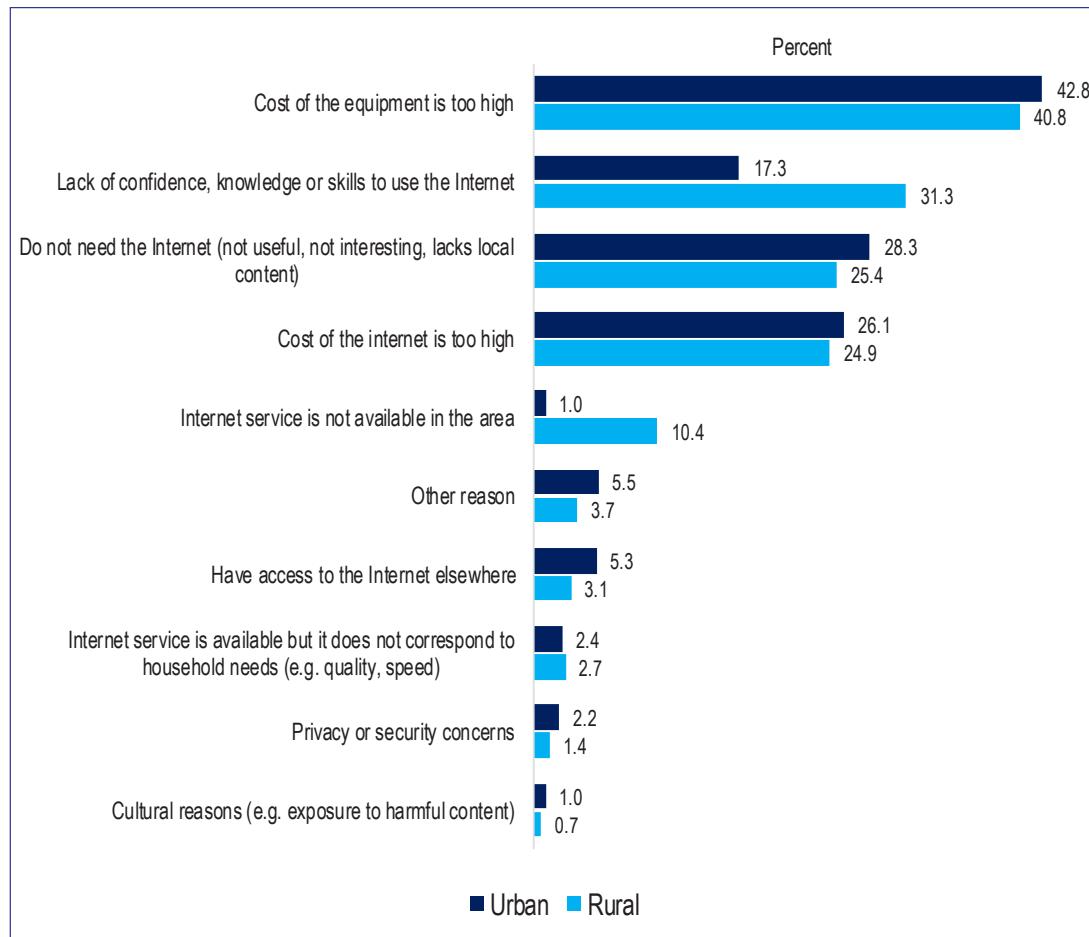
4.1.6.5. Barriers to Internet Access by Households

The majority of households that did not have access to the internet at home attributed this to the perceived high cost of equipment used to access the internet. Aside from equipment costs, households attributed the absence of internet access at home to lack of confidence, knowledge and skills to use the internet, lack of usefulness of the internet and the high cost of internet services accounting for 28.0 percent, 26.0 percent and 25.0 percent of these households respectively. A much smaller proportion of households without access to the internet at home attributed it to privacy or security concerns and cultural reasons accounting for 2.0 percent and 1.0 percent of households without internet access.

The proportion of households that identified the cost of equipment and the cost of internet as a barrier to internet access in 2022 increased relative to the proportion of households in 2018 from 26.1 percent to 41.3 percent and 20.1 percent to 25.2 percent respectively. On the other hand, the proportion of households that attributed the lack of internet access at home to lack of confidence, knowledge and skills to use the internet, lack of usefulness of the internet and unavailability of internet in the area decreased in 2022 from the proportions observed in 2018.

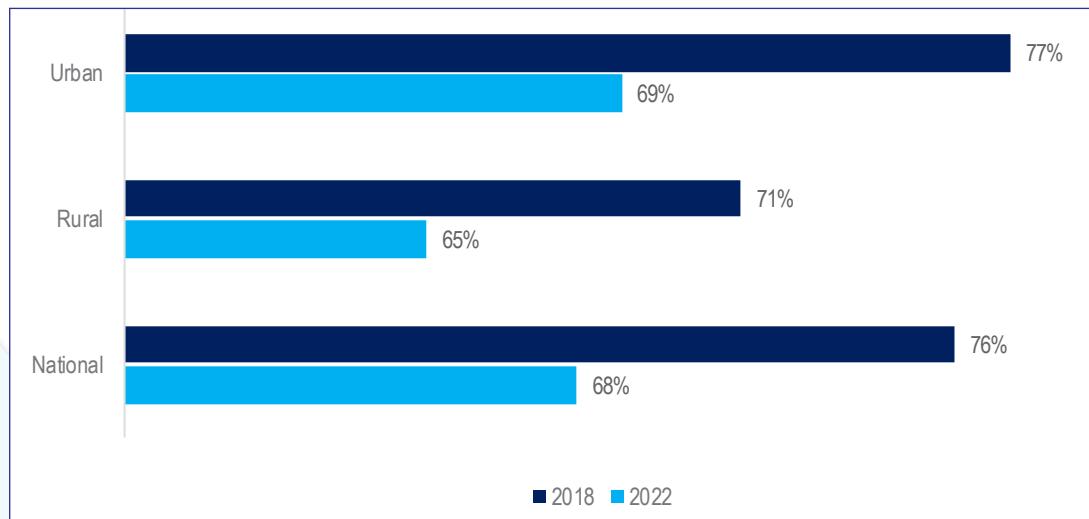
Figure 53: Barriers to Internet Access by Households; 2018 - 2022

The survey further established that a larger proportion of households in rural areas identified lack of confidence, knowledge and skills to use the internet and unavailability of internet services in the areas as barriers to accessing internet at home than those in urban areas. However, the main barrier to household internet access was identified as high cost of equipment for both rural and urban households.

Figure 54: Barriers to Internet Access by Region; 2022

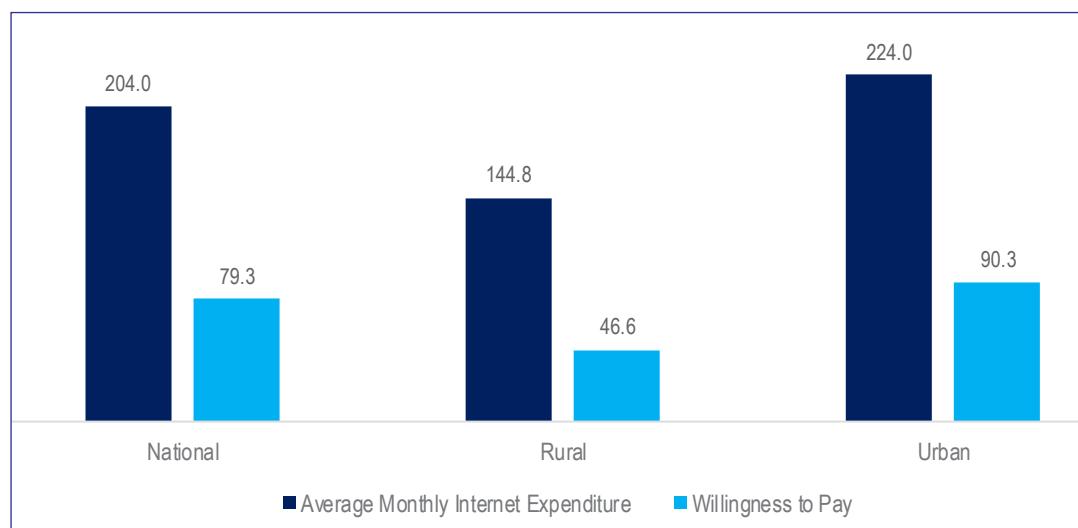
4.1.6.6. Affordability of Internet Services

The proportion of households with access to the internet that perceived internet services as affordable reduced in 2022 to 68.0 percent of households from 76.0 percent of these households observed in 2018. Households in urban areas with access to the internet retained a high proportion of households that perceived internet services as affordable accounting for 69.0 percent of households in 2022. The proportion of households in rural areas with access to the internet that perceived these services as affordable in 2022 was estimated at 65.0 percent.

Figure 55: Affordability of Internet Services; 2018 - 2022

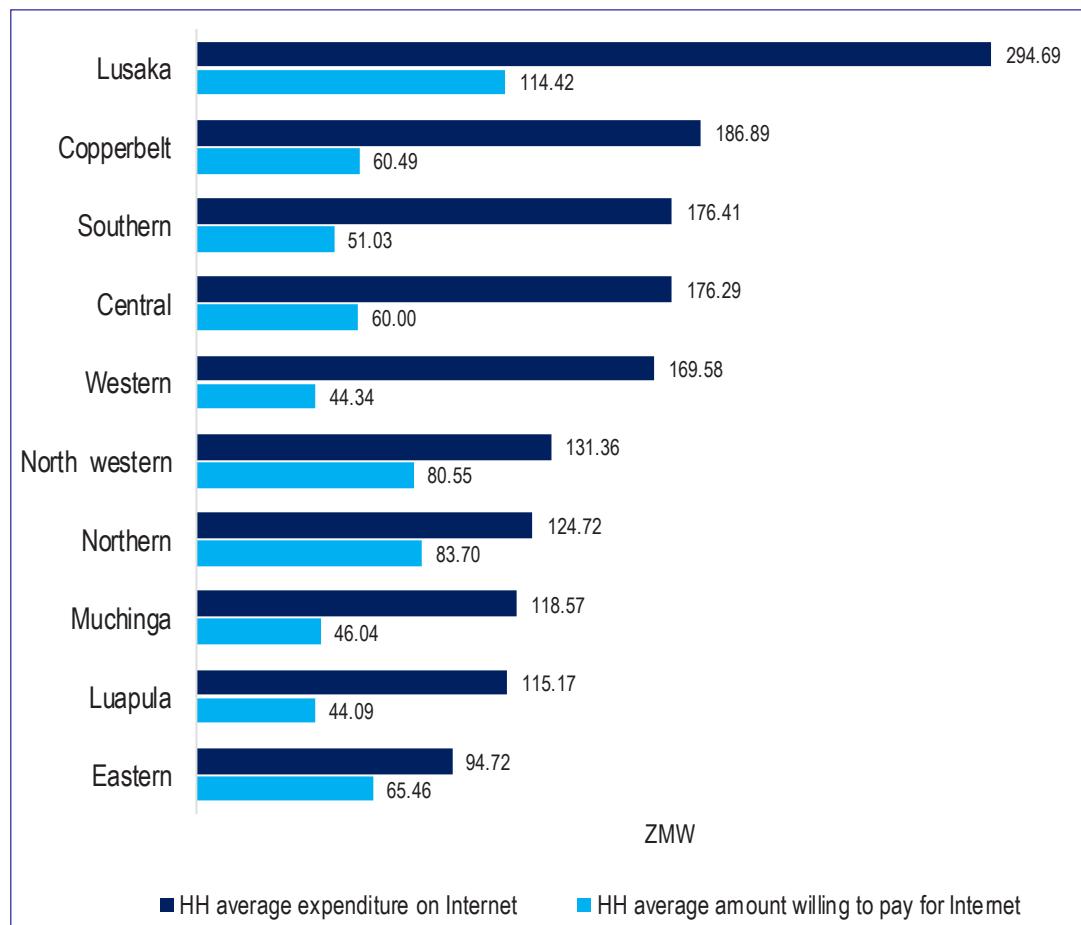
It was further established that the average monthly internet expenditure for households was ZMW 204. This average expenditure was higher amongst households in urban areas than those in rural areas by an average of ZMW 79.0. Of the households that were of the view that internet services were not affordable, it was estimated that they were willing to pay an average of ZMW 79.3 monthly to access the internet. Households in rural areas were willing to pay a lower amount averaging ZMW 46.6 each month to access the internet while households in urban areas were willing to pay ZMW 90.3 each month.

Figure 56: Average Monthly Internet Expenditure and Willing Expenditure (ZMW): 2022



The average monthly expenditure on internet was highest in Lusaka Province estimated at ZMW 294.69 whilst the province with the lowest monthly expenditure was observed to be ZMW 94.7. With regards to the average amount households are willing to pay, Lusaka had the highest average amount estimated at ZMW 114.4 whilst households in Luapula Province had the lowest average amount and they were willing to pay ZMW 44.09. Further, households in Eastern Province had the smallest disparity between the average monthly expenditure and the average willing expenditure on internet services.

Figure 57: Average Monthly Internet Expenditure and Willing Expenditure by Province; 2022

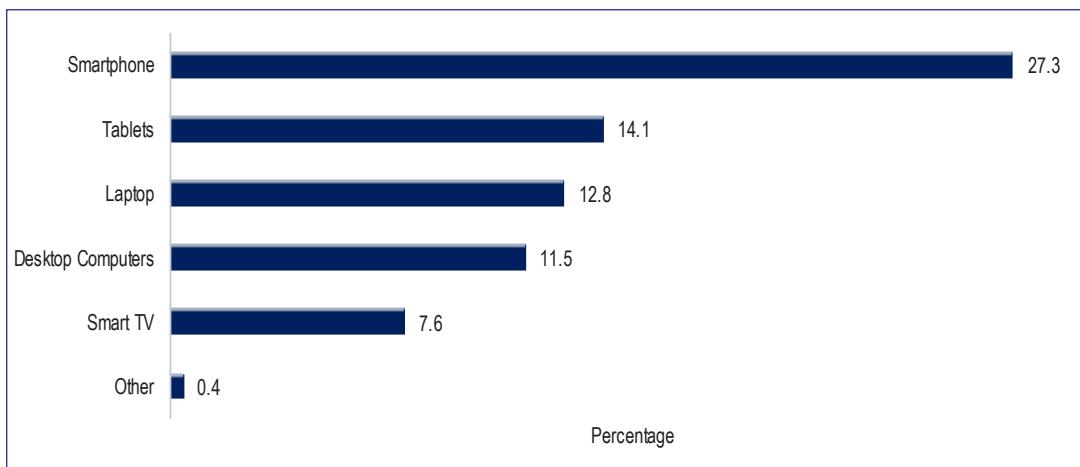


4.2. Access and Usage of ICTs by Individuals

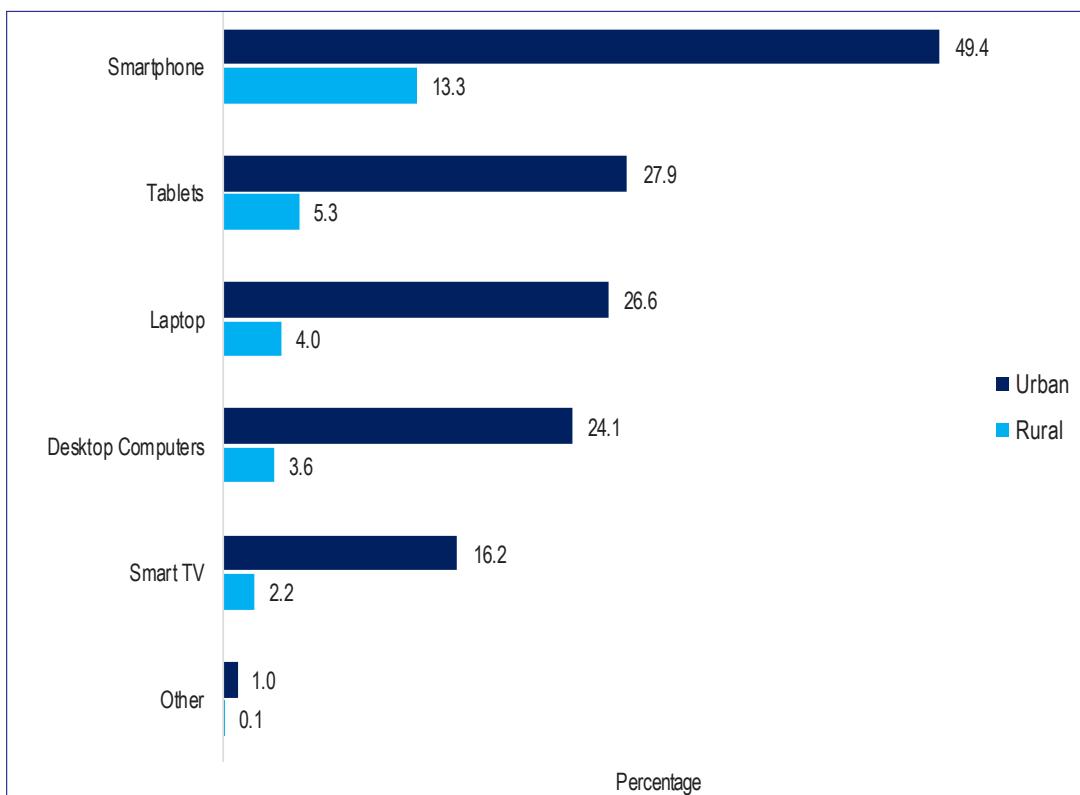
4.2.1. Knowledge on the Usage of ICT devices by Individuals

4.2.1.1. Knowledge on the Usage of ICT devices

The survey considered knowledge on the usage of a given set of ICT devices including a desktop computer, laptop computer, tablet, smartphone and a smart television amongst individuals aged 10 years and older. It was observed that 11.5 percent of individuals in the country had the ability to use a desktop computer in 2022 relative to 6.8 percent recorded in 2018 signifying a 3.2 percentage point increase. Most individuals were noted to have the ability to use a smartphone, representing 27.3 of the population. On the other hand, the least proportion of individuals had knowledge on the use of a smart television representing 7.6 percent of the population.

Figure 58: Knowledge on the Use of ICT Devices; 2022

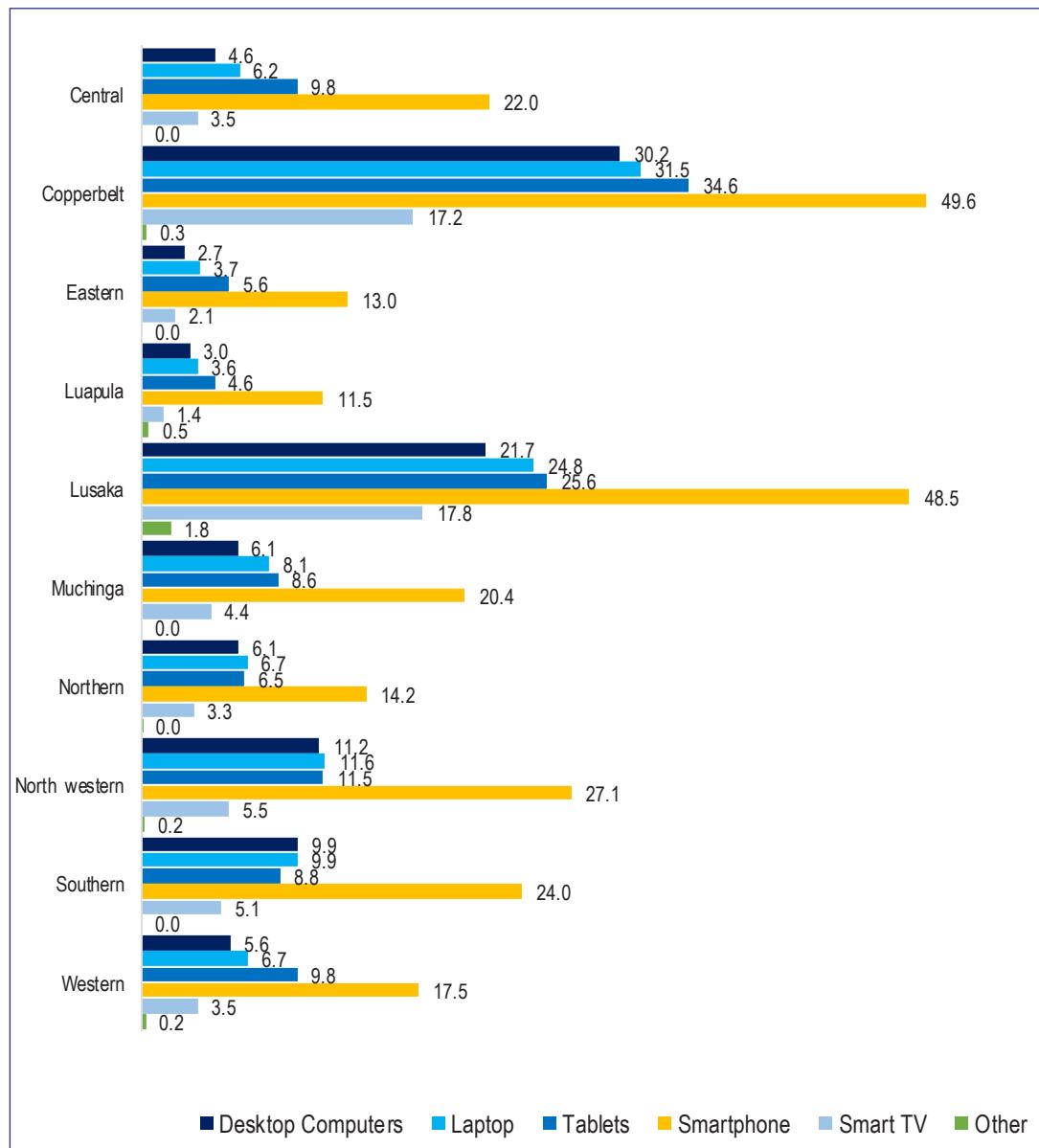
Knowledge on the usage of desktop computers in rural areas was 3.6 percent as compared to 24.1 in urban areas while that of laptops in rural areas was 4.0 percent relative to 26.6 percent in urban areas. Knowledge on the use of smartphones had the highest proportion of individuals in both the urban and rural areas representing 49.4 percent and 13.3 percent respectively. However, the biggest disparity between rural and urban areas on the knowledge of usage of ICT devices was observed amongst smartphones where the difference was estimated at 36.1 percentage points.

Figure 59: Knowledge on the Use of ICT Devices by Region; 2022

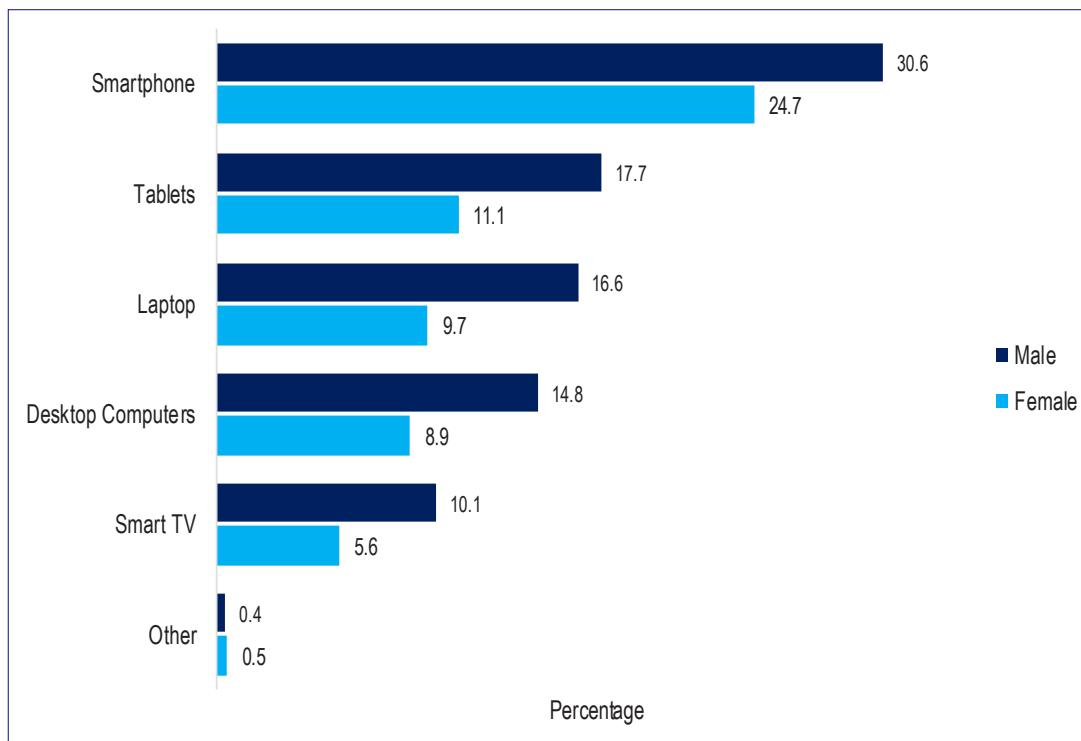
A review of the provincial distribution showed that Copperbelt Province had the highest percentage of people that know how to use a desktop computer with 30.2 percent of the population indicating that they had this knowledge. Similarly, the highest proportion of individuals with knowledge on the use of laptops, tablets and smartphones was observed on the Copperbelt Province at 31.5 percent, 34.6 percent and 49.5 percent of individuals 10 years and older respectively. In contrast, Luapula

Province had the least proportion of individuals who had knowledge on the use of laptops, tablets, smartphones and smart televisions representing 3.6 percent, 4.6 percent, 11.4 percent and 1.4 percent respectively. In contrast, the Eastern Province had the least percentage of the population that had knowledge on how to use a desktop computer with an indicator of 2.7 percent.

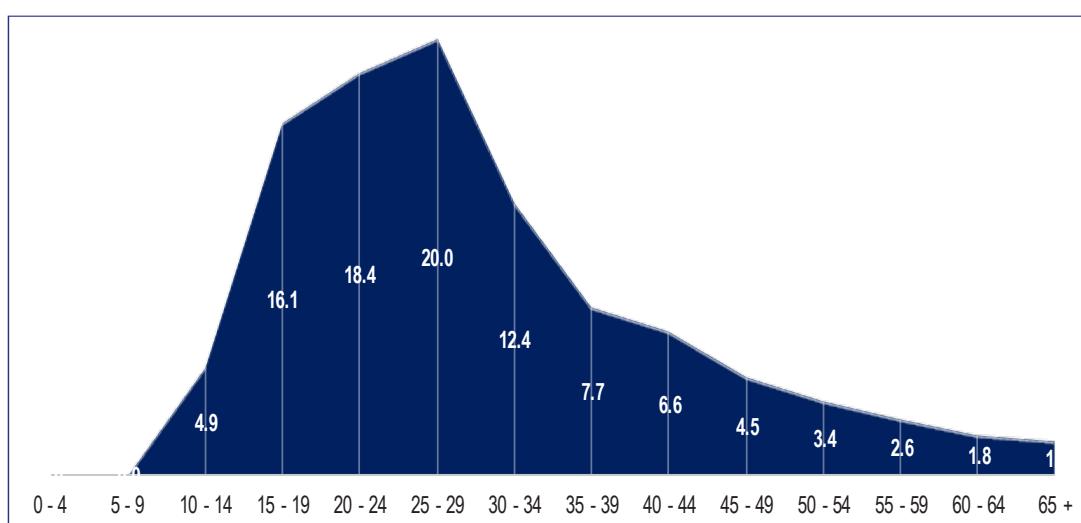
Figure 60: Knowledge on the Use of ICT Devices by Province; 2022



Generally, the proportion of males with knowledge of using any ICT devices was correspondingly higher than the proportion of females with this knowledge. Knowledge on the usage of smartphones was higher amongst males compared to females by 5.9 percentage points. The largest gender disparity was observed on the difference between knowledge on use of laptops were the disparity stood at 6.9 percentage points while that of smart televisions was the lowest at 4.5 percentage points.

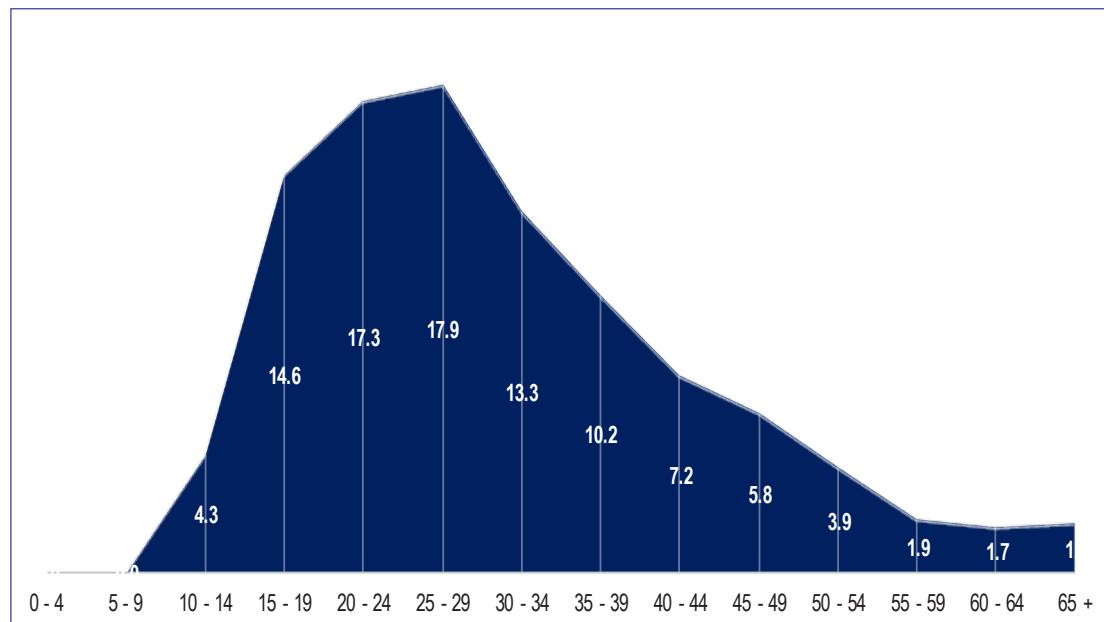
Figure 61: Knowledge on the Use of ICT devices by Sex; 2022

The highest proportion, about 68.0 percent, of individuals with the ability to use a desktop computer were below 30 years old whilst 35.0 percent were aged between 30 and 55 years. Conversely, less than 5.0 percent of individuals with knowledge on the use of desktop computers were above the age of 55. Most individuals with knowledge on the use of desktop computers were aged between 25 to 29, representing a slight shift from estimates obtained in 2018 where most knowledgeable individuals were aged between 15 and 19 years old. The age distribution amongst individuals with knowledge on the use of desktop computers was similar to that of laptop computers and tablets.

Figure 62: Knowledge on the Use a Desktop Computer across Age; 2022

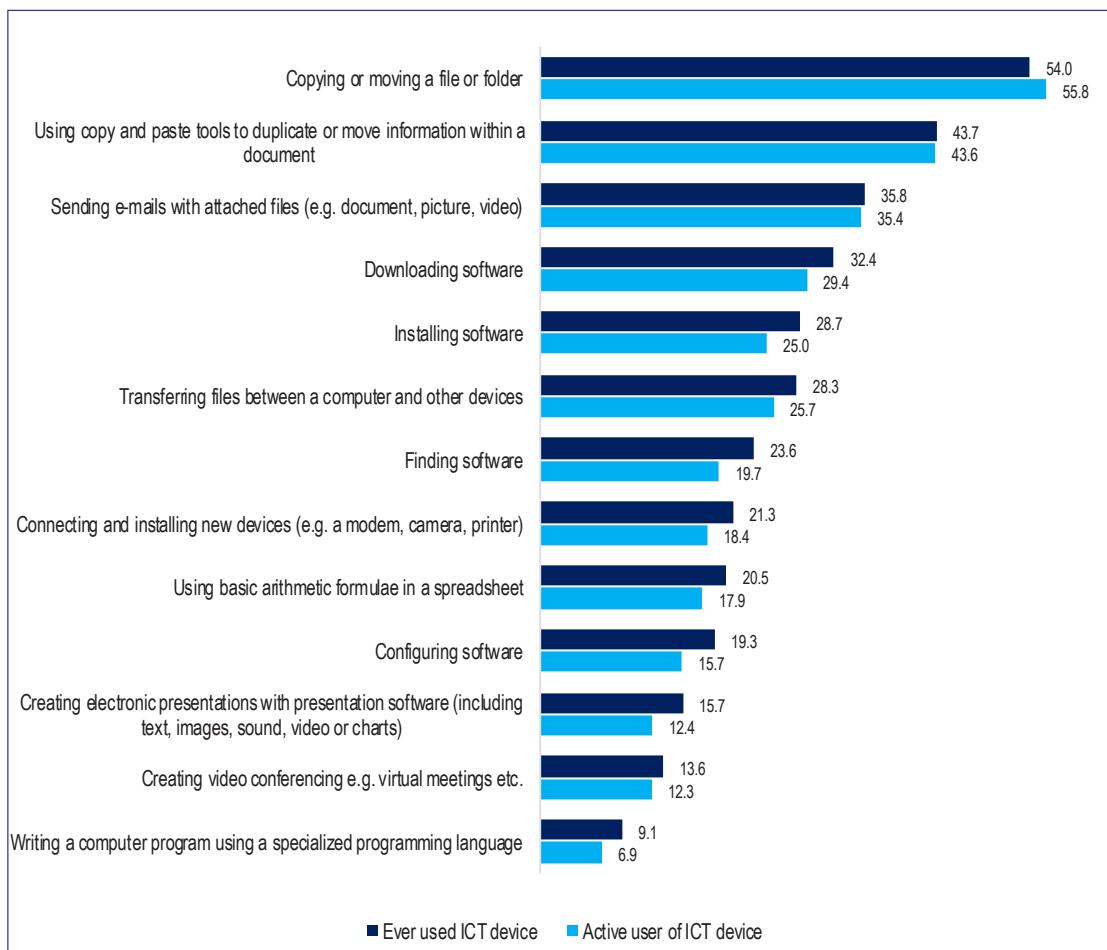
The age distribution with respect to the knowledge on the usage of smartphones amongst individuals aged 10 years and older was more evenly distributed than that of other ICT devices. Specifically, 54.0 percent of the population with this knowledge were below 30 years old whilst 40.0 percent were aged between 30 and 55 years.

Figure 63: Knowledge on Use of Smartphone across Age; 2022

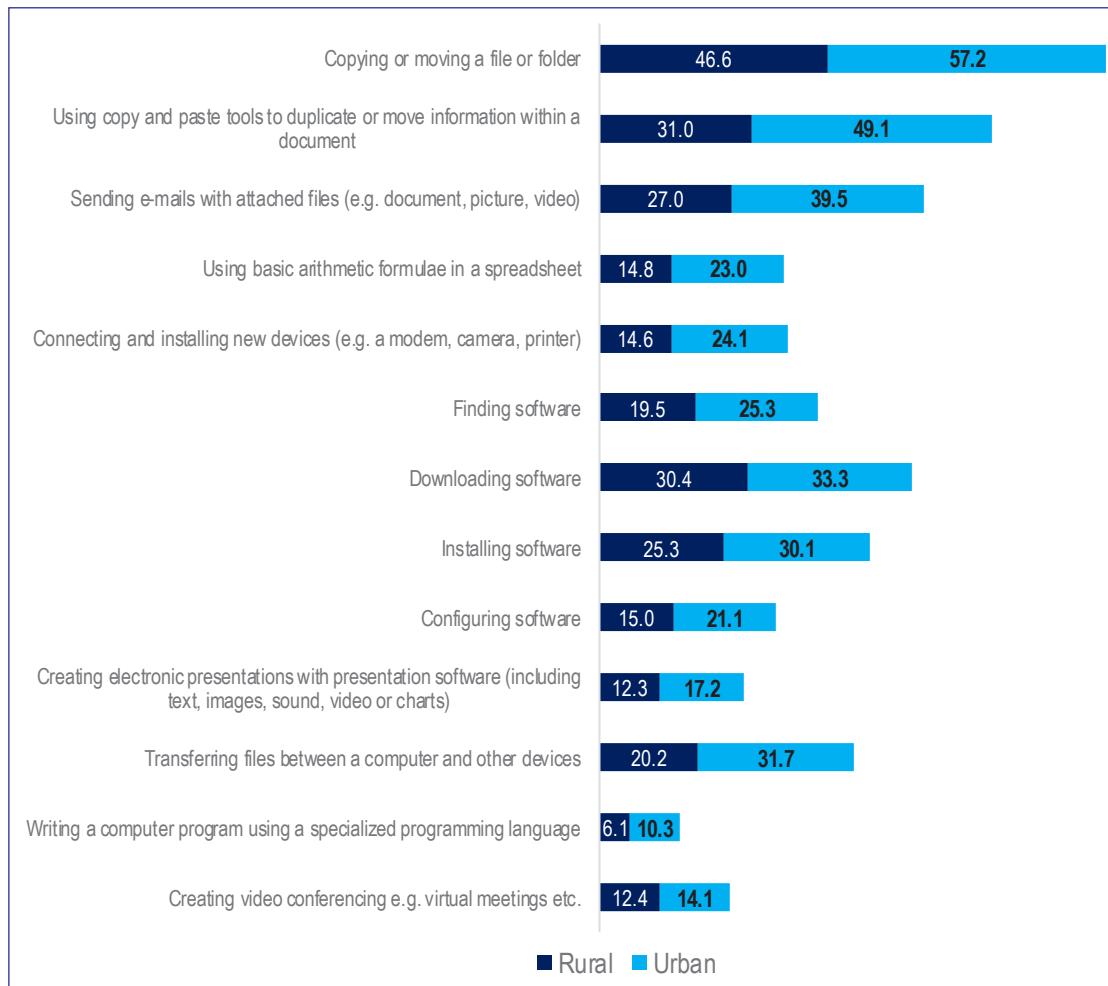


4.2.1.2. Extent of Digital Skills Amongst Individuals

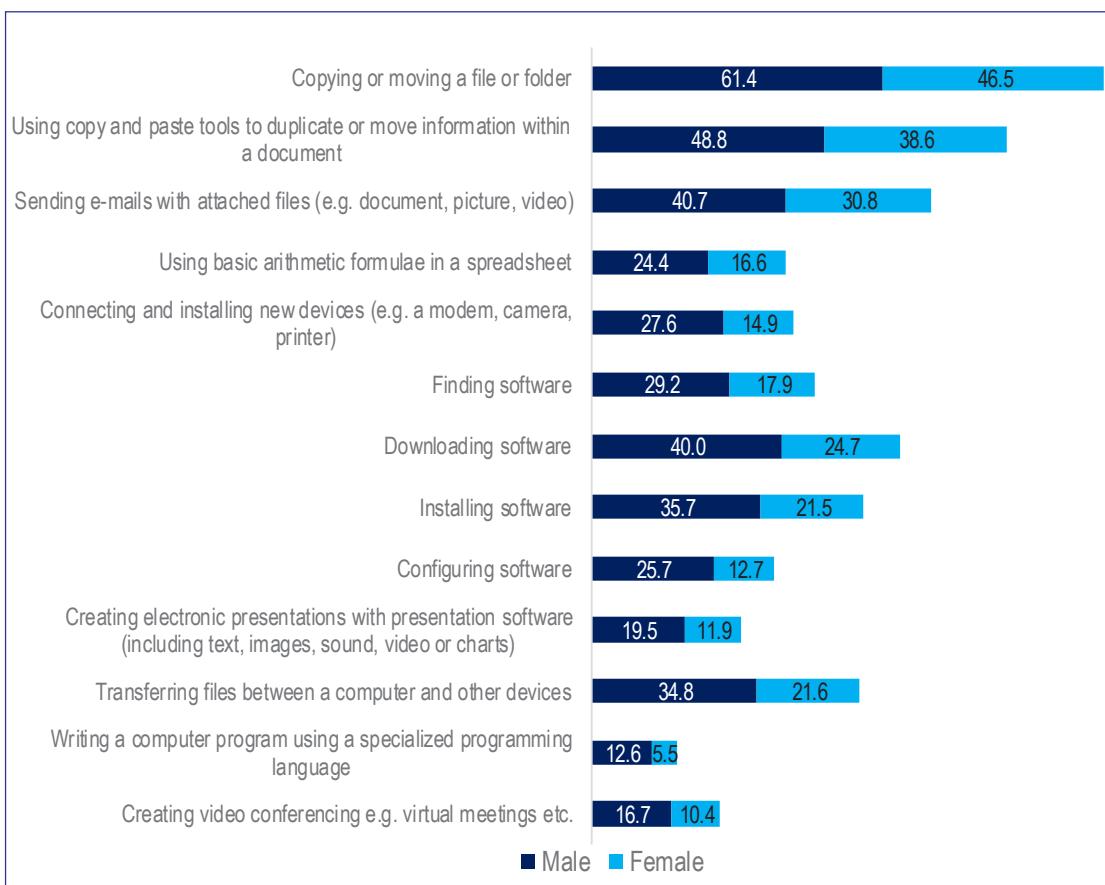
A review of the ICT skills amongst individuals that had used an ICT device revealed that at least 54.0 percent were able to copy or move a file or folder, a skill that is considered a basic digital skill. 55.8 percent of this proportion had used this ICT skill within the three (3) months preceding the data collection. Other basic digital skills such as copying and pasting skills as well as the ability to send emails, were held by at least 30.0 percent of individuals that can use an ICT device. A much lower proportion of this population, about 9.0 percent, had advanced digital skills such as writing a computer program using a specialised language. This was a slight improvement from the proportion of 6.6 percent of individuals with this skill observed in 2018. It was further observed that the proportion of individuals that were actively using these ICT skills declined with complexity of the tasks.

Figure 64: Proficiency in Using an ICT Device; 2022

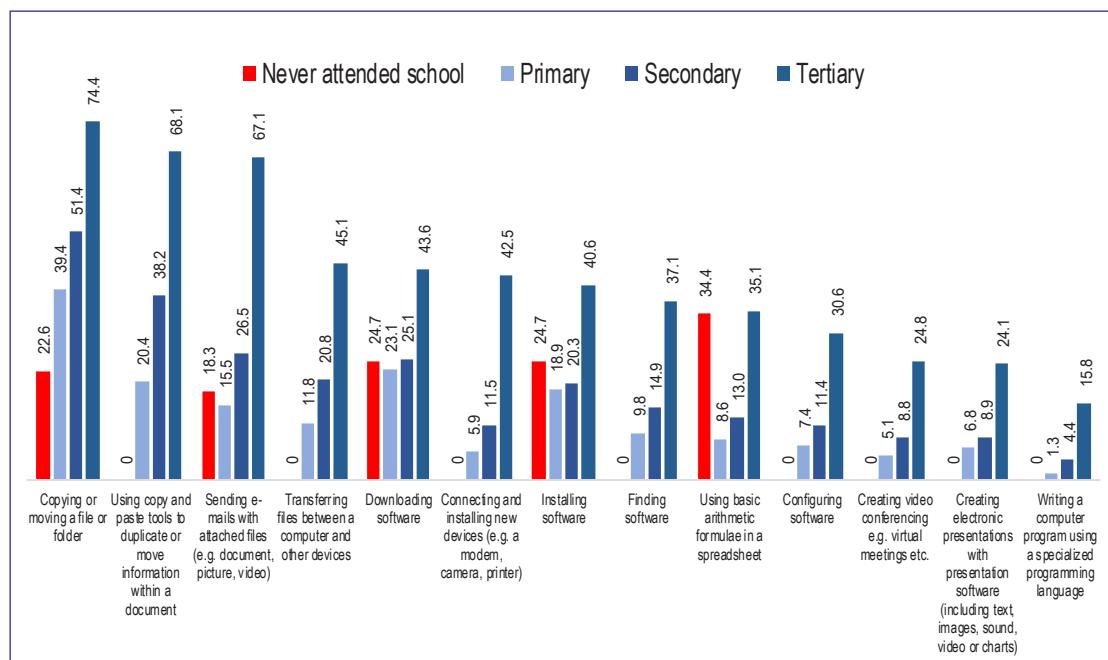
A further review of basic digital skills such as copying and pasting documents, sending emails, connecting and installing new devices as well as basic arithmetic on a spreadsheet indicated that individuals with this skill were more predominant in urban areas relative to rural areas with a disparity of about 10.0 percentage points. Notably, 46.6 percent of individuals that used an ICT device in rural areas were able to copy or move a file and folder relative to 57.2 percent of individuals in urban areas representing a disparity of 10.6 percentage points. The disparity was observed to be much lower for intermediate digital skills including downloading, installing and configuring software. With regards to advanced digital skills (writing a computer program), only 6.1 percent of the rural population that had used an ICT device were able to carry out this task while 10.3 percent of this urban population possessed advanced skills.

Figure 65: ICT Skills by Region: 2022

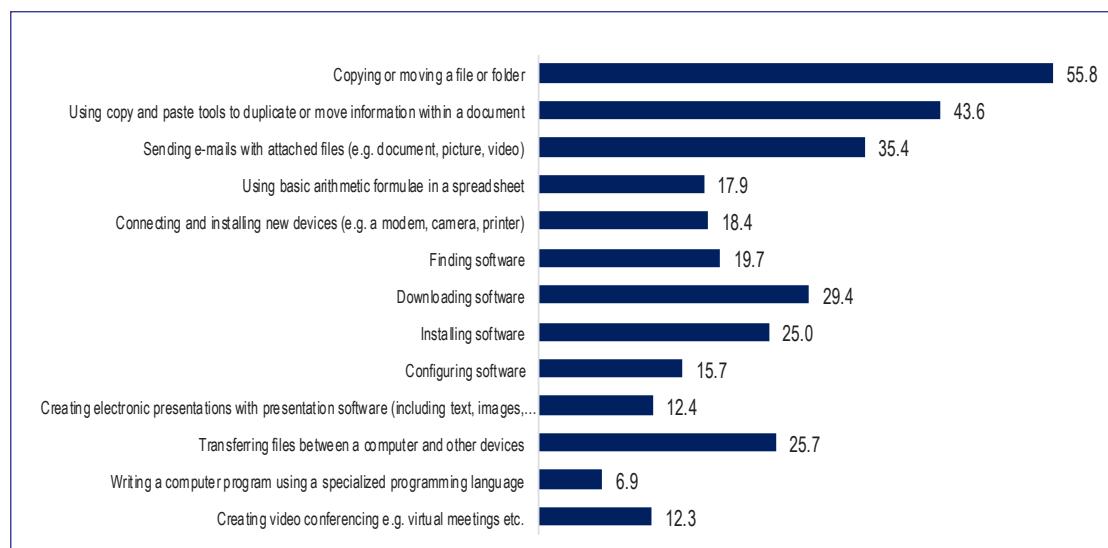
The distribution of individuals according to their sex based on the type of ICT skills revealed that the majority of individuals with the identified skills were male. Notably, 61.4 percent of males that knew how to use an ICT device were able to copy or move a file or folder while 46.5 percent were female. Similarly, 12.6 percent of the males that knew how to use an ICT device were able to write a computer program with a specialised programming language while only 5.5 percent of females that knew how to use an ICT device were able to write a computer program with a specialised programming language representing a variance of 7.1 percentage points.

Figure 66 Figure 64: ICT Skills by Sex; 2022:

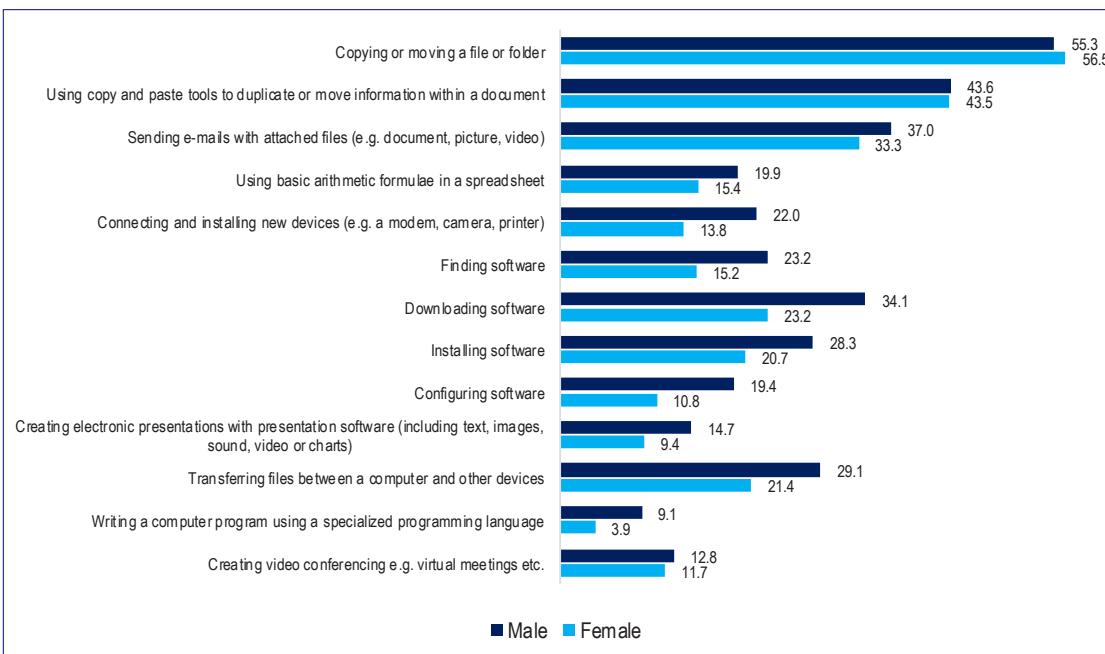
Individuals with tertiary level of education accounted for the highest proportion of individuals with all the identified ICT skills. This was more prominent among ICT skills categorised as basic skills such as copying or moving a folder were over 60.0 percent of tertiary level individuals were able to carry out this task. However, the possession of ICT skills declined with more advanced tasks such as writing computer programs. Individuals without any education mostly had an insignificant proportion of individuals that were able to carry out the identified ICT skills with the exception of copying or moving a folder or file, sending an email with an attachment, using basic arithmetic on a spreadsheet and downloading and installing software.

Figure 67: Active ICT Skills by Level of Education; 2022

The number of individuals that had been able to copy or move a file or folder within the last three (3) months represented 55.8 percent of the individuals that were able to use an ICT device. It was observed that a smaller proportion of individuals had carried out basic ICT tasks such as copying and pasting documents and sending emails within the last 3 months relative to those that had carried out these tasks before. Similarly, a relatively lower proportion were actively undertaking intermediate ICT tasks such as finding, downloading and installing software as well as advanced tasks such as writing a computer language.

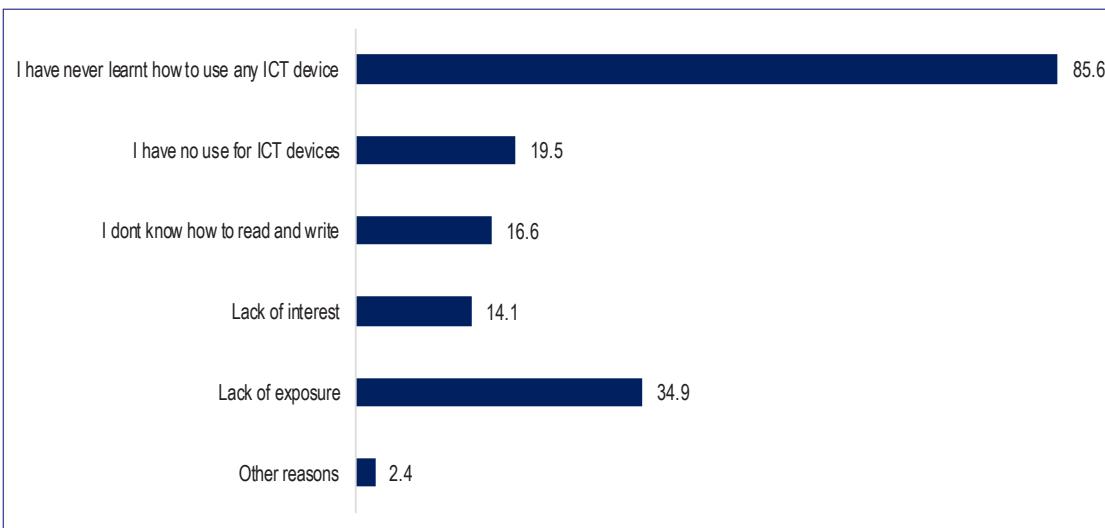
Figure 68: Active Proficiency of Using ICT devices; 2022

The basic skills such as copying or moving a file or folder was dominated by females with 56.5 percent compared to the males with 55.3 percent. Despite the females dominating in that particular skill there was still a relatively higher proportion of males that were active and had intermediate to advanced skills in using ICT devices compared to females.

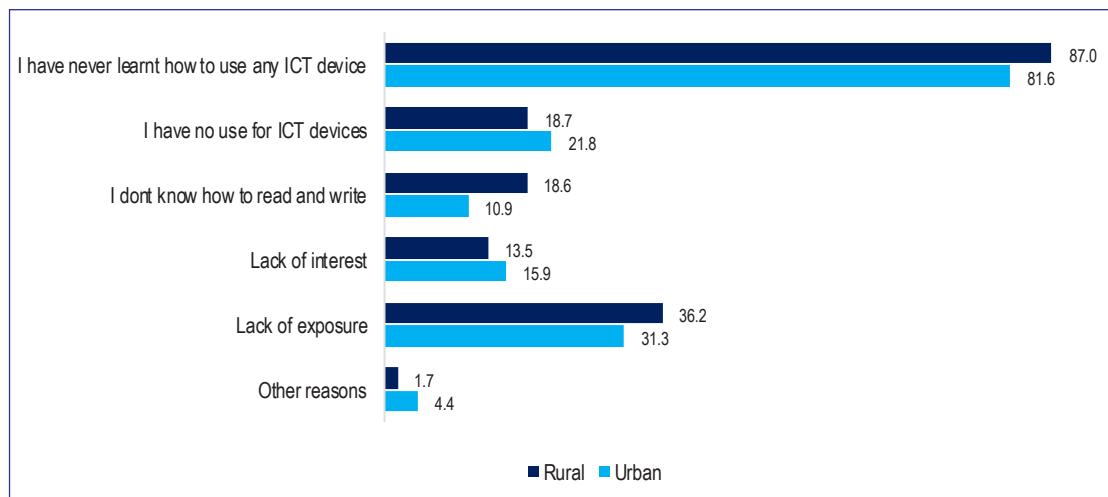
Figure 69: Active ICT Skills by Sex; 2022

4.2.1.3. Reasons for not Knowing How to Use any ICT Devices

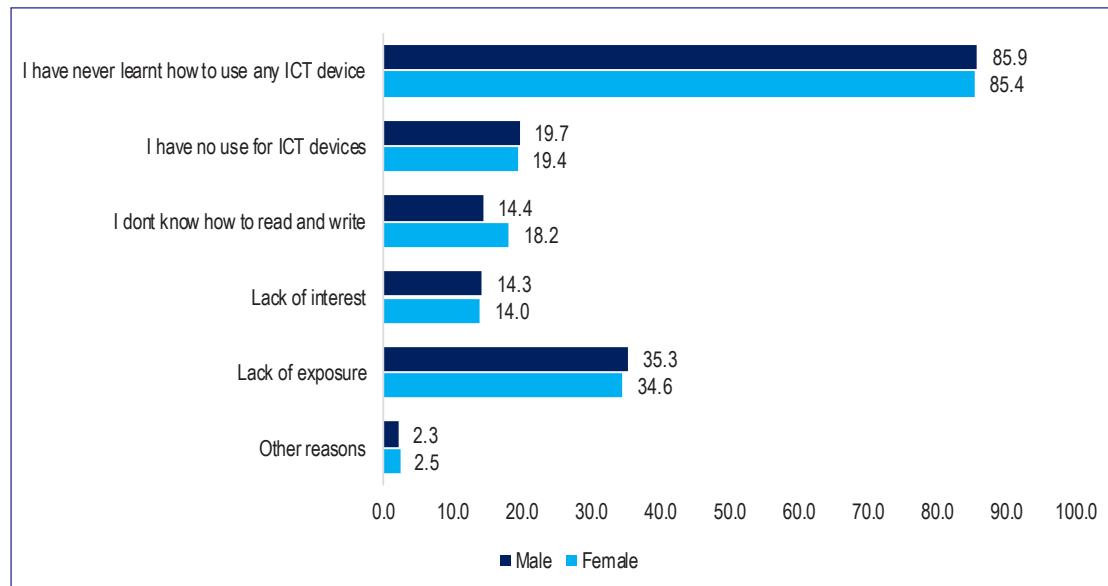
The majority of individuals that did not know how to use any ICT device attributed this to never having had the opportunity to learn how to use an ICT device. Specifically, 85.6 percent of individuals that did not know how to use an ICT device had never learnt how to use a device whilst 36 percent attributed their lack of knowledge to lack of exposure to an ICT device. On the other hand, a smaller proportion of about 16.6 percent of individuals that were not able to use an ICT device attributed it to not being able to read and write.

Figure 70: Reasons for not Knowing How to Use any ICT Device: 2022

Individuals that did not know how to use an ICT device in both rural and urban areas mostly attributed this to never having learnt how to use a device. The proportion of those in rural areas without this knowledge that attributed their state to lack of exposure was higher than that of individuals in urban areas by 4.9 percentage points. On the other hand, more individuals without this knowledge attributed it to lack of interest and not having an ICT device relative to those in rural areas.

Figure 71: Reasons for not Knowing How to Use an ICT Device by Region; 2022

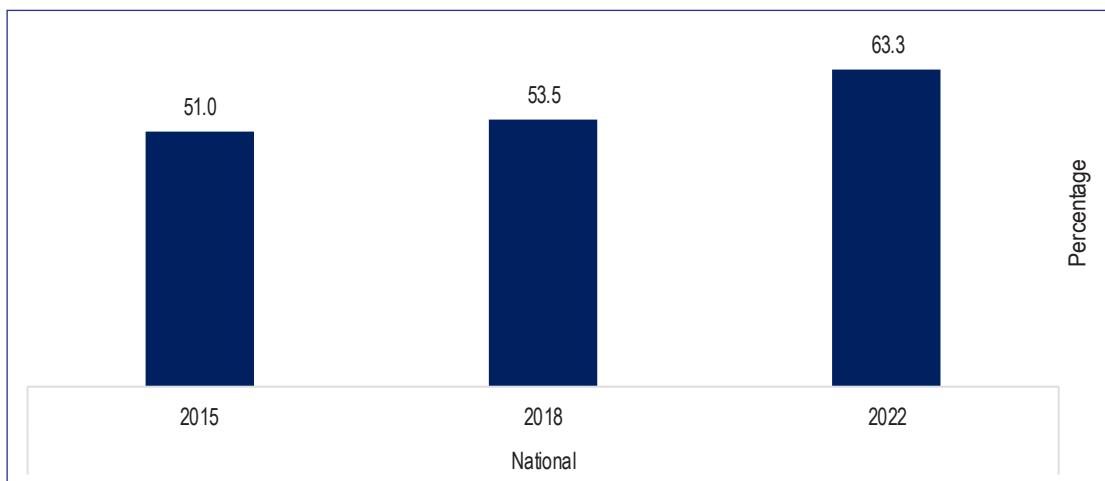
With regards to sex, there were no significant differences between the reasons males and females attributed to not knowing how to use an ICT device. It was however noted that the proportion of females that attributed their lack of knowledge to the inability to read and write was higher than that of males by 3.8 percentage points.

Figure 72: Reasons for not Knowing How to Use any ICT Device; 2022

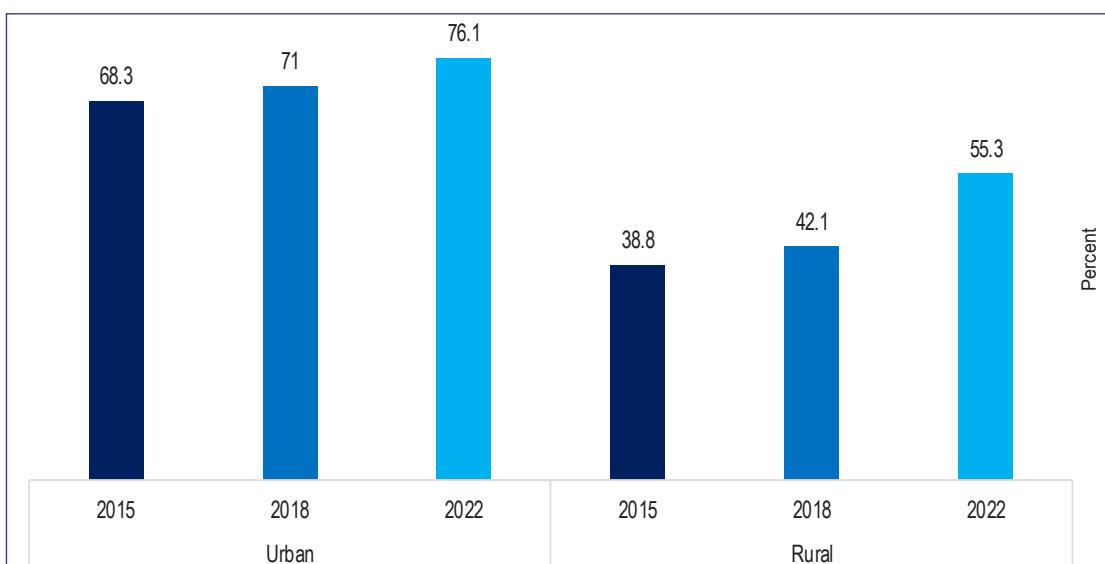
4.2.2. Access and Usage of Mobile Cellular Telephone

4.2.2.1. Active Users of Mobile Cellular Telephone

The proportion of individuals aged 10 years and older that had used a mobile cellular telephone in the 3 months prior to the data collection period was 63.3 percent. This represented an increment of 9.8 percentage points from the proportion of active mobile cellular phone users recorded in 2018 and 12.3 percentage points above the figure recorded in 2015.

Figure 73: Active Mobile Cellular Telephone Usage; 2015 - 2022

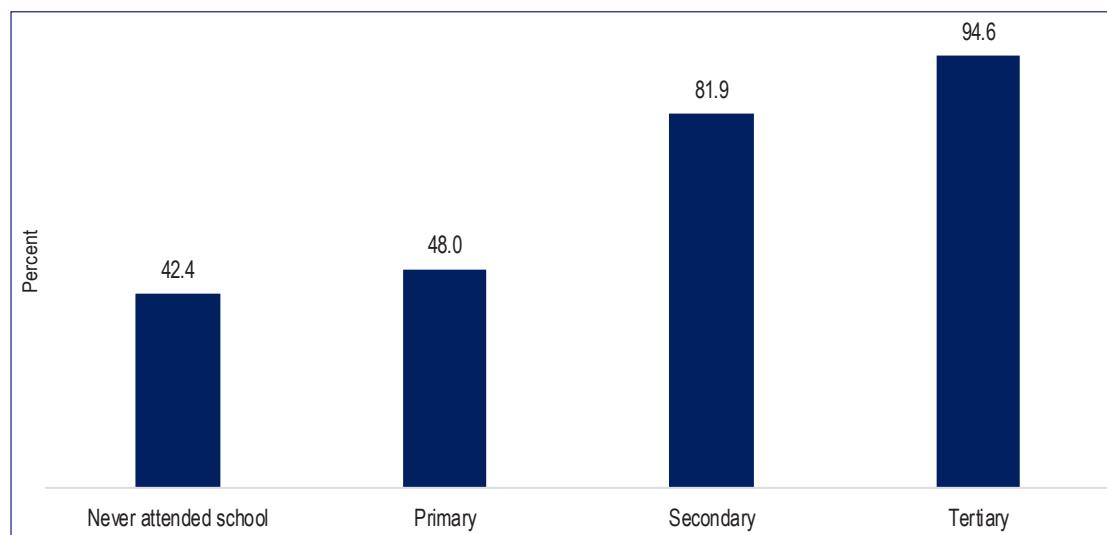
The proportion of active mobile phone users was significantly higher in urban areas than in rural areas as observed in the past. Particularly, 76.1 percent of individuals aged 10 years and older in urban areas were active mobile cellular phone users relative to 55.3 percent of individuals based in rural areas representing a disparity of 20.8 percentage points. The disparity was a slight improvement from the value of 28.9 percentage points observed in 2018 were 71.0 percent of the urban population used mobile phones while 42.1 percent of rural population used mobile phones. It was also noted that the proportion of active mobile phone users in urban areas had increased by 5.1 percentage points over the review period while that of the rural population had increased by 13.2 percentage points.

Figure 74: Active Mobile Cellular Telephone Usage by Region; 2015 - 2022

There were minimal differences in the proportion of active users of mobile phones that were male and those that were female. The proportion of males that reported using a mobile telephone were higher at 66.7 percent than the proportion of females at 60.6 percent. Correspondingly, the proportion of males that had used a mobile phone was 6.6 percentage points higher than that of females in 2022. It was also noted that mobile phone usage amongst males and females between 2018 and 2022 had increased significantly by 9.7 percentage points and 9.8 percentage points respectively.

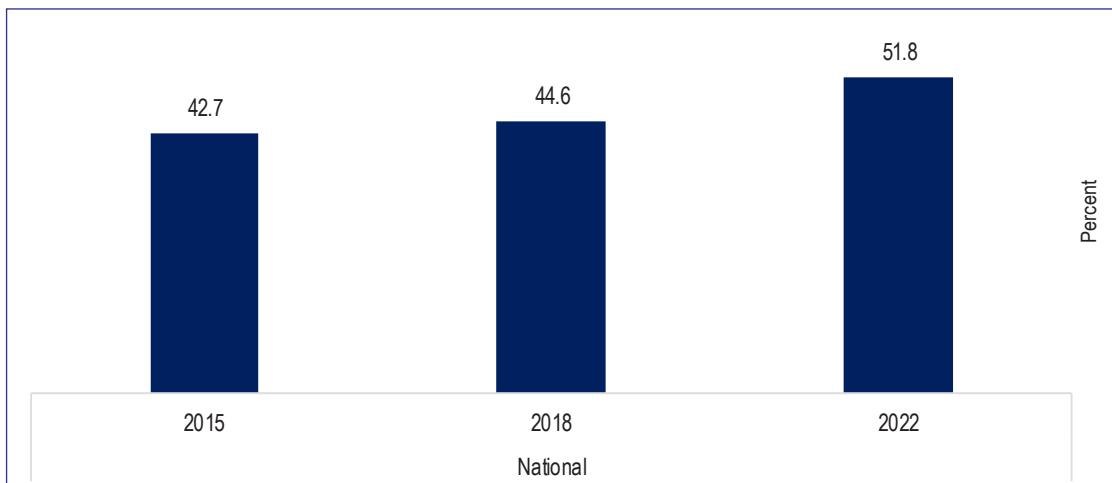
Figure 75: Active Mobile Cellular Telephone Usage by Sex; 2018 - 2022

A review of the level of education of the active mobile cellular users showed that individuals 10 years and older with higher levels of education were more likely to be active mobile cellular telephones users. Specifically, 94.6 percent of individuals with tertiary level of education were active mobile cellular users while 81.9 percent of those with secondary school education were active mobile cellular users. On the contrary, less than 50.0 percent of individuals with primary education or without any education were active mobile cellular users.

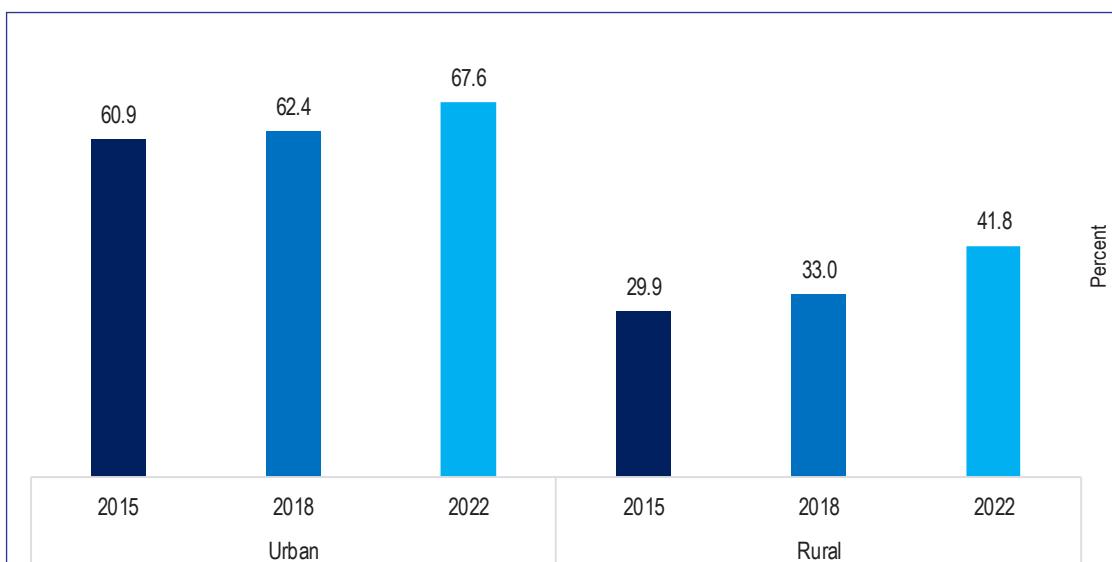
Figure 76: Active Mobile Cellular Telephone Usage by Level of Education

4.2.2.2. Ownership of Mobile Cellular Telephone

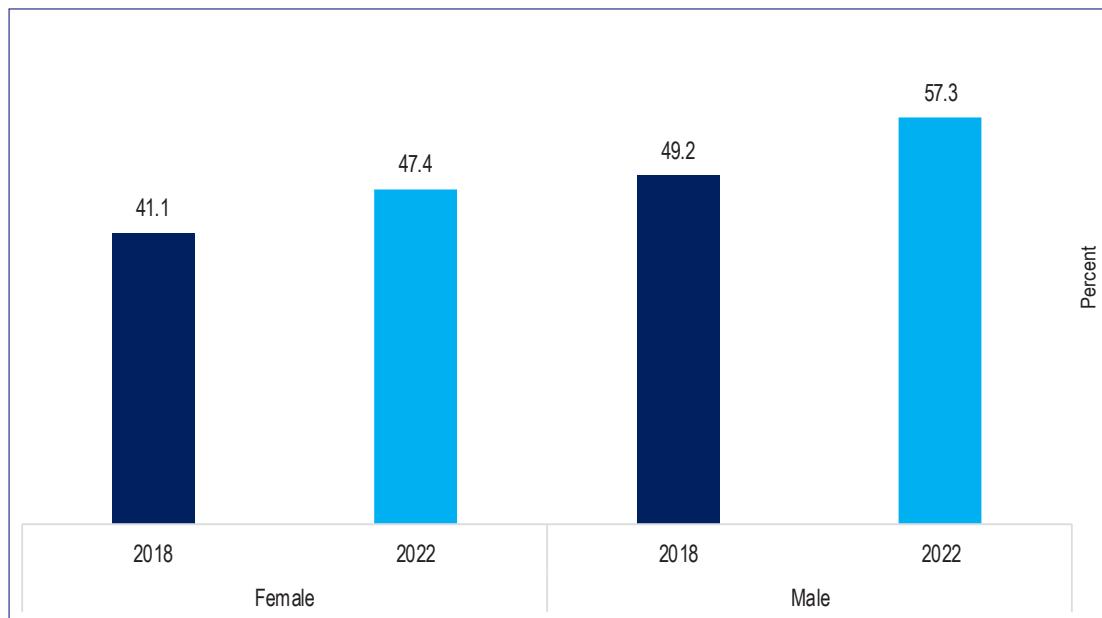
An increase in mobile cellular telephone ownership by individuals aged 10 years and older between 2018 and 2022 was observed. Specifically, the survey revealed that 51.8 percent of individuals above 10 years old owned a mobile cellular telephone reflecting a 7.2 percentage point increment from the mobile ownership rate recorded in 2018.

Figure 77: Mobile Cellular Telephone Ownership; 2015 - 2018

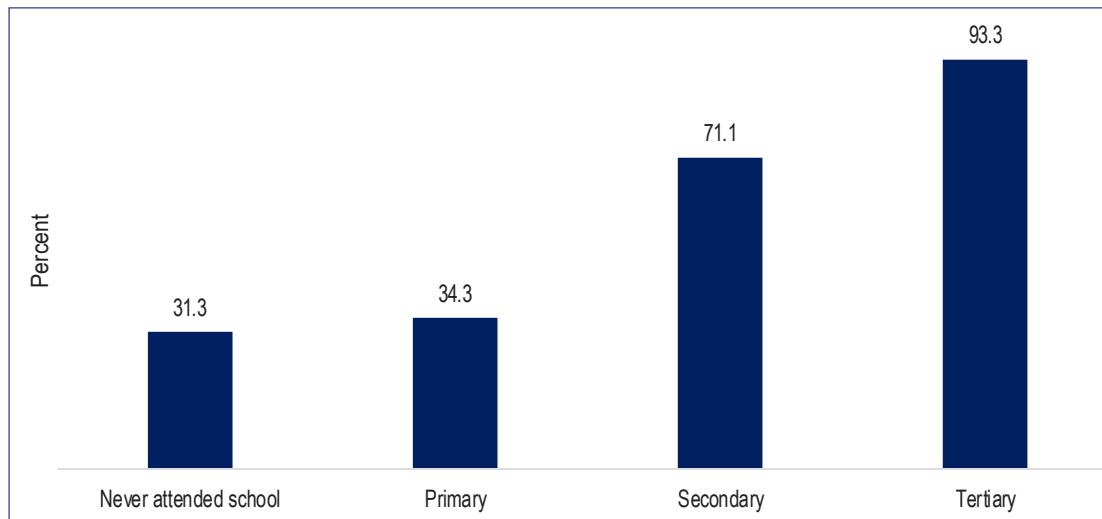
Mobile phone ownership in the urban areas was significantly greater than that of rural areas. Specifically, the percentage of individuals aged 10 years and older that owned a mobile phone in urban areas was 67.6 percent while those in rural areas were estimated at 41.8 percent representing a disparity of 25.8 percentage points. It was however noted that there was a significant increase in mobile phone ownership amongst individuals in rural areas whose proportion increased by 8.8 percentage points while that of urban areas increased by 5.2 percentage points between 2018 and 2022.

Figure 78: Mobile Cellular Telephone Ownership by Region; 2015 - 2022

The proportion of males that owned mobile phones was relatively higher than that of females. It was observed that the increase in ownership of mobile phones in 2022 from 2018 amongst the males was relatively higher than that of the females. The proportion of males that owned a mobile phone increased from 49.2 percent to 57.3 percent translating into an increase of 8.1 percentage points while that of females increased from 41.1 percent to 47.4 percent representing an increase of 6.3 percentage points.

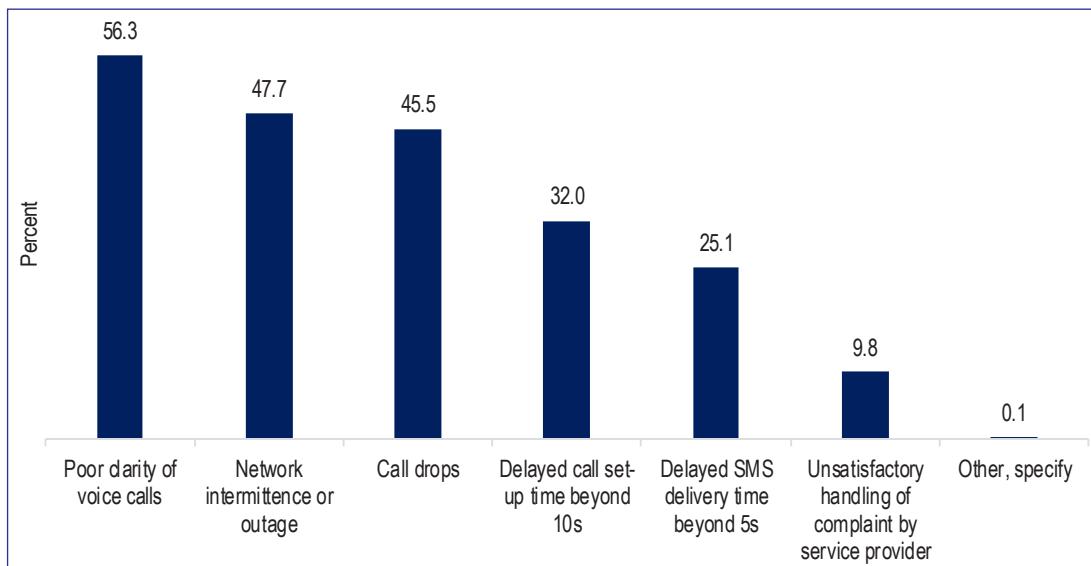
Figure 79: Mobile Cellular Telephone Ownership by Sex; 2018 - 2022

Similar to mobile phone usage, higher levels of education were associated with the state of having a mobile cellular phone. Of the individuals with tertiary education, 93.3 percent own a mobile cellular telephone while 71.1 percent of individuals with secondary education had this device. However, less than 50.0 percent of individuals with primary education or no education owned a mobile phone.

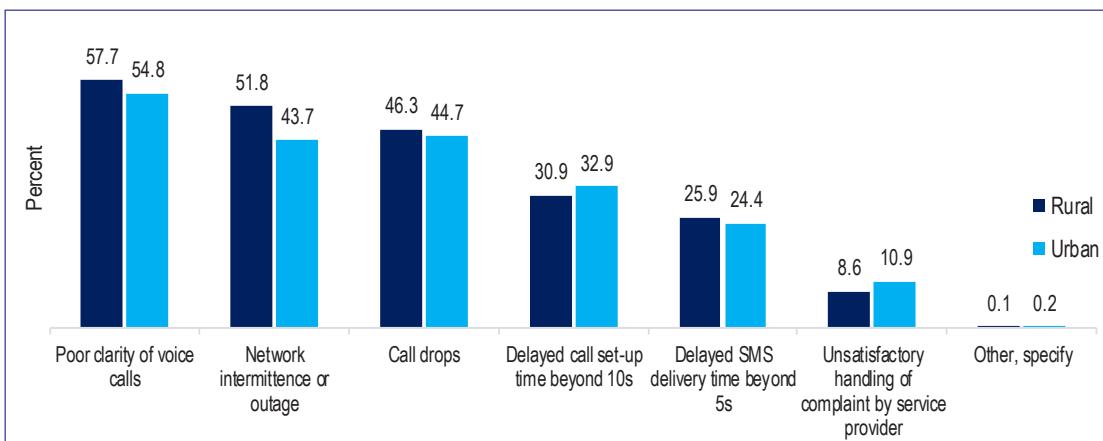
Figure 80: Mobile Cellular Telephone by Level of Education; 2022

4.2.2.3. Quality of User Experience with Mobile Cellular Services

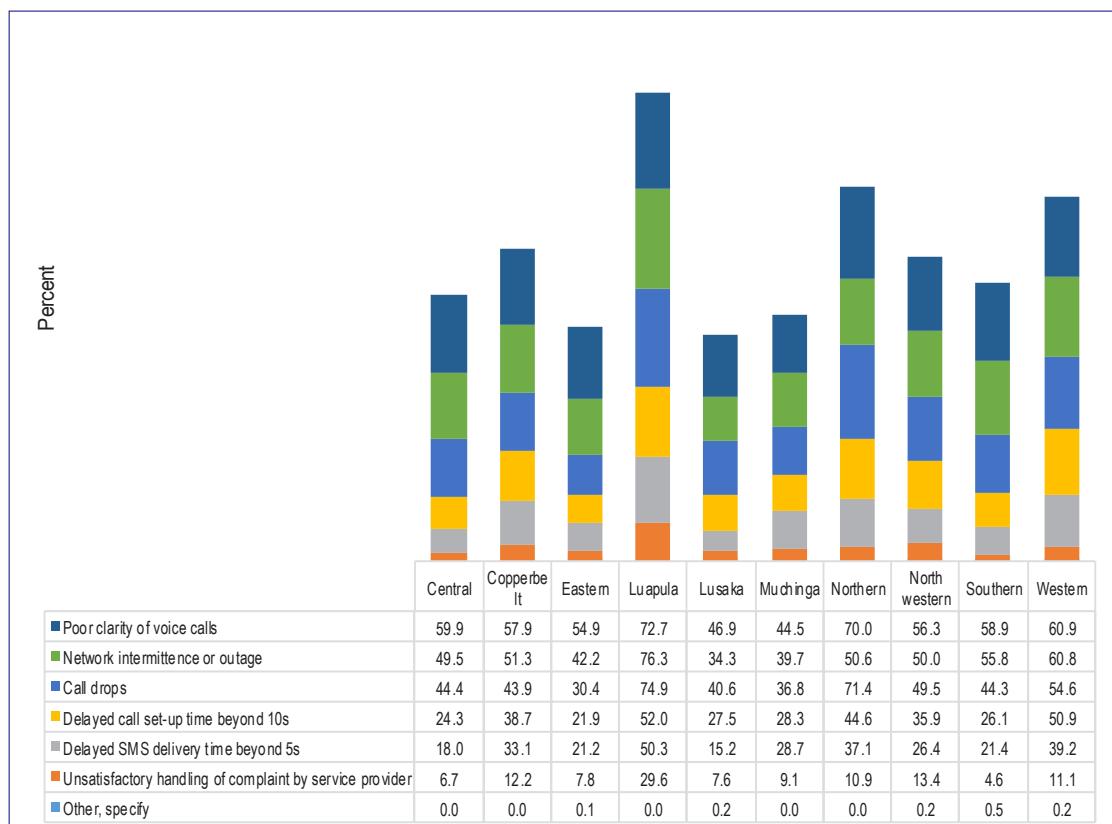
The survey analysed the main challenges that individuals using mobile cellular phones had experienced in the course making voice calls. The most common challenge experienced by mobile cellular users was poor voice clarity encountered by 56.3 percent of all mobile cellular users. The proportion of mobile cellular users that experienced unsatisfactory handling of complaints by the service provider were noted to be the least as only 9.8 percent of users encountered this challenge.

Figure 81: Challenges Experienced in the use of Mobile Cellular Services: 2022

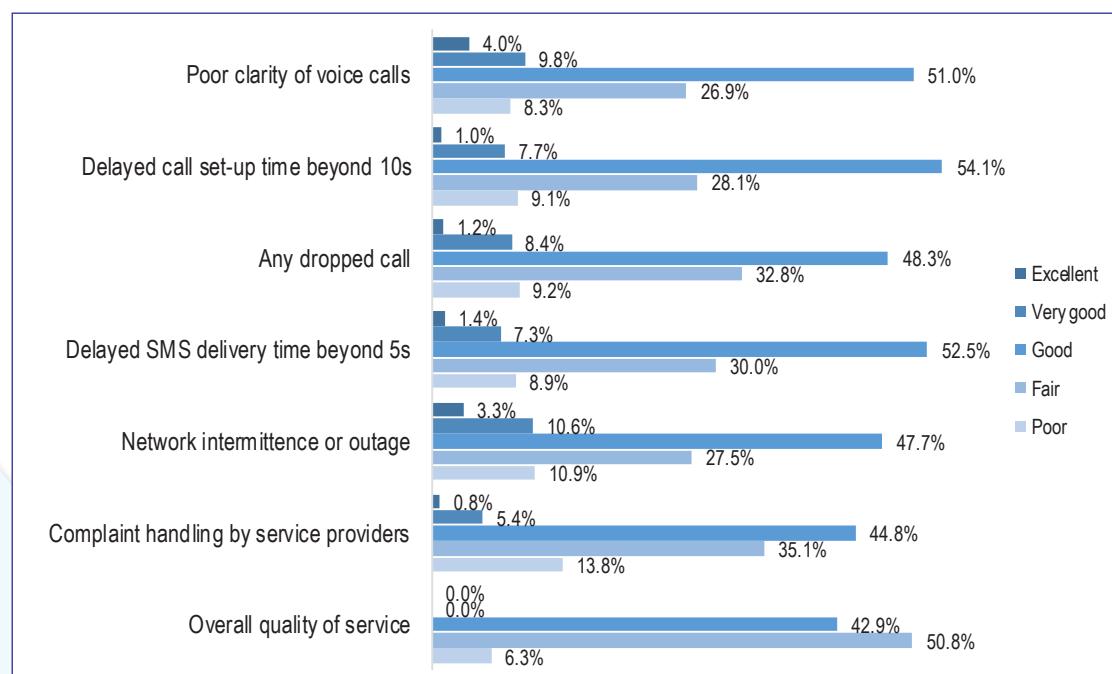
Poor clarity of voice calls was noted to be more prevalent in rural areas than urban areas as 57.7 percent of mobile phone users in rural areas experienced this challenge relative to 54.8 percent of individuals in urban areas. Correspondingly, network intermittence or outage, dropped calls and delayed SMS delivery time were more prevalent in rural areas while delayed call set-up and unsatisfactory handling of complaints by the service provider were more common in urban areas.

Figure 82: Quality of Experience by Region: 2022

The provincial distribution of the challenges encountered by mobile cellular users showed that Luapula, Northern and Western Provinces had a higher proportion of mobile cellular users that experienced these challenges. More than 50.0 percent of mobile cellular users in Luapula Province experienced poor voice clarity, delayed call set-up, delayed SMS delivery, network intermittence and call-drops. On the other hand, Lusaka Province had the least proportion of mobile cellular users encountering these challenges.

Figure 83: Quality of Experience by Province; 2022

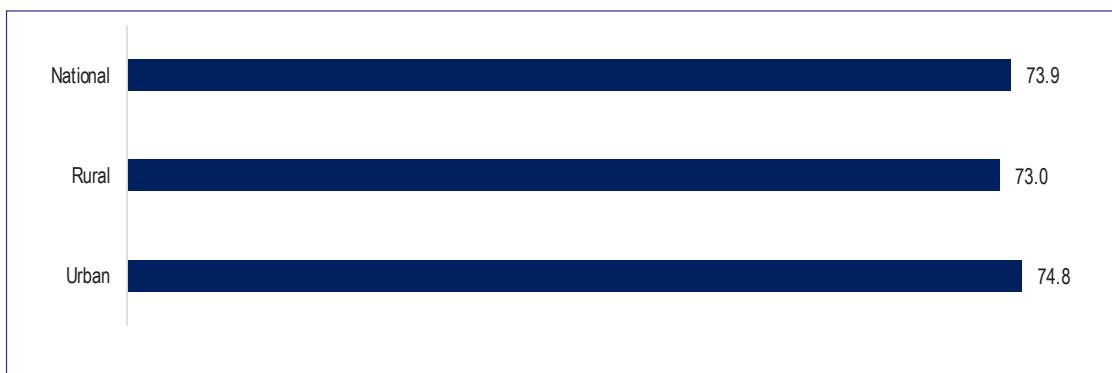
Further analysis of mobile cellular service experience measured using a Likert scale showed that most individuals rated almost all the aspects of mobile cellular services as good. Specifically, over 50.0 percent of mobile phone users' rated voice clarity, call set-up time, dropped call and network outage parameters as good. Over 60.0 percent of mobile phone users ranked the parameters on voice clarity, call set-up time, network intermittence and SMS delivery time as either good, very good or excellent. On the other hand, about 60.0 percent of individuals that used mobile phones rated their overall quality of service as either fair or poor.

Figure 84: Rating of Quality of Service of Mobile Cellular Services; 2022

4.2.2.4. Affordability of Mobile Voice Services

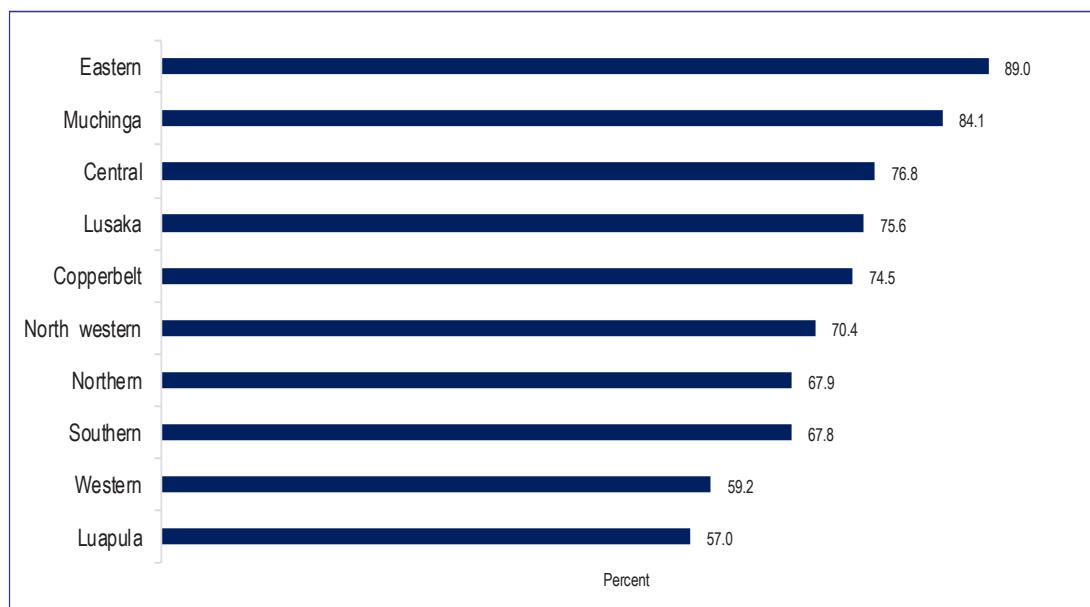
An estimated 74.0 percent of mobile cellular phone users were of the view that mobile voice services were affordable. The perception of affordability of mobile voice services amongst individuals in urban areas corresponded to that of individuals in rural areas with a marginal disparity of 1.8 percentage points. On the contrary, 26.1 percent of mobile cellular phone users felt that mobile phone services were not affordable.

Figure 85: Perception of Mobile Cellular Service Affordability; 2022



A provincial distribution of the perception of affordability of mobile cellular services showed slight variations among provinces. Mobile cellular phone users in Eastern Province considered mobile cellular services to be affordable with only 11.0 percent of mobile cellular phone users in the province holding an alternative opinion. Luapula Province and Western Province had the highest proportion of mobile phone users that felt mobile cellular services were not affordable representing 57.0 percent and 59.2 percent of mobile phone users respectively.

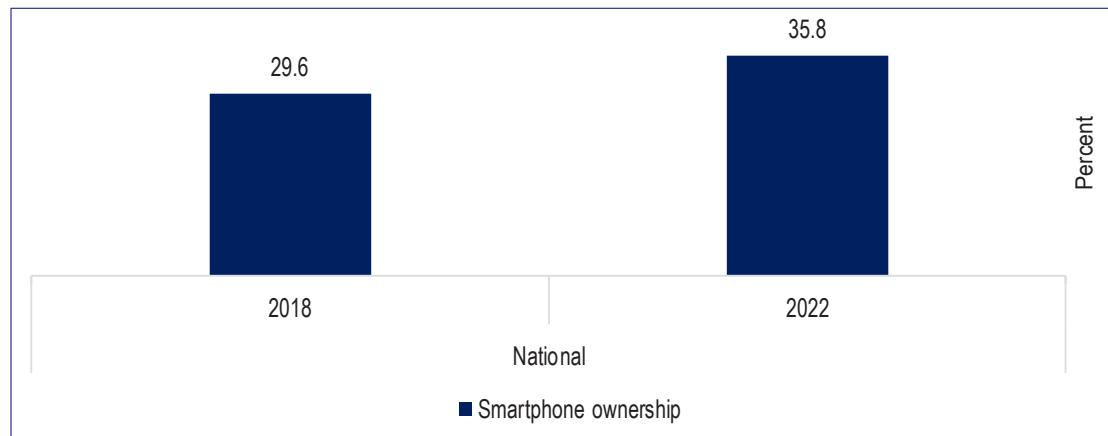
Figure 86: Affordability of Mobile Cellular Service by Province: 2022



4.2.2.5. Ownership of Smartphones

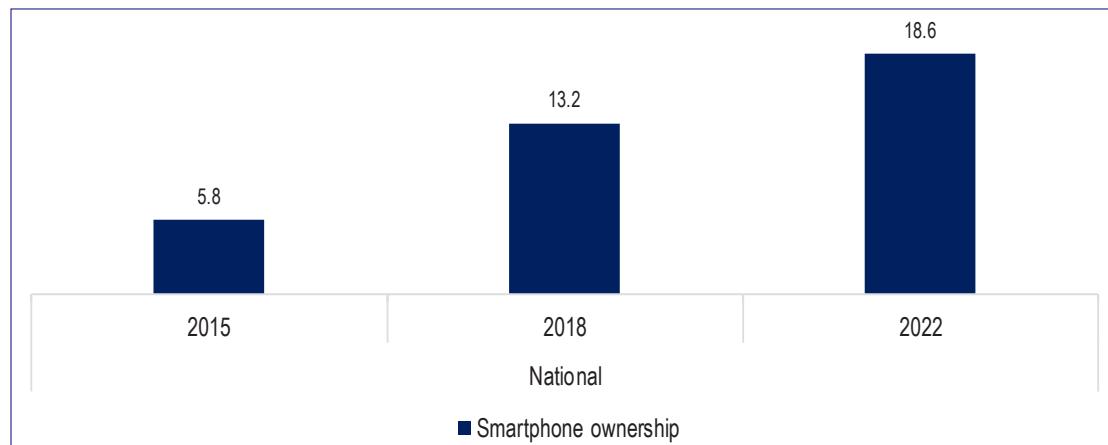
Among the total number of individuals aged 10 years and older that owned mobile phones, 35.8 percent were noted to have smartphones. This represented a 6.2 percentage point increase in the proportion of individuals with mobile phones that owned smartphones from 29.6 percent recorded in 2018.

Figure 87: Proportion of Smartphone Ownership amongst Mobile Cellular Telephone Owners; 2018 - 2022



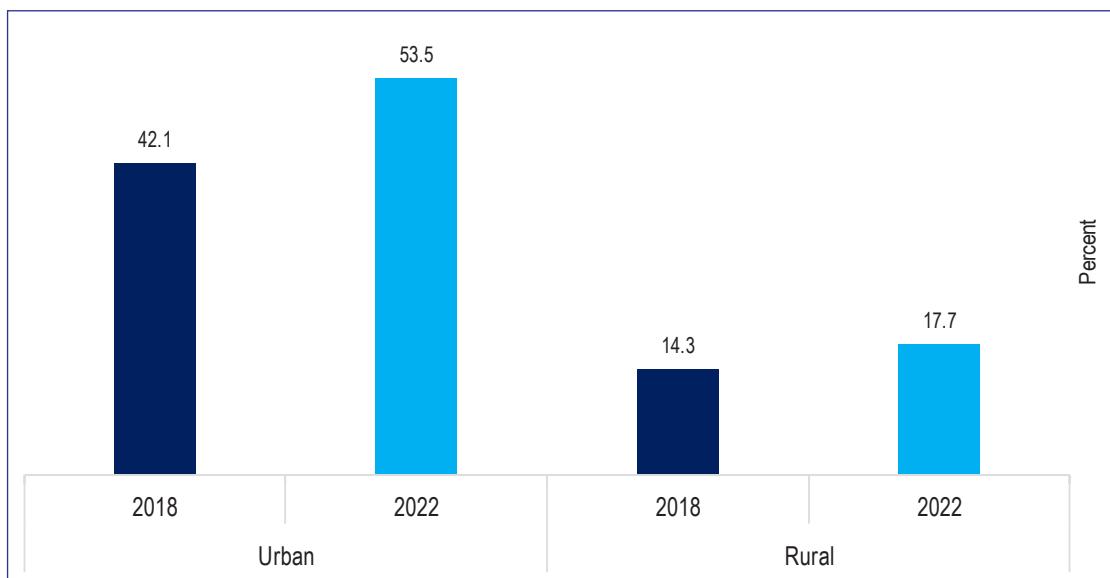
Generally, the proportion of individuals aged 10 years and older that owned a smartphone was 18.6 percent. This represented an increase in the smartphone ownership from 13.2 percent in 2018 to 18.6 percent in 2022 translating into a growth rate of 5.4 percentage points.

Figure 88: Smartphone Penetration Rate; 2015 - 2022



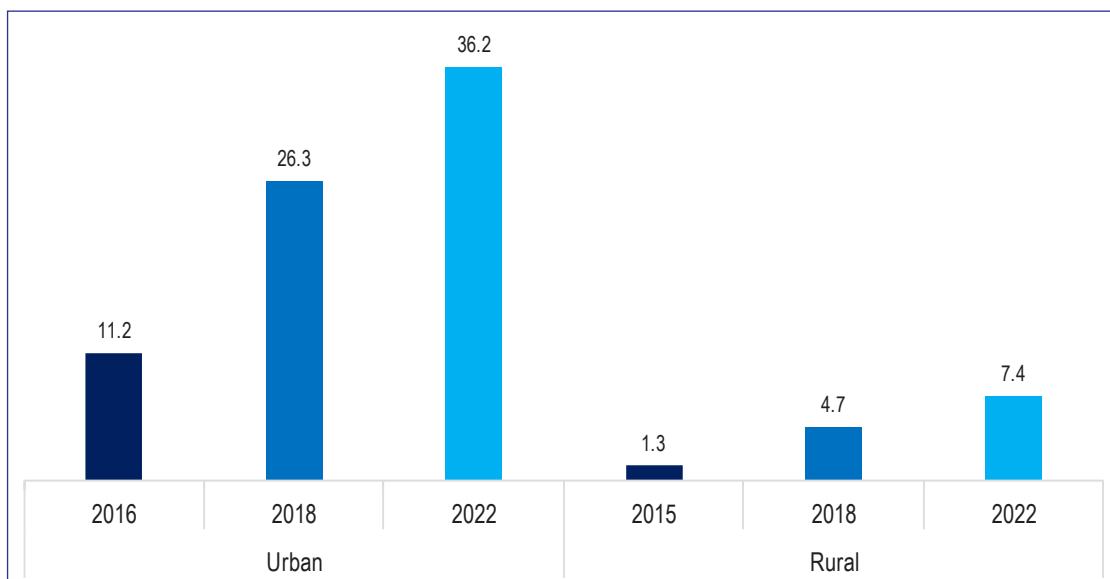
The proportion of mobile phone owners with smartphones in rural areas remained low, estimated at 17.7 percent in 2022, relative to 53.5 percent in urban areas. There was also a meagre increase in the proportion of smartphones relative to mobile phones in rural areas as ownership grew by 3.4 percentage points while that of urban areas grew by 11.4 percentage points between 2018 and 2022.

Figure 89: Proportion of Mobile Cellular Owners that Own a Smartphone by Region; 2018 - 2022

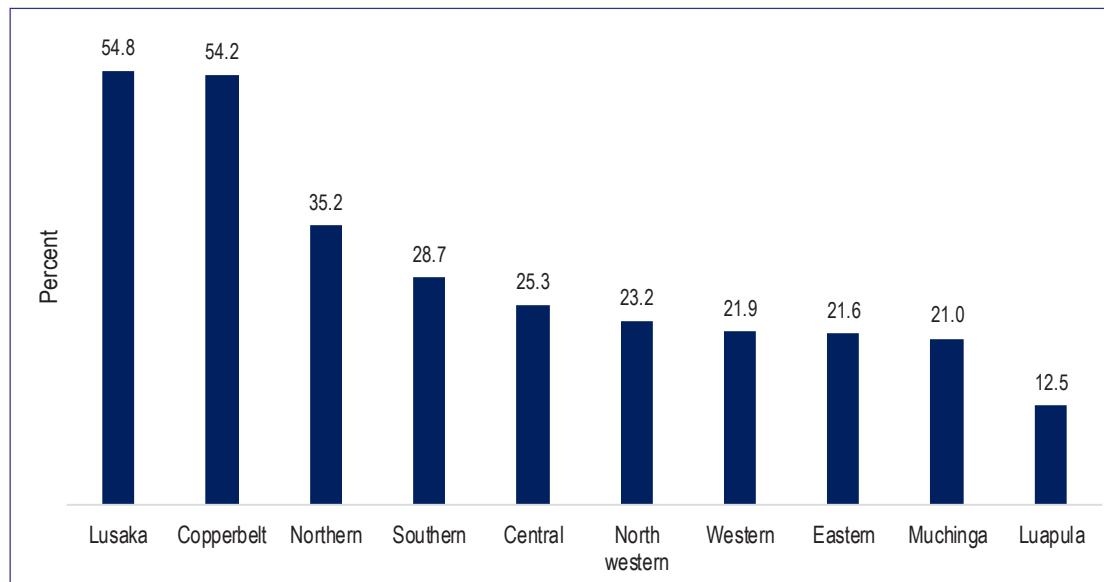


Relative to the population aged 10 years and older, smartphone ownership in urban areas was equally greater than that of rural areas. Notably, smartphone penetration in urban areas was 36.2 percent while that of rural areas was 7.4 percent representing a rural-urban disparity of 28.8 percent points. The smartphone penetration rate in rural areas grew at a slower rate than that of urban areas as the penetration rate in urban areas increased by 9.9 percent points while that of rural areas grew by 2.7 percent points between 2018 and 2022.

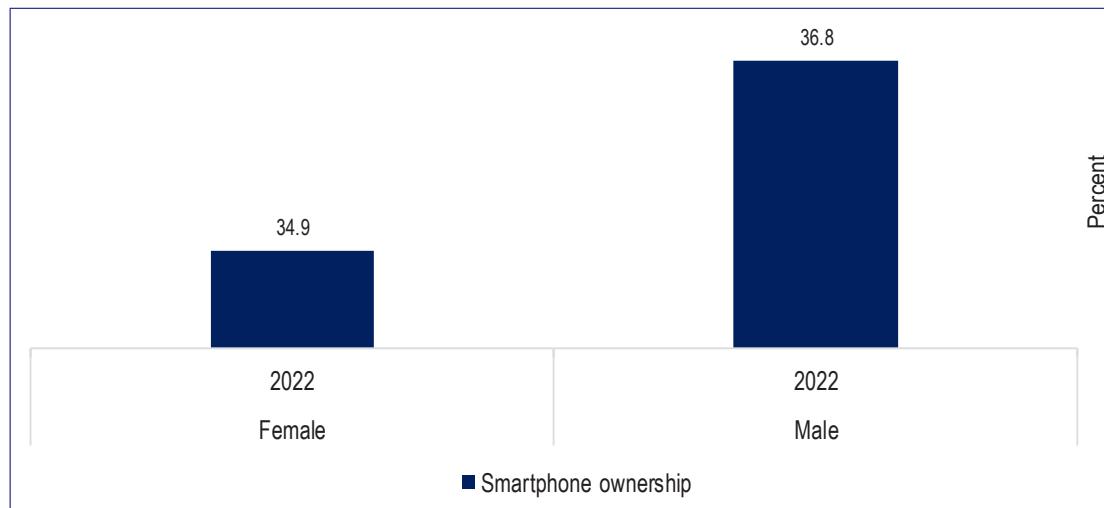
Figure 90: Smartphone Penetration by Region 2015 - 2022



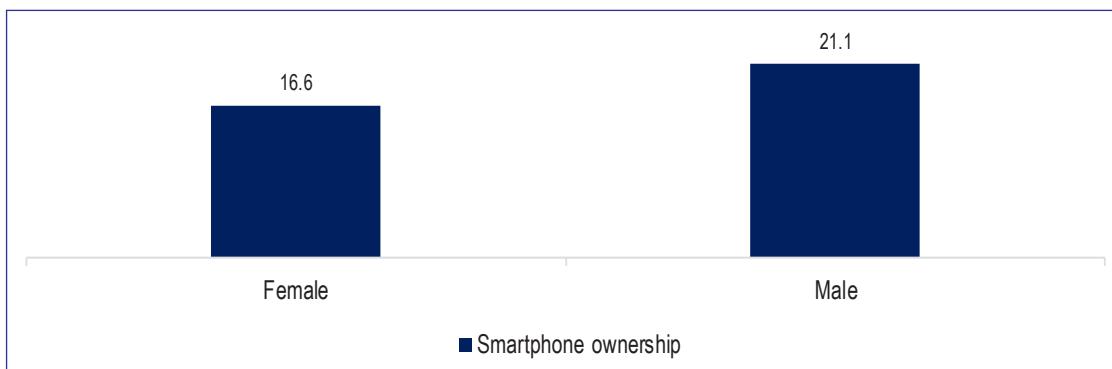
The proportion of individuals with mobile phones that had smartphones was significantly high in Lusaka at 54.8 percent, 19.0 percentage points above the national average. This proportion was similar to that of the Copperbelt where 54.2 percent of individuals with mobile phones had smart phones. On the other hand, Luapula had the least number of smartphone owners with only 12.5 percent of mobile phone owners possessing a smartphone.

Figure 91: Smartphone Ownership by Province; 2022

It was noted that there was a relatively larger proportion of males with mobile phones that indicated that they owned smartphones compared to the proportion of females with mobile phones that owned a smartphone. Specifically, 36.8 percent of males with mobile phones owned a smartphone while 34.9 percent of females owned a smartphone representing a gender disparity of 1.9 percent points.

Figure 92: Proportion of Mobile Cellular Owners that Own a Smartphone by Sex; 2022

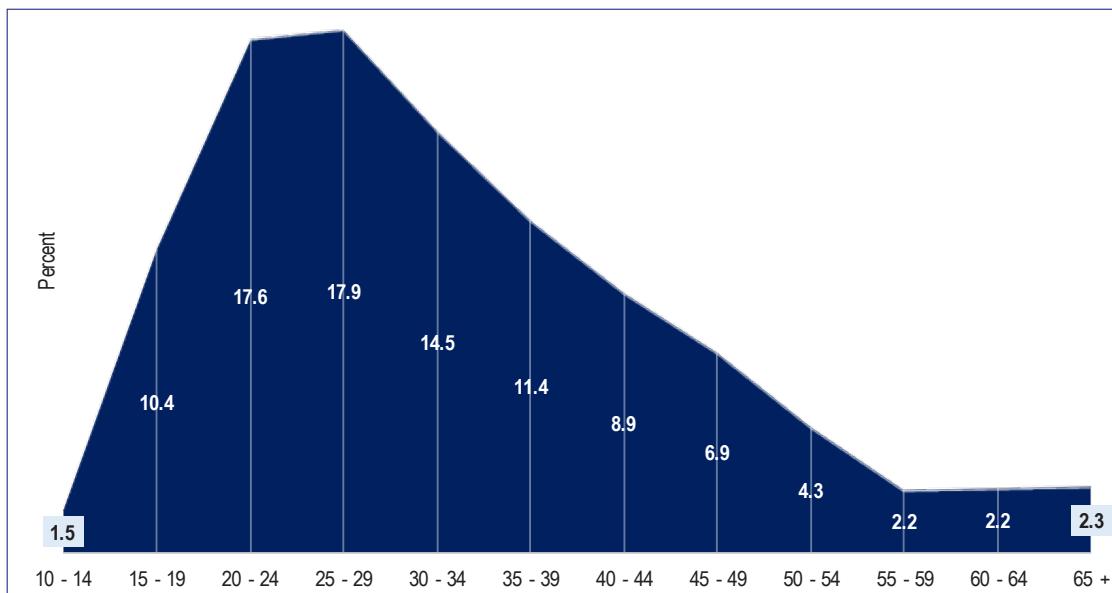
The overall smartphone penetration rate defined as the number of smartphones relative to the population size in 2022 was estimated at 21.1 percent for males and 16.6 percent for females. This translates into a gender disparity of 4.5 percentage points amongst individuals aged 10 years and older that own a smartphone.

Figure 93: Smartphone Penetration by Sex; 2022

With regards to disability status, 25.1 percent of Persons with Disabilities (PwDs) that had a mobile cellular telephone owned a smartphone. This was 11.0 percentage points lower than the proportion of able bodied individuals that owned a smartphone and 10.7 percentage points below the national average.

Figure 94: Proportion of Mobile Cellular Owners that Own a Smartphone by Disability Status; 2022

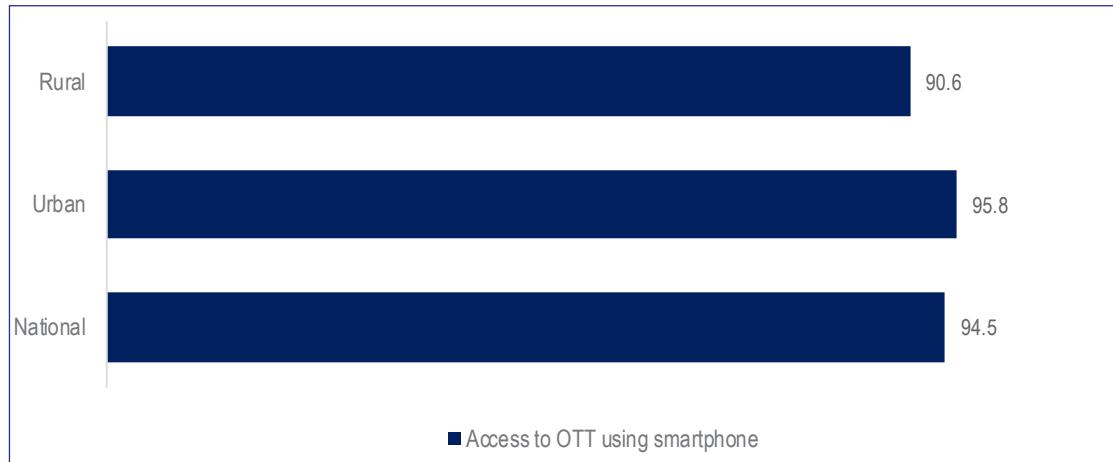
The age distribution of individuals with mobile phones that owned smartphones showed that the largest proportion of smartphone owners were between the age of 14 and 35 making up 60.0 percent of the population. The smallest proportion of smartphone owners were above the age of 55 and below the age of 15, cumulatively making up 8.0 percent of the total proportion of smartphone owners.

Figure 95: Proportion Mobile Phone Owners with a Smartphone by Age; 2022

4.2.2.6. Usage of Over-the-Top Applications on Smartphones

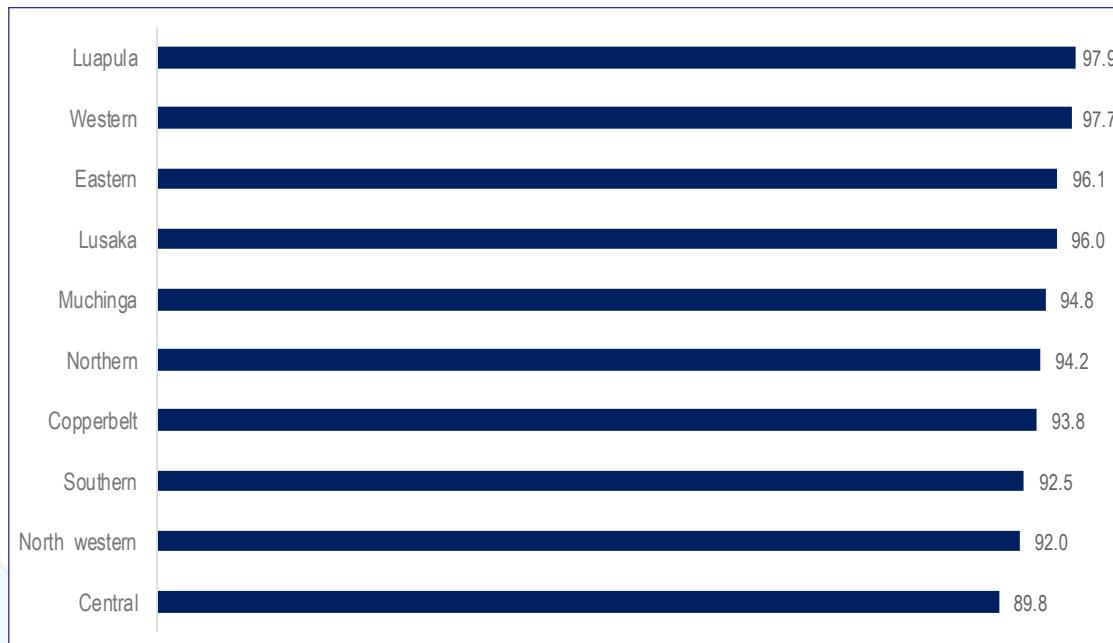
The use of Over-the-Top (OTT) applications such as WhatsApp, Facebook and YouTube was significantly high amongst individuals aged 10 years and older that owned a smartphone. At national level, 94.5 percent of individuals that owned a smartphone used it to access OTT applications. This value was relatively lower in rural areas where 90.6 percent of smartphone owners accessed OTTs and was 5.2 percentage points lower than the proportion of smartphone owners in urban areas that accessed OTT applications.

Figure 96: Access to OTTs Using a Smartphone: 2022



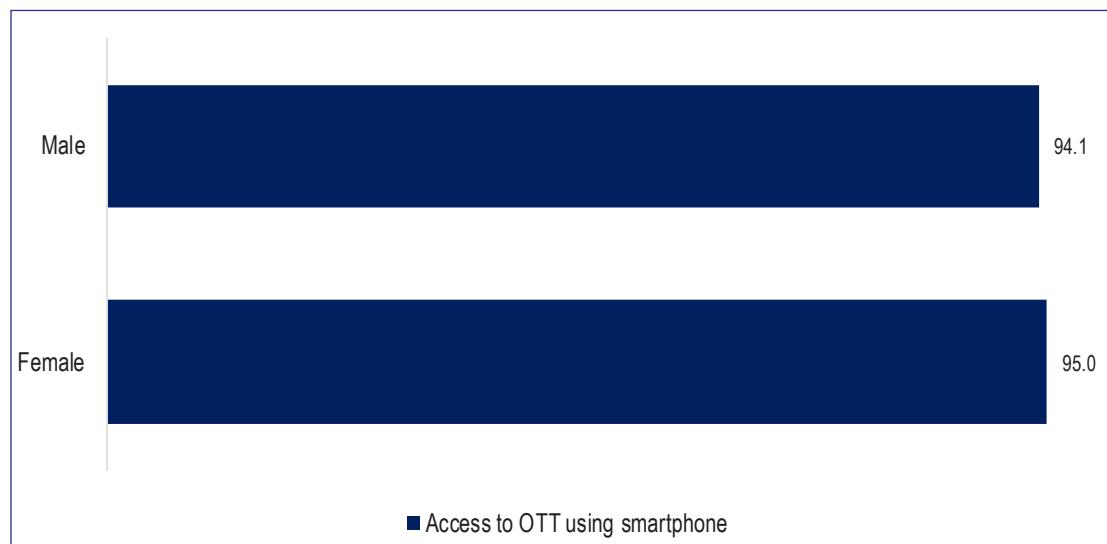
In Luapula Province, the population of individuals that own smartphones and access OTTs using their smartphones stood at 97.9 percent making it the province with the highest access to OTTs via this device. On the other hand, only 89.8 percent of respondents from Central Province indicated that they had access to OTT using smartphones representing the smallest proportion at provincial level.

Figure 97: Access to OTTs Using a Smartphone by Province: 2022



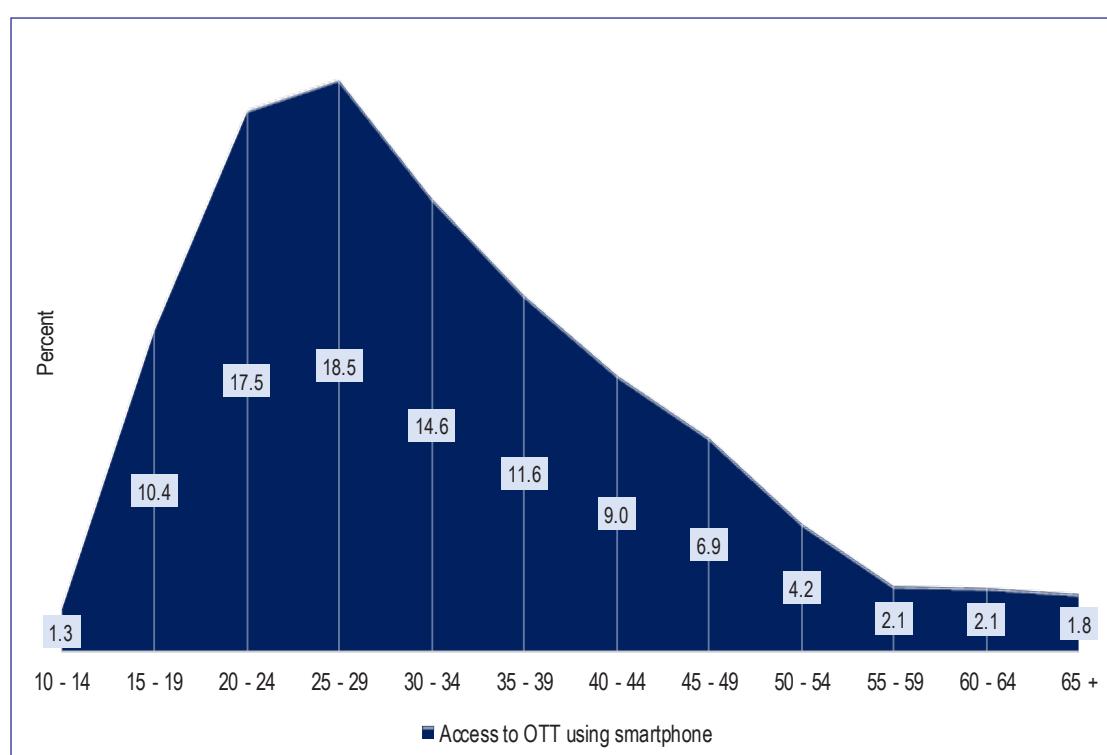
It was observed that there was a slightly higher proportion of females that were accessing OTTs using smartphones compared to the proportion of males that reported accessing OTTs using smartphones. It was noted that, 95.0 percent of females indicated that they were accessing OTTs using smartphones while 94.1 percent of males indicated accessing OTTs using smartphones.

Figure 98: Access to OTTs Using a Smartphone by Sex: 2022



Access to OTTs across the ages of smartphone owners showed that young people were predominant users of these applications. Notably, 61.0 percent of smartphone owners that accessed OTTs were aged between 14 and 35 years old. Correspondingly, access to OTTs was lower among senior citizens as those above the age of 60 made up 3.9 percent of the total users of OTTs.

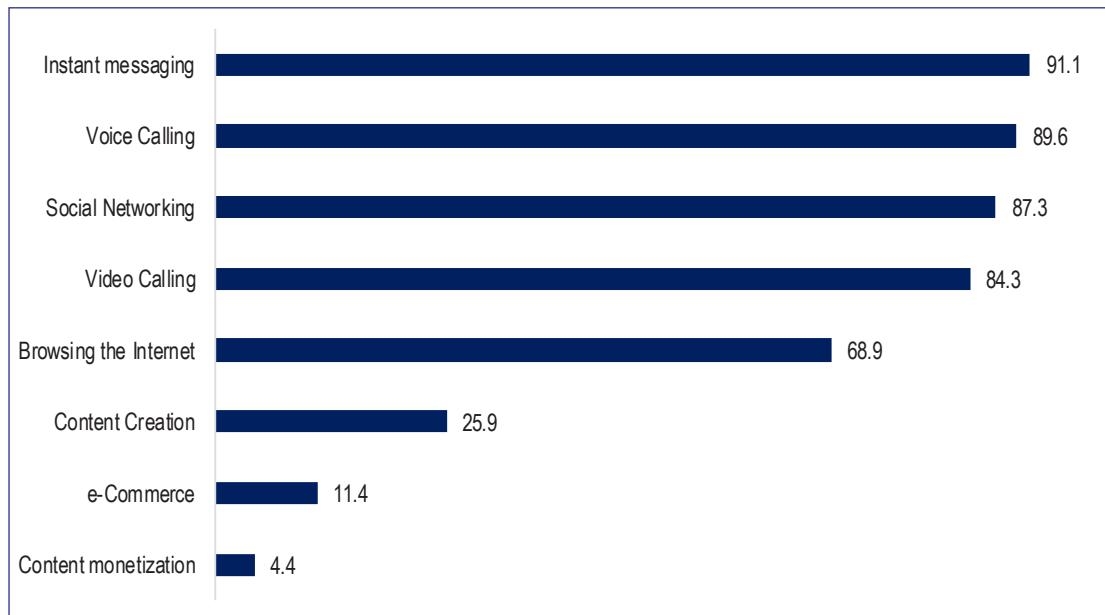
Figure 99: Access to OTTs Using a Smartphone by Age: 2022



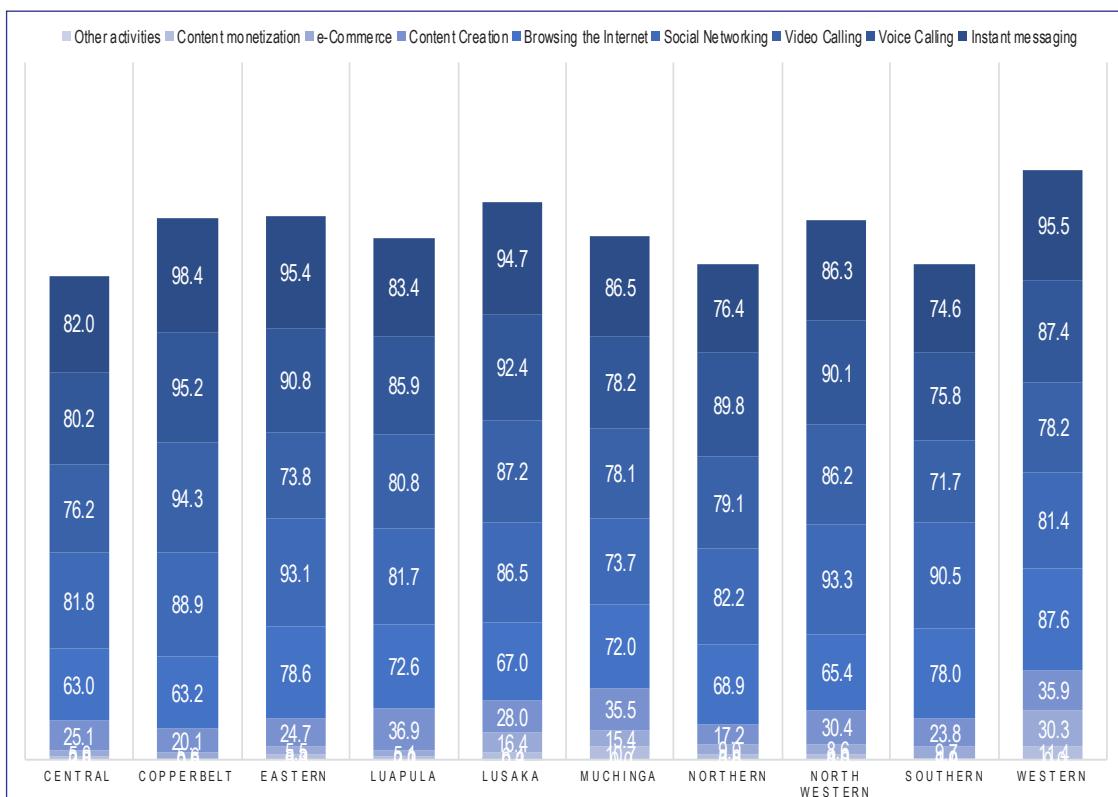
4.2.2.7. Main Activities Carried Out on Smartphones

The survey assessed some of the activities that individuals aged 10 years and above that own smartphones carry out on these devices. It was observed that most individuals (more than 80.0 percent) used their smartphone for instant messaging, voice calling, social networking and video calling. A relatively smaller proportion of smartphone owners also used their devices for activities such as content creation, content monetization as well as e-commerce.

Figure 100: Main Activities carried out on Smartphones: 2022

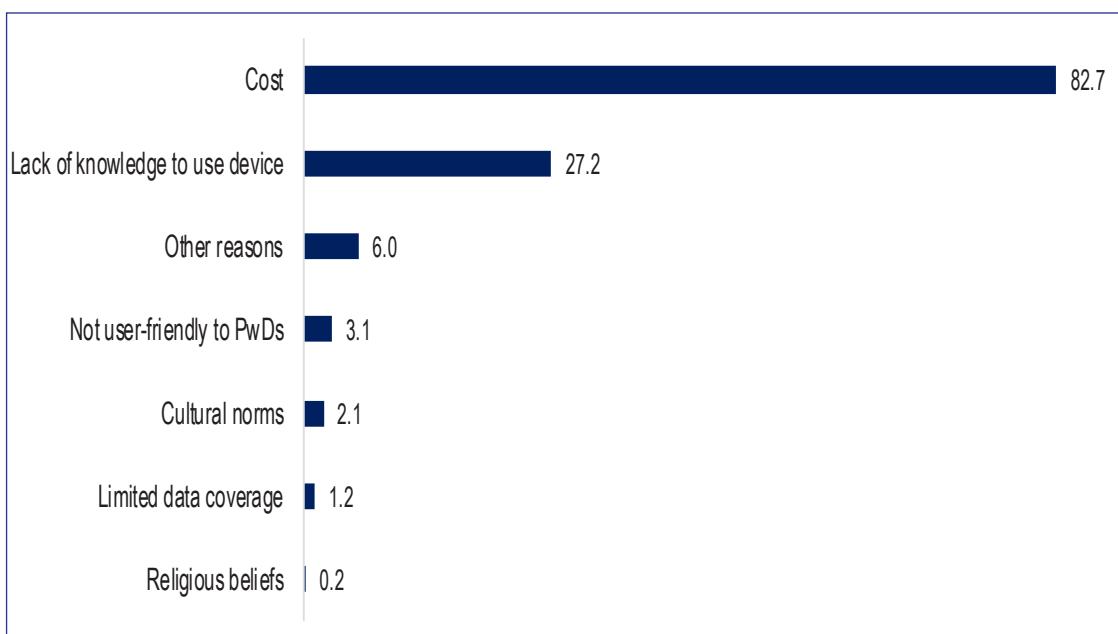


A provincial disaggregation showed that the activity most commonly carried out on smartphones was instant messaging in all provinces while one of the least common activities carried out was content monetization. The use of smartphones for instant messaging was more prevalent on the Copperbelt, Eastern, Lusaka and Western Province where more than 90.0 percent of smartphone owners in these areas used their devices for this purpose. On the contrary, the Copperbelt, Central, Luapula, North-Western Southern and Northern Provinces had a proportion of less than 5.0 percent of smartphone owners that used the device for content monetization.

Figure 101: Main Activities carried out on Smartphone by Province; 2022

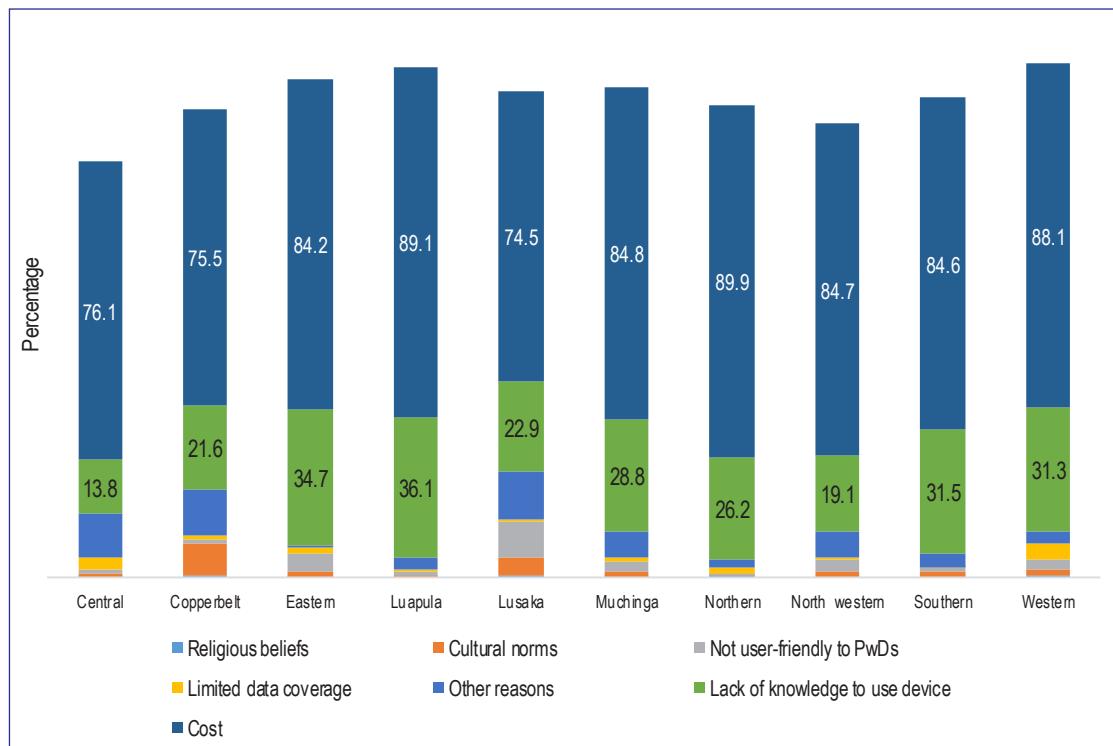
4.2.2.8. Barriers to Owning a Smartphone

A number of barriers to owning a smartphone were identified in the survey, key of which was the costs associated with purchasing and owning a smartphone. Specifically, 82.7 percent of individuals aged 10 years and older that did not own a smartphone attributed this state to the costs associated with owing a smartphone. The second most prevalent attribute was the lack of knowledge required to use a smartphone device, which was posited by 27.2 percent of individuals without a smartphone. A much smaller proportion of individuals without smartphones attributed their state to cultural norms, limited data/network coverage and religious beliefs.

Figure 102: Barriers to Owning a Smartphone; 2022

Individuals without smartphones in Northern Province had the highest proportion of individuals (89.9 percent) that attributed their state to the costs associated with owning a smartphone. Luapula Province had the highest proportion of individuals that attributed the lack of smartphones to lack of knowledge on the use of these devices.

Figure 103: Barriers to Owning a Smartphone per Province; 2022

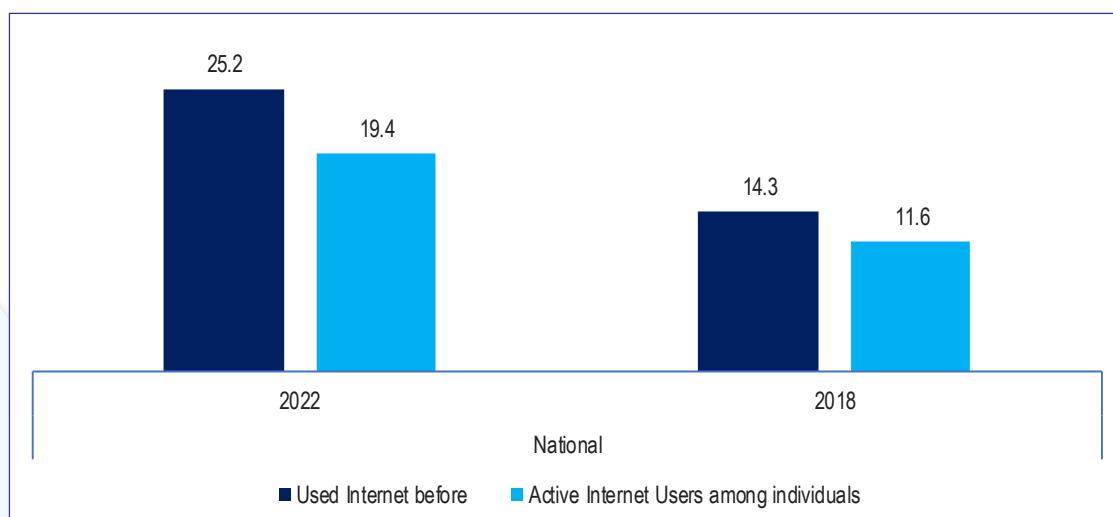


4.2.3. Access and Usage of Internet Services

4.2.3.1. Usage of Internet Services

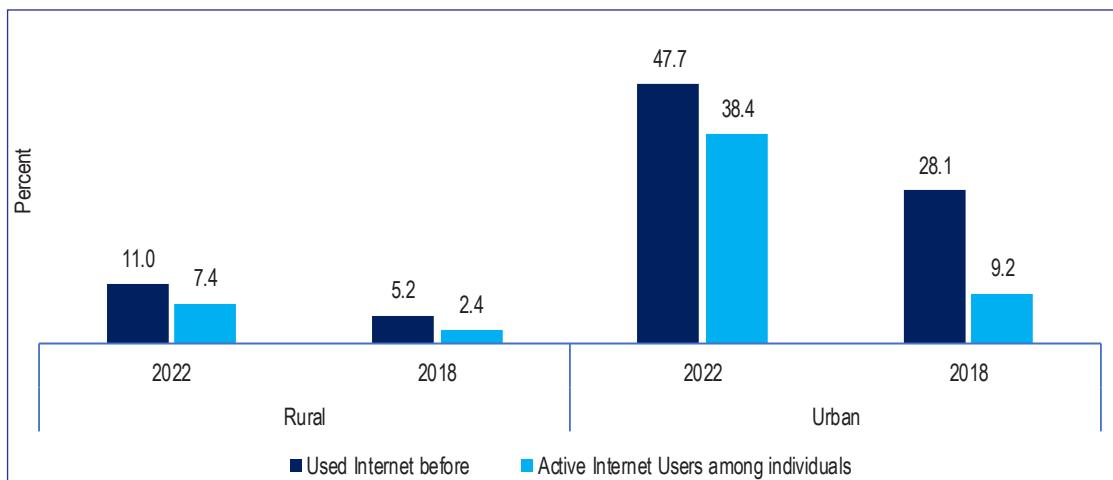
The survey established that 25.2 percent of individuals aged 10 years and older had used the internet at least once translating into a 10.9 percentage point increase from the proportion of individuals that had used the internet in 2018. On the other hand, the number of active internet users, measured as the number of people that had used the internet in the last three months prior to the survey, was estimated at 19.4 percent in 2022 relative to 11.6 percent recorded in 2018 representing an increase of 7.8 percentage points over the review period.

Figure 104: Internet Usage by Individuals 2018 - 2022



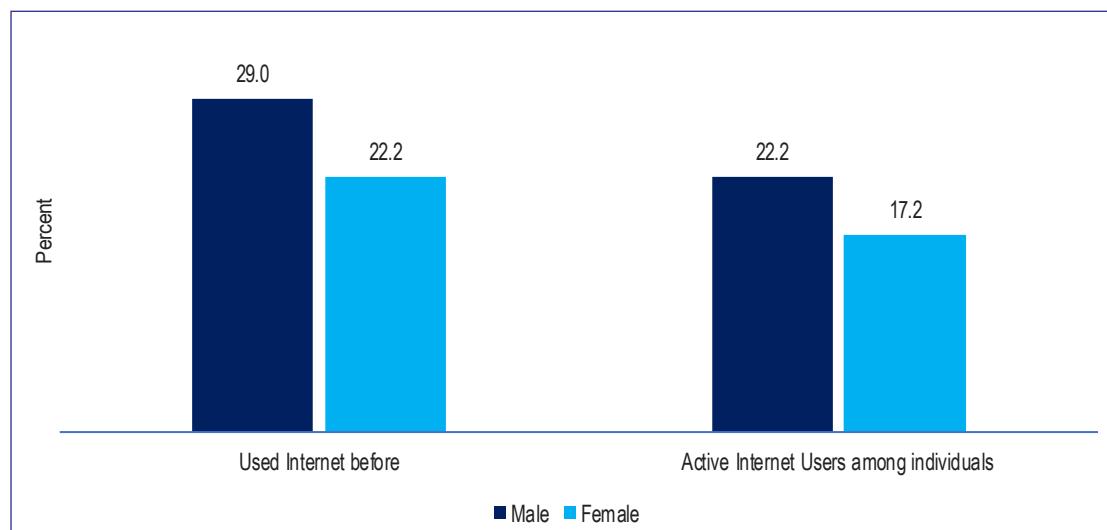
The survey indicated that the proportion of those in rural areas that had used the internet before was lower than the proportion of individuals in urban areas that had used the internet before. It was noted that the proportion of individuals that had used the internet before in rural areas increased from 5.2 percent in 2018 to 11.0 percent in 2022 whilst in urban areas, the proportion increased from 28.1 percent 47.7 percent. Similarly, the proportion of individuals that were active users of the internet in rural areas increased from 2.4 percent to 7.4 percent over the review period whilst that of urban areas increased from 9.2 percent to 38.4 percent.

Figure 105: Internet Usage among Individuals by Region 2018 - 2022



The proportion of individuals aged 10 years and older that had used the internet before was relatively higher amongst males than females. Specifically, the proportion of males that had used the internet before was 29.0 percent whilst the proportion of females was 22.2 percent translating into a gender disparity of 6.8 percentage points. Similarly, the proportion of active internet users among males was higher than the proportion of female active internet users with a gender disparity of 5.0 percentage points.

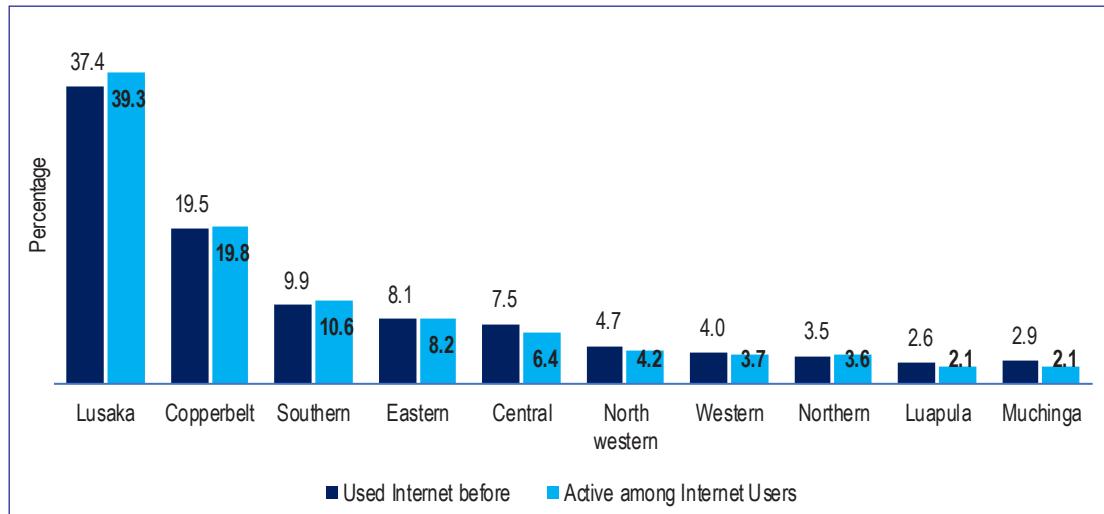
Figure 106: Internet Usage by Sex 2022



Lusaka and Copperbelt Provinces had the highest proportion of individuals that had used the internet before representing 37.4 percent and 19.5 percent of the total individuals that had used the internet before respectively. In contrast, Luapula and Muchinga Provinces had the lowest proportion of individuals that were active internet users representing 2.6 percent and 2.9 percent of the total individuals that had used

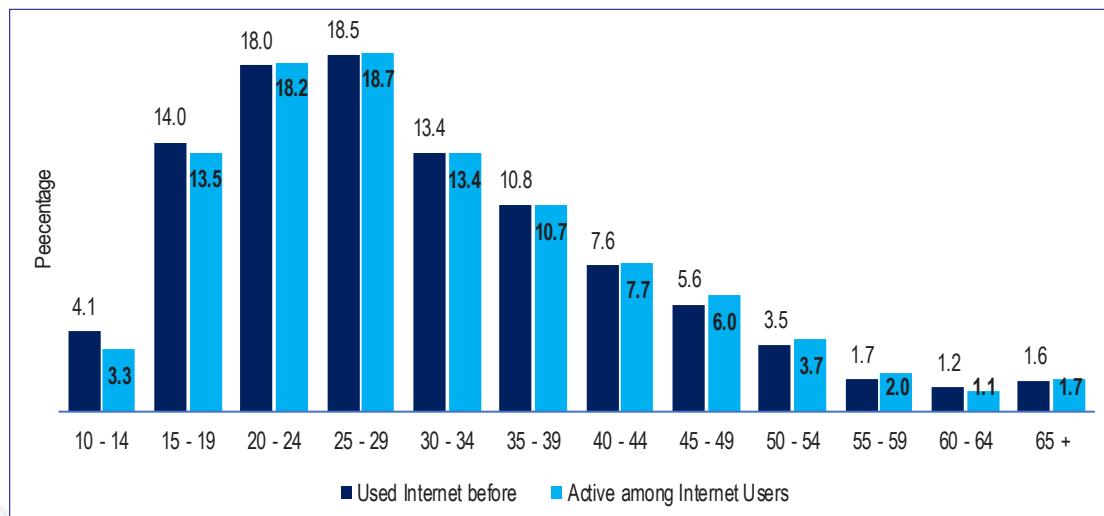
the internet before respectively. In addition, a similar trend was also observed in terms of active internet usage among the provinces where most active internet users were based in Lusaka while the least number of active users were based in Luapula and Muchinga.

Figure 107: Internet Usage by Province 2022



The bulk of internet users was noted to be among the youth ranging from the age of 15 to 34 years old. This age group accounted for more than 60.0 percent of individuals that had used the internet before as well as those that were active internet users. Senior citizens, individuals above the age of 60 years, accounted for less than 5.0 percent of both active internet users and those that had used the internet before. It was also observed that there were few discrepancies between the proportion of individuals that had used the internet before and the proportion of active internet users amongst individuals between 14 and 35 years of age. On the other hand, there were more active internet users than the individuals that had used the internet before amongst individuals above the age of 40.

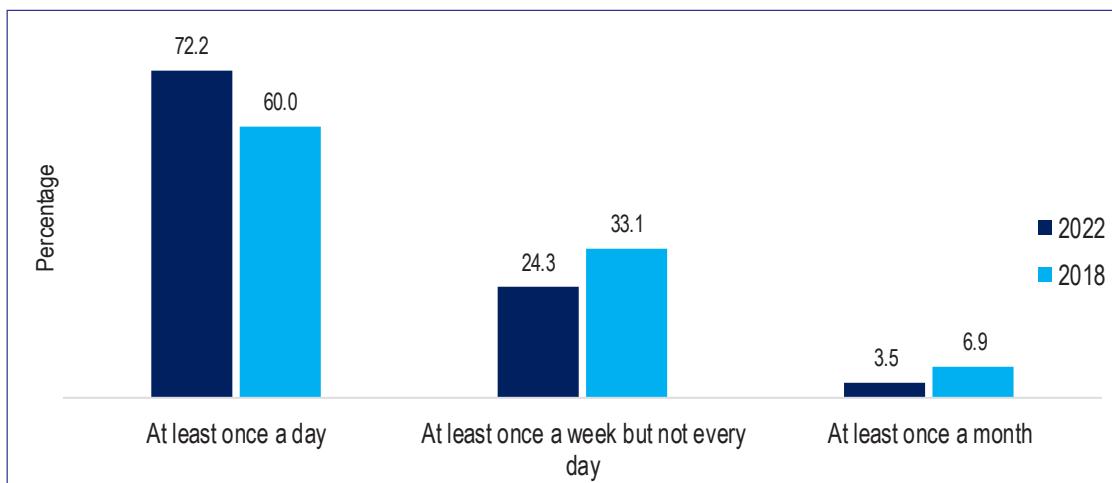
Figure 108: Internet Usage by Age Group 2022



4.2.3.2. Intensity of Internet Usage

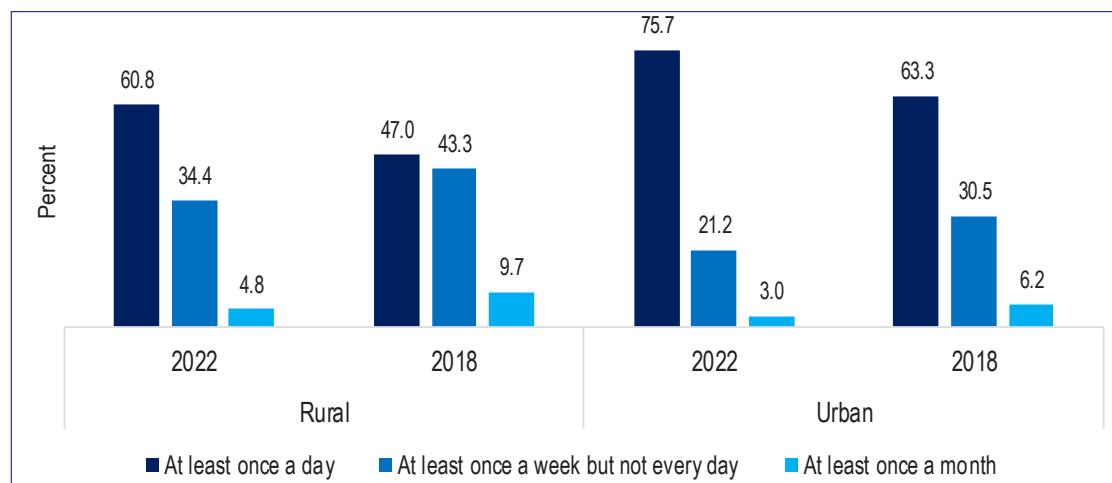
An analysis of the frequency of internet use amongst internet users showed that the bulk of users accessed the internet at least once a day. Specifically, 72.2 percent of internet users used the internet at least once a day, while the smallest proportion, about 3.5 percent of internet users used this service at least once a month. The intensity of internet usage was observed to have increased between 2018 and 2022 as the proportion of internet users accessing the service at least once a week fell from 33.1 percent in 2018 to 24.3 percent in 2022 while those that accessed it at least once a day increased from 60.0 percent to 72.2 percent.

Figure 109: Intensity of Internet Usage; 2018 - 2022



The majority of internet users based in both rural and urban areas accessed the service at least once a day. It was noted that 60.8 percent of internet users based in rural areas accessed the internet at least once a day while 75.7 percent of internet users in urban areas accessed the internet with this level of regularity. This was a slight improvement from 2018 where it was noted that 47.0 percent of internet users based in the rural areas accessed the internet at least once a day representing an increase of 13.8 percentage points while urban areas recorded an increase of 12.4 percentage points. Correspondingly, the proportion of internet users accessing the service at least once a month fell in both rural and urban areas over the review period.

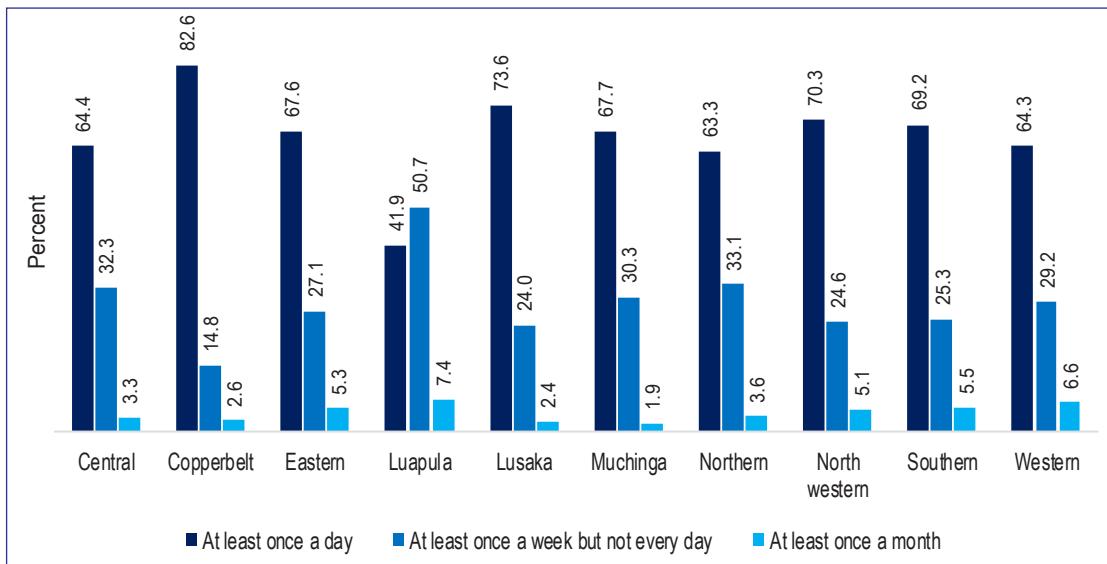
Figure 110: Intensity of Internet Usage by Region 2018 - 2022



At provincial level, majority of internet users accessed the service at least once a day. The proportion of internet users accessing this service regularly was highest on the Copperbelt Province with 82.6 percent of internet users accessing the service at least once a day. Luapula Province had most of its internet users accessing the service at

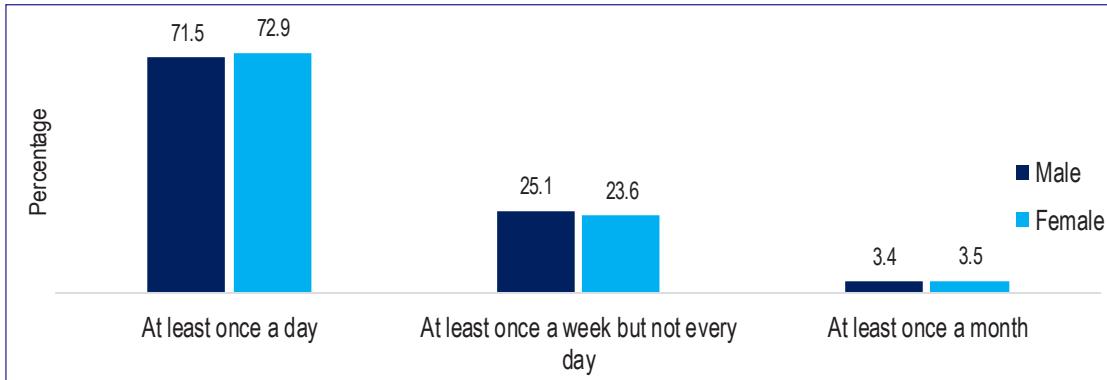
least once a week and correspondingly had the highest proportion of internet users accessing the internet at least once a week and at least once a month.

Figure 111: Intensity of Internet Usage by Province 2022

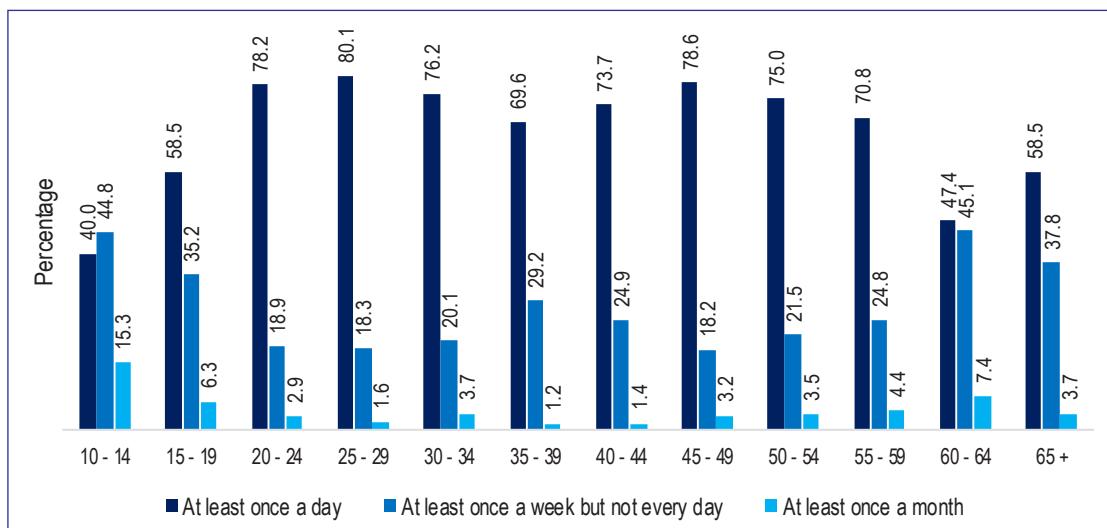


There was a minimal distinction between the frequency of internet use among males and females. Particularly, the proportion of males accessing the internet at least once a day was 71.5 percent while that of females was 72.9 representing a variation of 1.4 percent points. Correspondingly, the proportion of male internet users that accessed the service at least once a week was marginally higher than that of female internet users.

Figure 112: Intensity of Internet Usage by Sex; 2022

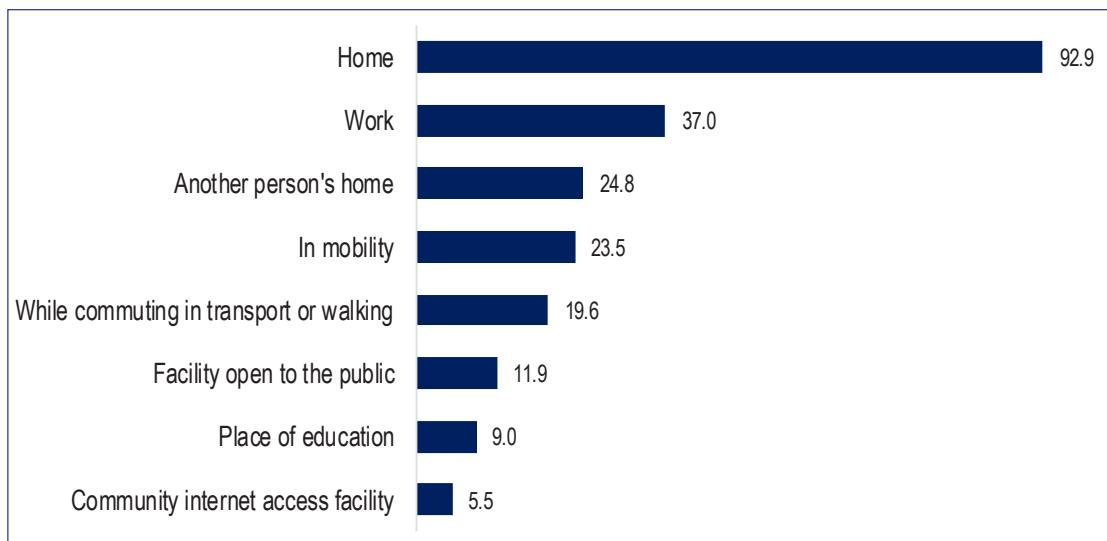


Age distribution of internet usage showed that internet users in the ages of 20 to 34 and 40 to 59 had more than 70.0 percent of its internet users accessing the service at least once a day. Internet users below the age 20 had at least 30.0 percent of users accessing the internet at least once a week while those above 60 years also had a large proportion of internet users accessing the service at least once a day.

Figure 113: Intensity of Internet Usage by Age 2022

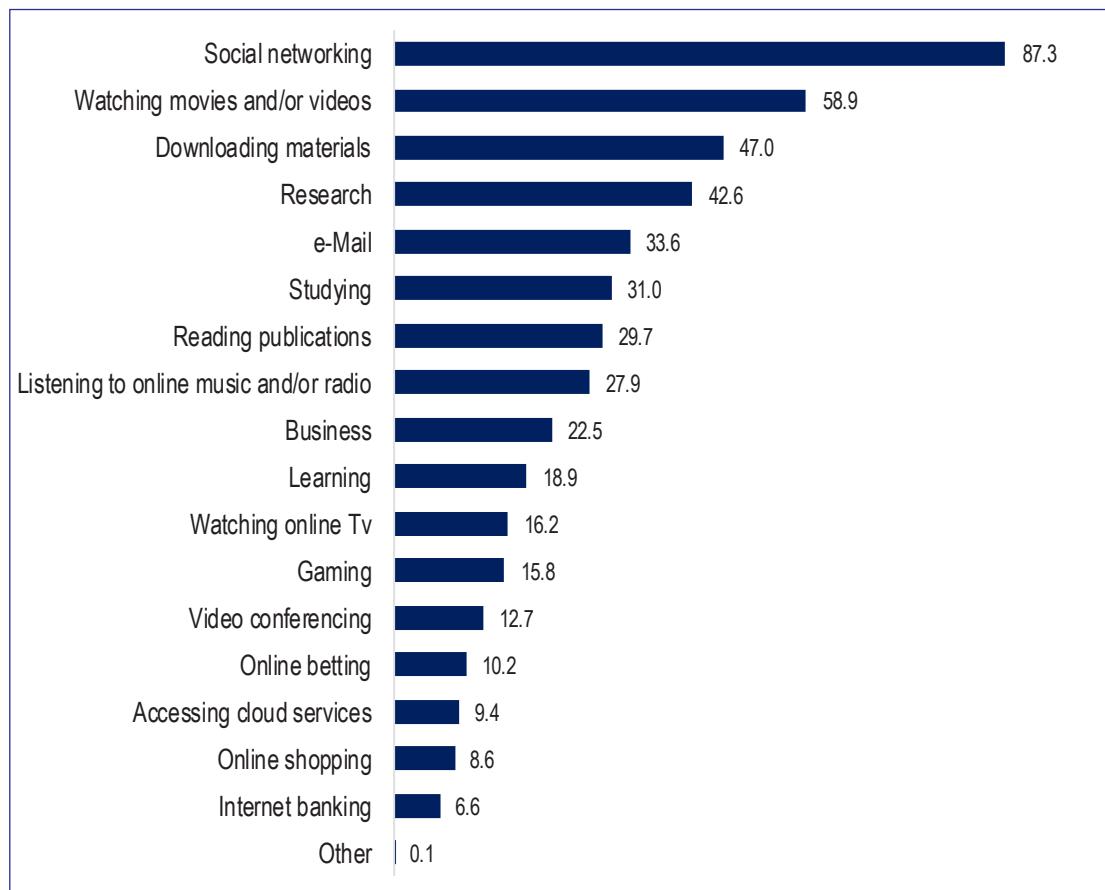
4.2.3.3. Location at which Internet is Accessed

Most of the internet users accessed the internet at home representing at least 92.9 percent of the total number of internet users. A significant proportion, 37.0 percent of internet users accessed the service at work while 24.8 percent of internet users also accessed the internet at another person's home. A much smaller proportion of internet users accessed the service at a place of education or a community internet access facility representing 9.0 percent and 5.5 percent of internet users respectively.

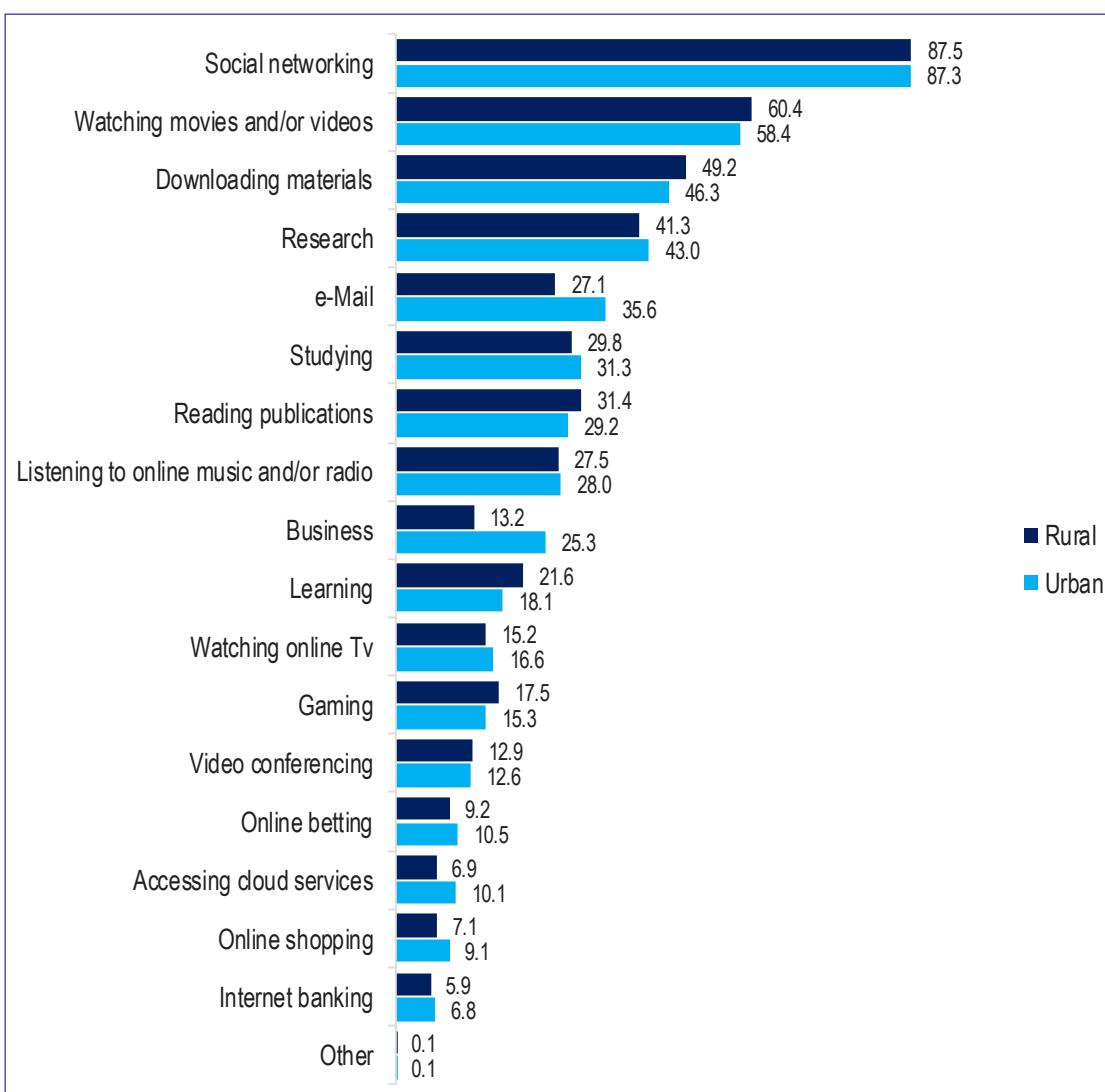
Figure 114: Location at which Internet is Accessed; 2022

4.2.3.4. Activities Undertaken on the Internet

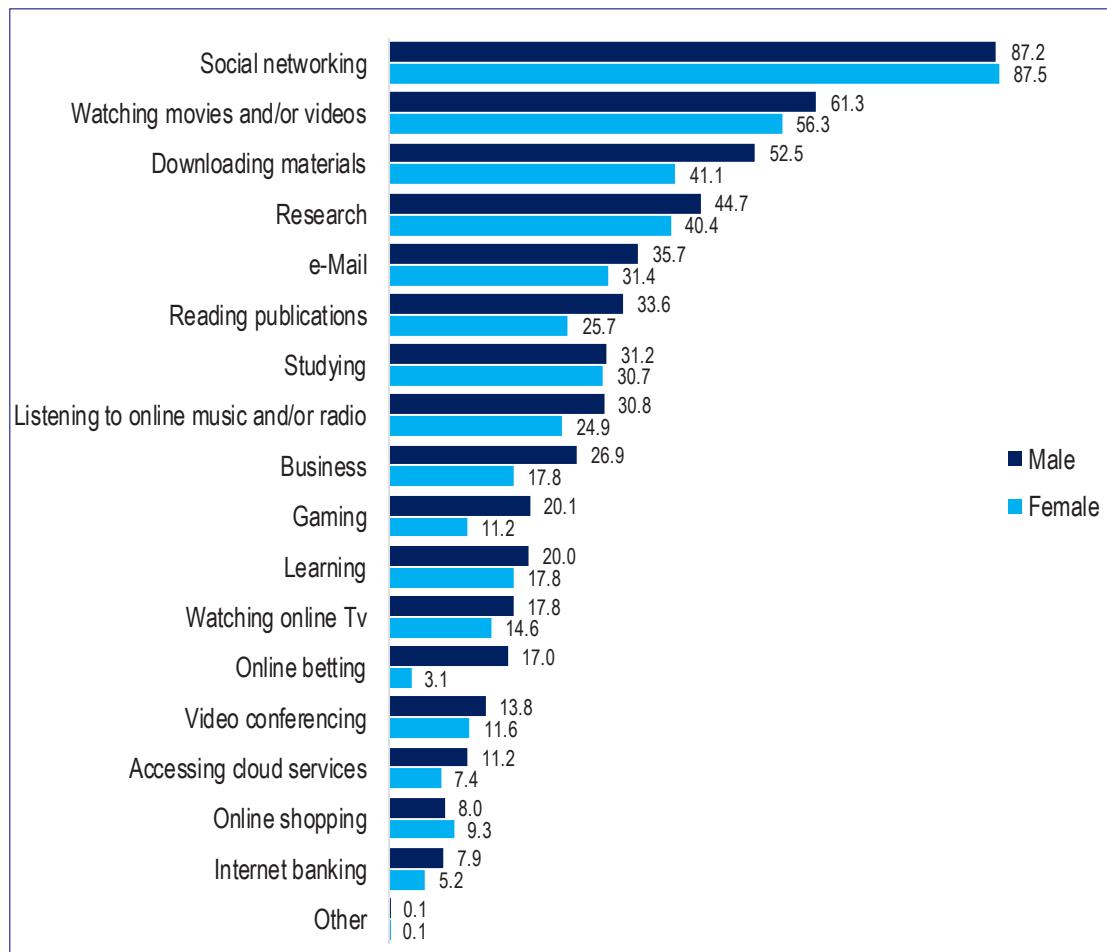
The survey revealed that individuals using the internet carried out a number of activities on this platform. The most prominent activity carried out on the internet was social networking, undertaken by at least 87.3 percent of internet users in the country. Watching movies and/or videos was a relatively common activity amongst internet users as it was carried out by 58.9 percent of internet users. Other activities such as accessing cloud services, online shopping and internet banking was less common as it was carried out by less than 10.0 percent of individuals aged 10 years and older that were using the internet.

Figure 115: Activities Undertaken Online; 2022

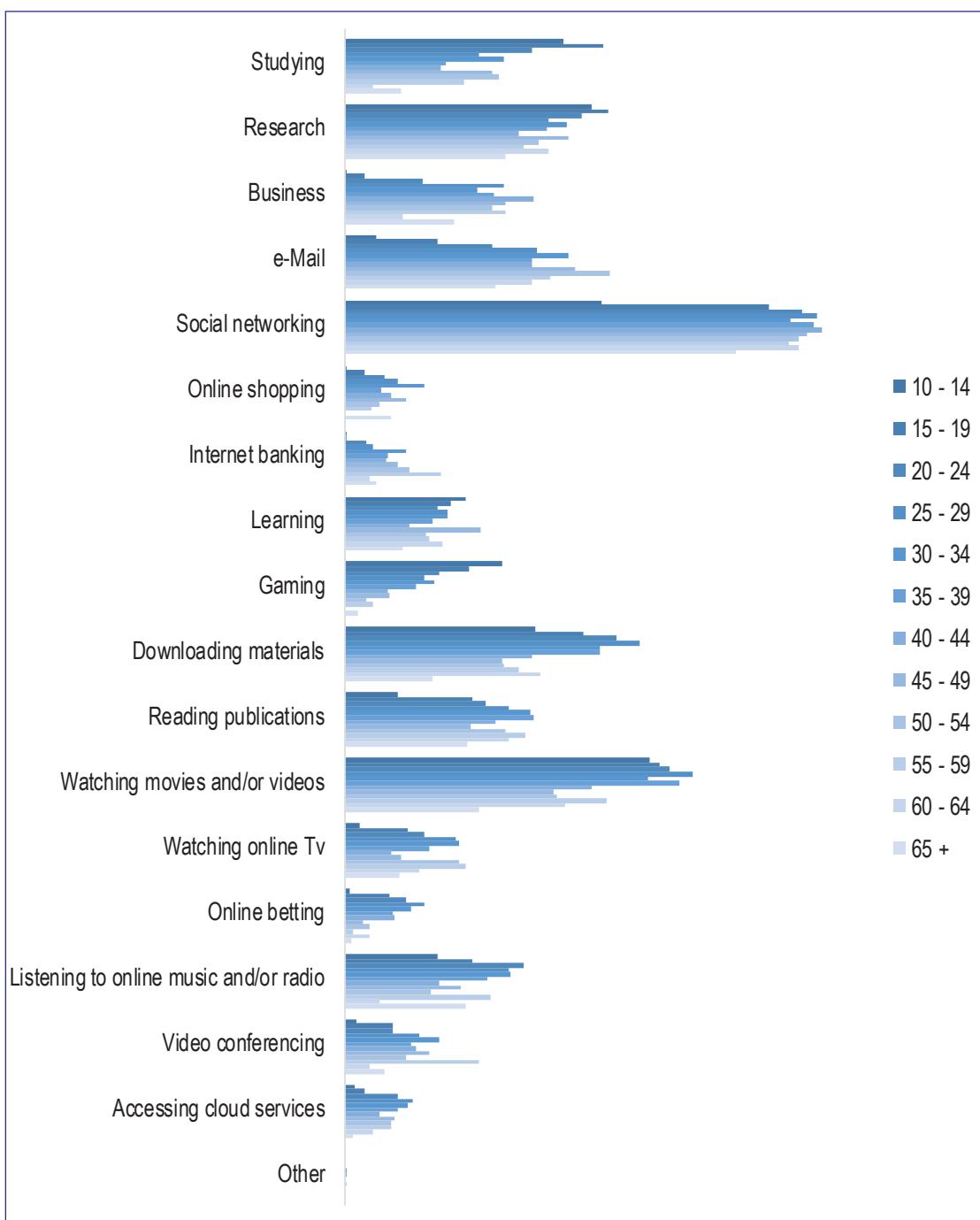
A review of the activities undertaken by internet users in rural and urban areas showed minimal disparities amongst activities such as social networking, listening to online music and/or radio, watching online TV, video conferencing and internet banking. It was noted that the proportion of internet users that were using emails, conducting research, doing business, betting online, accessing cloud services and conducting online shopping were greater among internet users based in urban areas than those in rural areas. On the other hand, there was a higher proportion of internet users in rural areas that were watching movies and/or videos, downloading materials, reading publications, learning and gaming.

Figure 116: Activities Undertaken Online by Region 2022

The majority of internet users, both female and male, used the internet platform for social networking. There were minimal disparities between the proportion of male internet users and that of females that used the internet for studying and video conferencing. Notably, there were significantly more male internet users than females that used the internet for watching movies and/or videos, downloading materials, research, emails, reading publications, listening to music and/or radio, business, gaming, watching online TV, online betting, accessing cloud services and internet banking.

Figure 117: Activities Undertaken Online by Sex 2022

A number of online activities were observed to be more dominant amongst younger internet users such as studying, researching, learning, gaming, downloading materials, watching movies and/or videos as well as listening to online music and/or radio. Other activities such as social networking, internet banking, online shopping, reading publications and video conferencing were more evenly distributed amongst the different age groups.

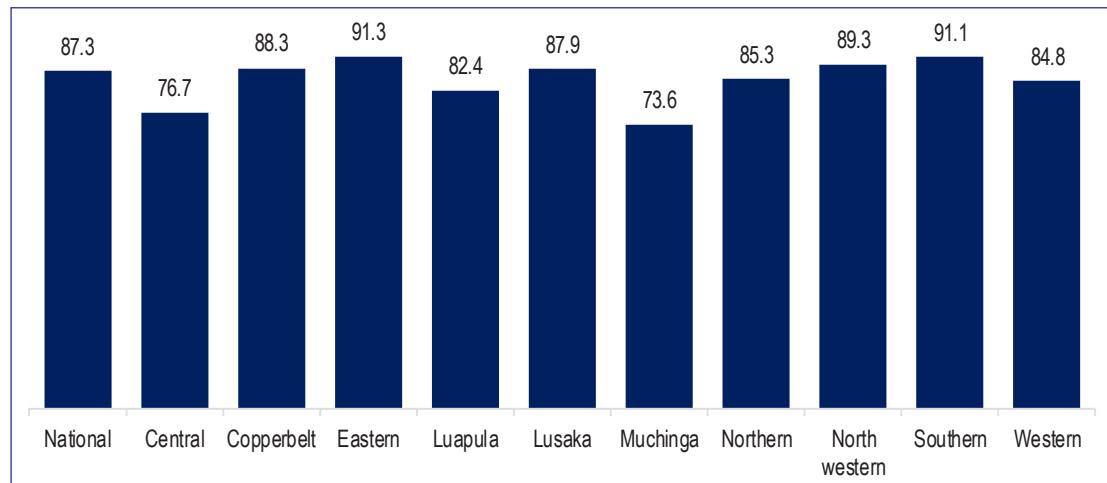
Figure 118: Activities Undertaken Online by Age; 2022

4.2.3.5. Social Media Usage

An in-depth look into social networking revealed that 87.3 percent of internet users aged 10 years and older in the country were using social media. The disparity between social media usage among internet users in rural areas and those in urban areas was marginal as it was estimated at 0.2 percentage points suggesting a similar proportion of social network users in both regions.

Figure 119: Social Media Usage by Region 2022

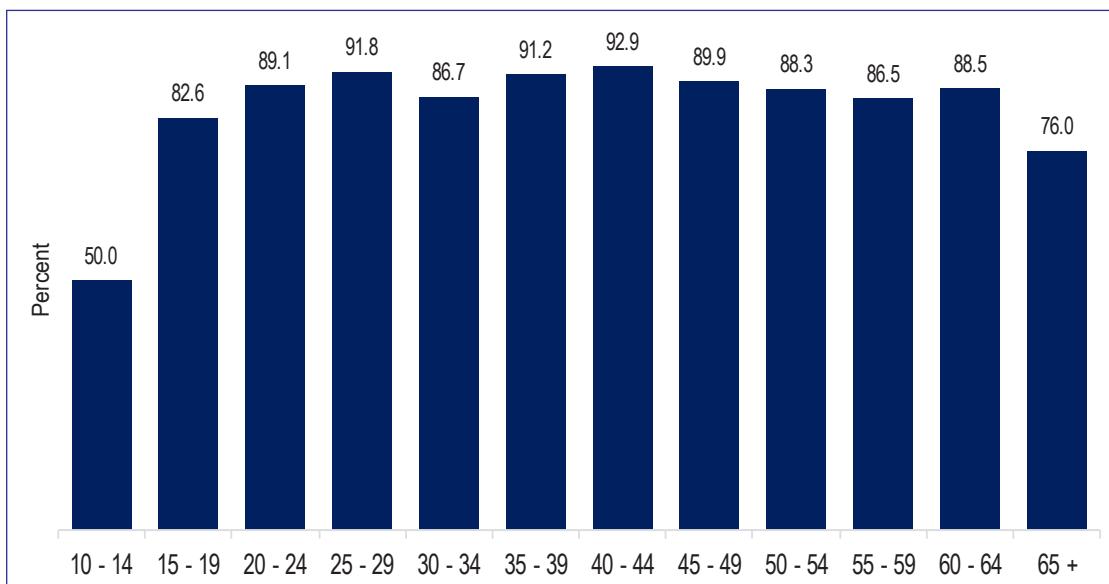
The highest proportion of social media users was observed in Eastern Province where 91.3 percent of internet users were on social media platforms. Similarly, more than 90.0 percent of internet users were undertaking social networking activities in Southern Province. The lowest proportion of social media usage was observed in Muchinga Province where 73.6 percent of internet users accessed these platforms.

Figure 120: Social Media Usage by Province; 2022

Further review of social networking in the country established that there were more social media users amongst females than males. Specifically, 87.2 percent of male internet users were using social media whilst 87.5 percent of female internet users used the platform translating into a disparity of 0.3 percentage points.

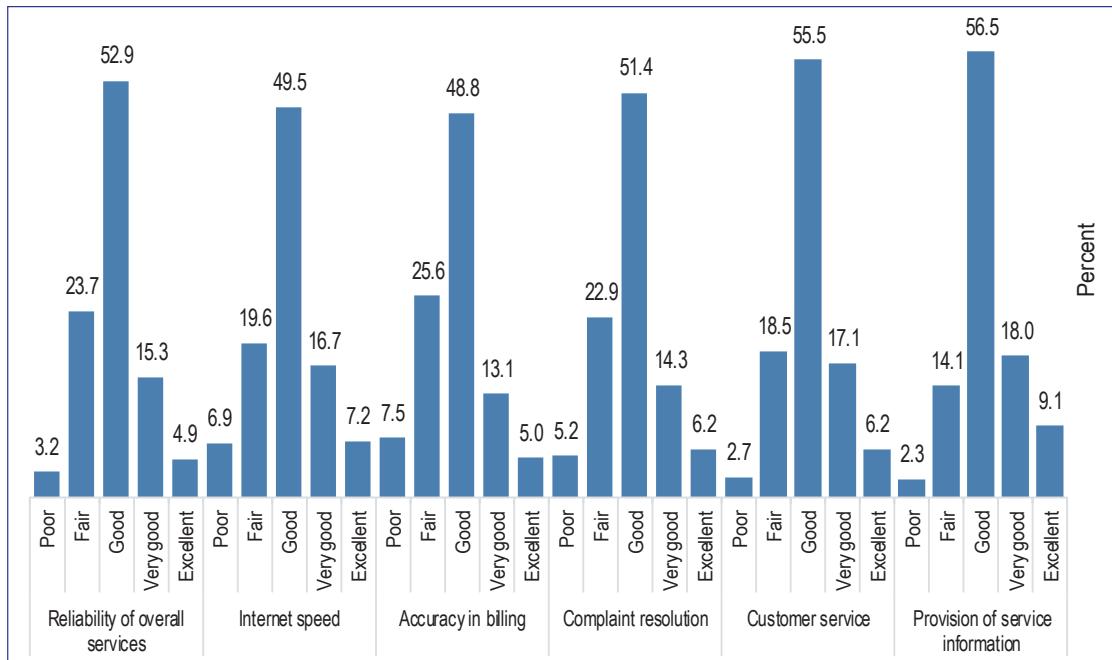
Figure 121: Social Media Usage by Sex; 2022

Internet users in the age group of 40 to 44 years were observed to have the highest proportion of social media users as 92.9 percent of internet users in this age group were using social media platforms. Similarly, internet usage among users in the 25 to 29 and 35 to 39 age groups had at least 90.0 percent of internet users accessing social media platforms. The proportion of internet users using social media platforms was lowest for those between 10 to 14 years old as 50.0 percent of internet users in this age group used social media.

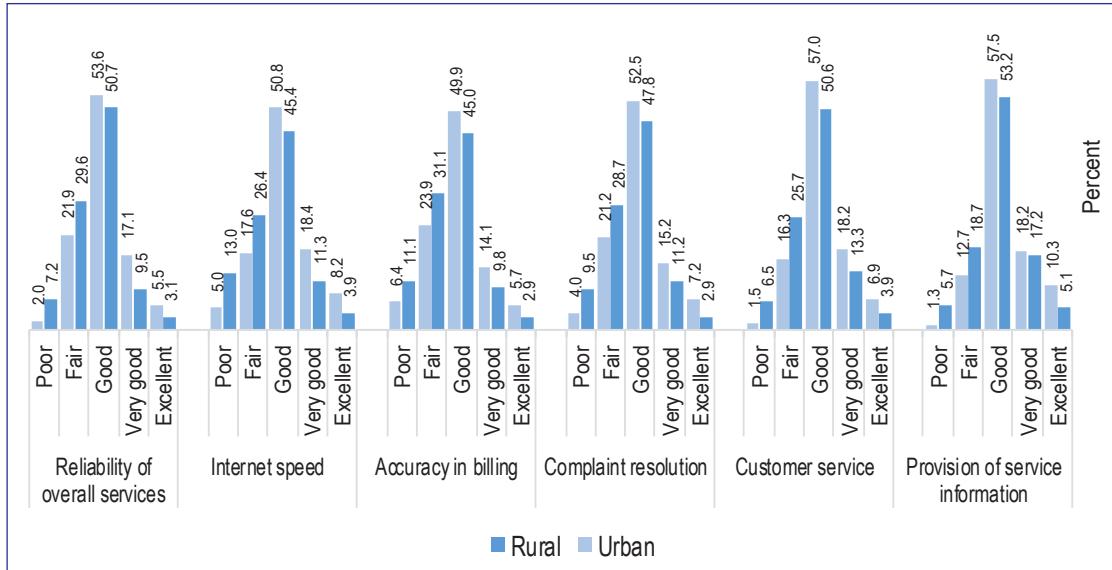
Figure 122: Social Media Usage by Age; 2022

4.2.3.6. Quality of Experience - Internet Services

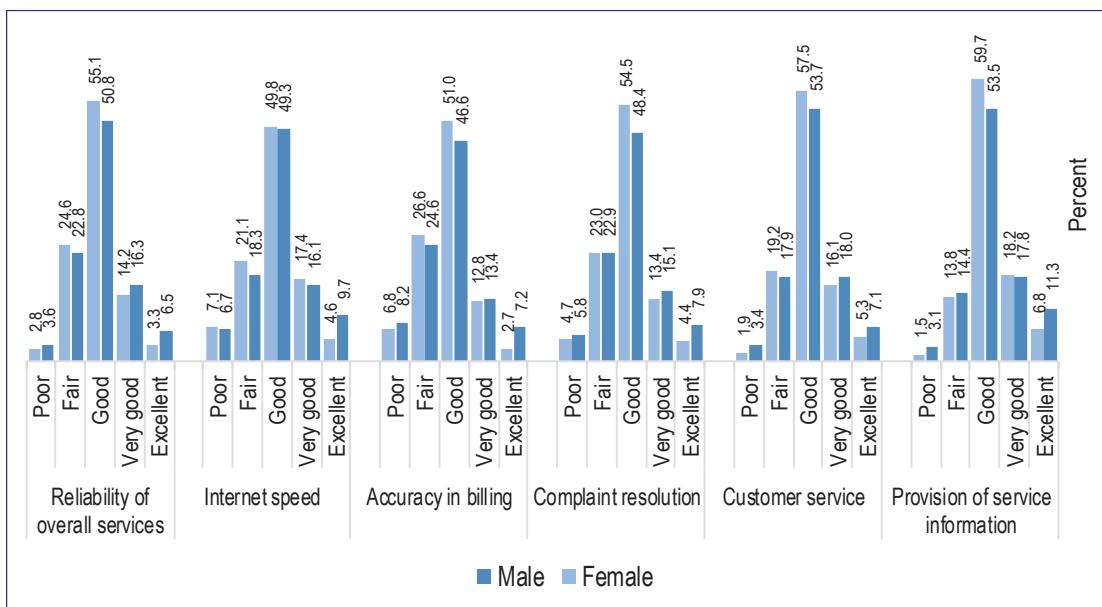
A review of the quality of internet services experienced by internet users showed that most users felt that all the included internet service parameters comprising internet speed, reliability of internet service, accuracy in billing, complaint resolution, customer service and provision of information were good. Specifically, more than 50.0 percent of internet users rated reliability of internet services, complaint resolution, customer service and provision of service information as good. Most internet users rated provision of service information as either good, very good or excellent. On the other hand, accuracy in billing was rated as poor or fair by more than 30.0 percent of internet users.

Figure 123: Quality of Experience for Internet Services; 2022

It was observed that more internet users in the urban areas rated all the parameters of internet quality as either good, very good or excellent than internet users in rural areas. Consequently, there were more internet users in the rural areas that rated all the internet quality parameters as either fair or poor.

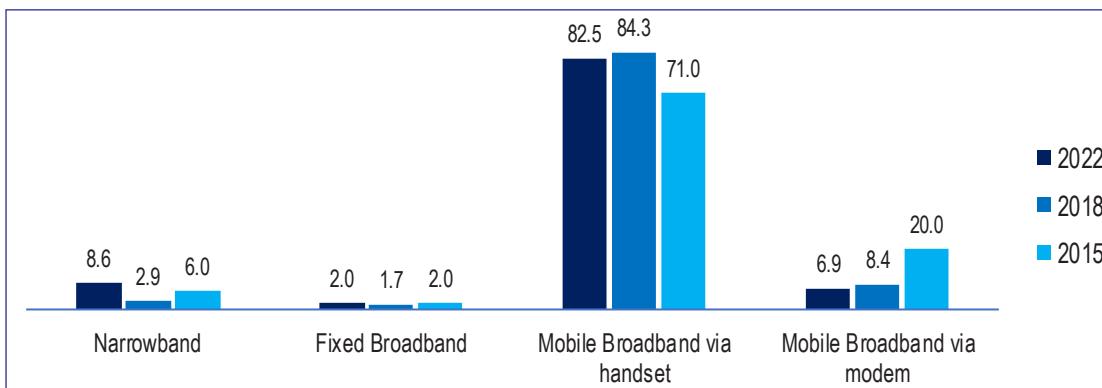
Figure 124: Quality of Experience for Internet Services by Region; 2022

Generally, the proportion of female internet users that rated internet quality parameters as good exceeded those of male internet users. On the other hand, it was observed that a larger proportion of male internet users rated most of the internet quality parameters i.e. provision of service information, reliability of internet services and internet speed as either very good or excellent while a relatively larger proportion of female internet users rated these parameters as either fair or poor.

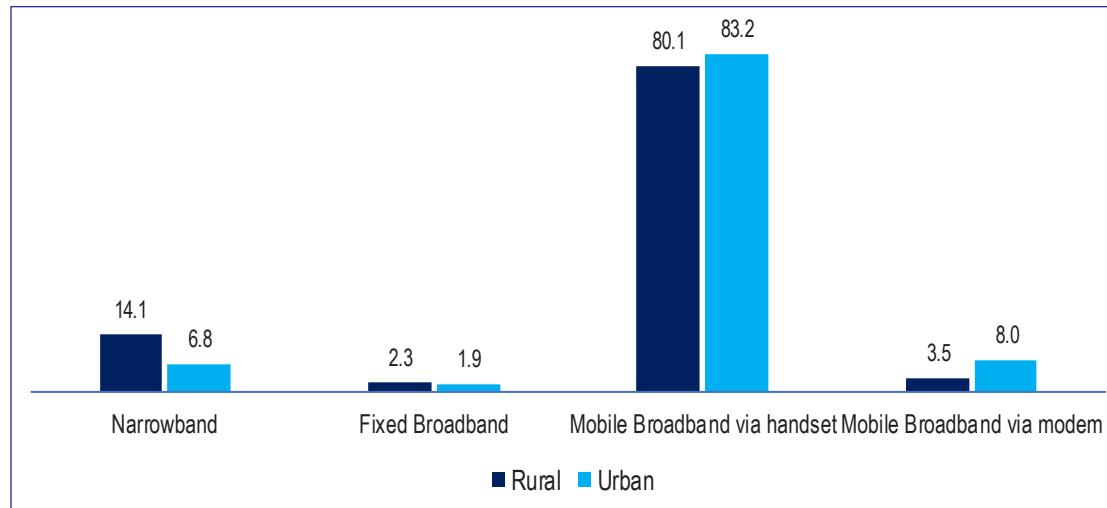
Figure 125: Quality of Experience for Internet by Sex 2022

4.2.3.7. Types of Internet Accessed by Individuals

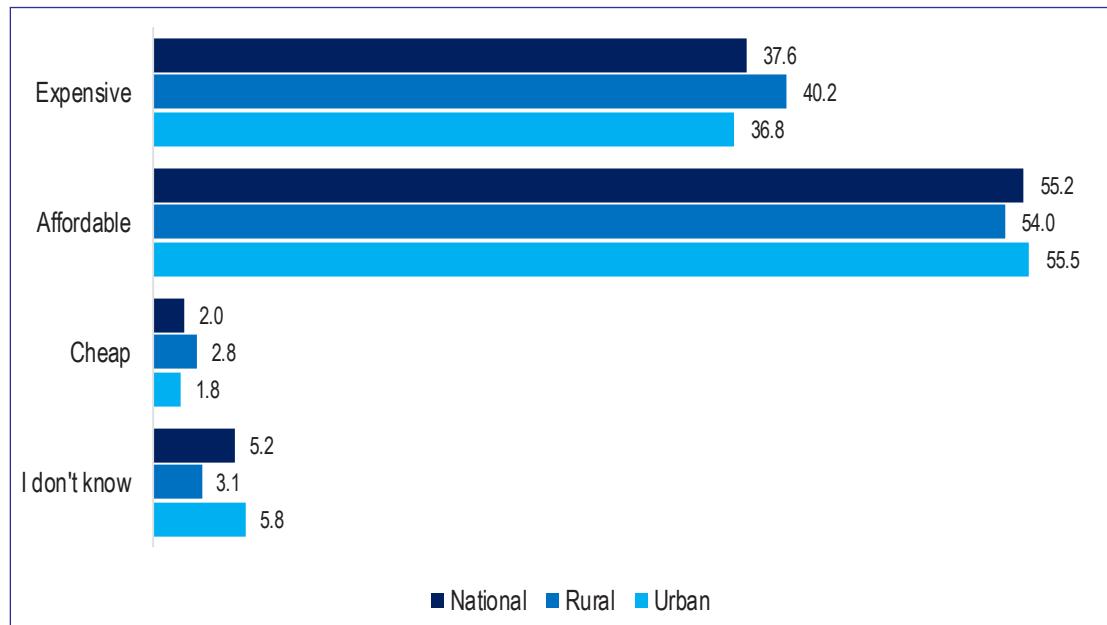
The extensive use of mobile broadband via a mobile cellular telephone as a means of accessing the internet was retained in 2022 as in 2018 and 2015. Specifically, the proportion of individuals using mobile broadband through a handset to access internet services was 82.5 percent, marginally lower than the proportion of internet users utilizing this mode in 2018. Similarly, the proportion of individuals using the internet that accessed the service using mobile broadband through a modem declined in 2022 from 8.4 percent in 2018 to 6.9 percent. With regards to the use of narrowband and fixed broadband, there was a slight increase in the proportion of internet users accessing the internet through these modes over the review period.

Figure 126: Types of Internet Accessed by Individuals 2015 - 2022

The majority of internet users in both rural areas and urban areas accessed the service using mobile broadband through a mobile cellular phone in 2022. Specifically, 80.1 percent of internet users in rural areas accessed the internet through mobile broadband via a mobile cellular phone while 83.2 percent of users in urban areas accessed the internet through the same mode representing a disparity of 2.1 percentage points. The proportion of users of narrowband for internet services were more prevalent in rural areas estimated at 14.1 percent relative to 6.8 percent in urban areas. Similarly, there was a higher proportion of internet users in rural areas accessing fixed broadband services than that of internet users in urban areas.

Figure 127: Type of Internet by Region; 2022**4.2.3.8. Affordability of Internet Services**

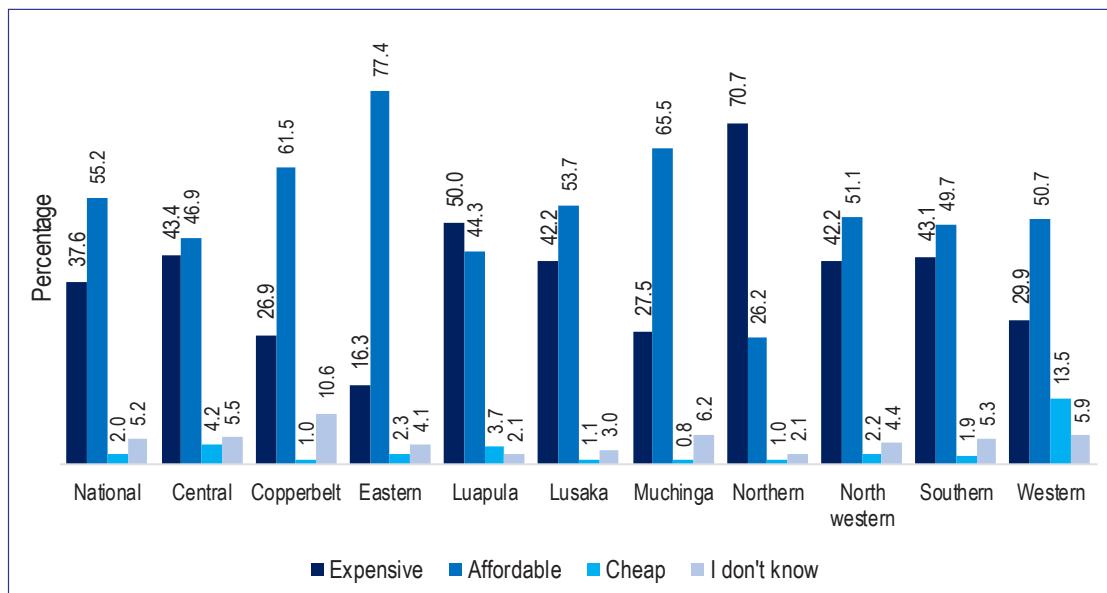
The survey established that most internet users were of the opinion that internet services were affordable. At national level, 55.2 percent of individuals using the internet rated the service as affordable while 37.6 percent rated internet service as expensive. The proportion of internet users in urban areas that were of the view that internet services were affordable was relatively larger than the proportion of internet users in rural areas whilst the proportion of internet users in urban areas that rated the services as expensive were relatively lower than the proportion of internet users in rural areas. Similarly, the proportion of internet users in urban areas that rated internet services as cheap was greater than the proportion of internet users in rural areas.

Figure 128: Affordability of Internet Services by Region 2022

A review of the perception of internet affordability at provincial level showed that the majority of internet users in most of the provinces were of the view that internet services were affordable. Eastern Province was observed to have the highest proportion of internet users that rated the services as affordable. It was also noted that the Copperbelt Province had the largest proportion of internet users that rated internet

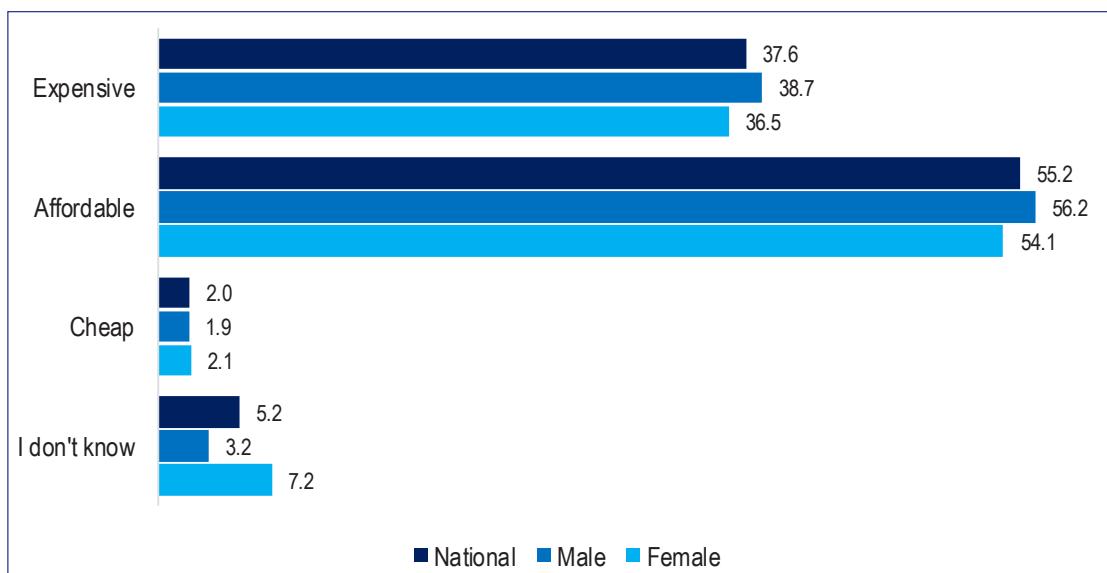
services as cheap. On the other hand, Luapula and Northern Province had most of their internet users rate internet services as expensive.

Figure 129: Affordability of Internet Service by Province 2022

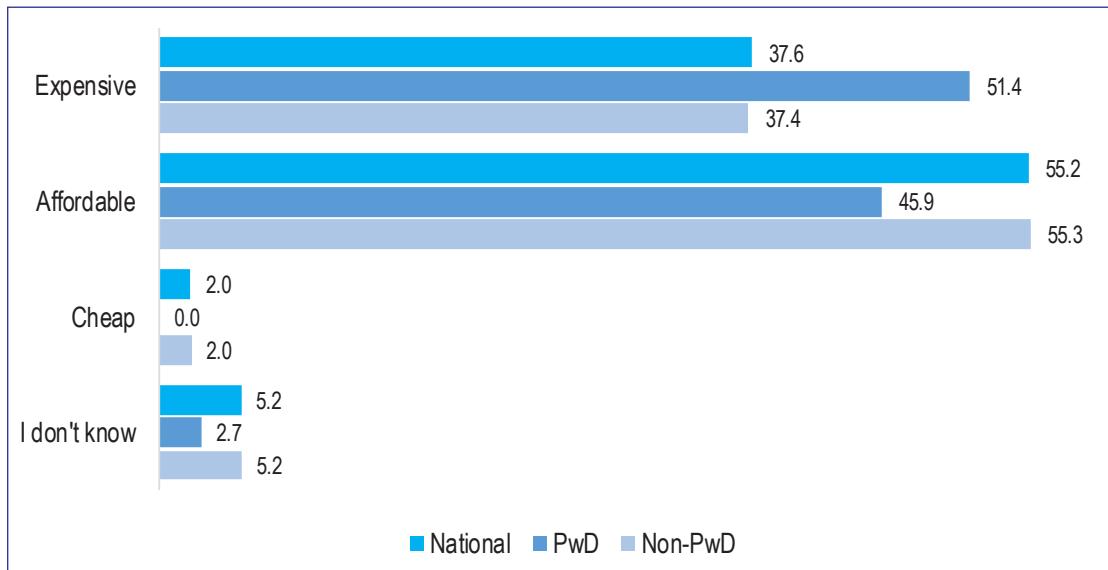


The proportion of male internet users that rated internet services as affordable exceeded the proportion of females that gave an affordable rating representing a disparity of 2.1 percentage points. Similarly, the proportion of males that rated internet services as expensive was greater than the proportion of female internet users that gave a rating of expensive translating into a disparity of 2.2 percent points.

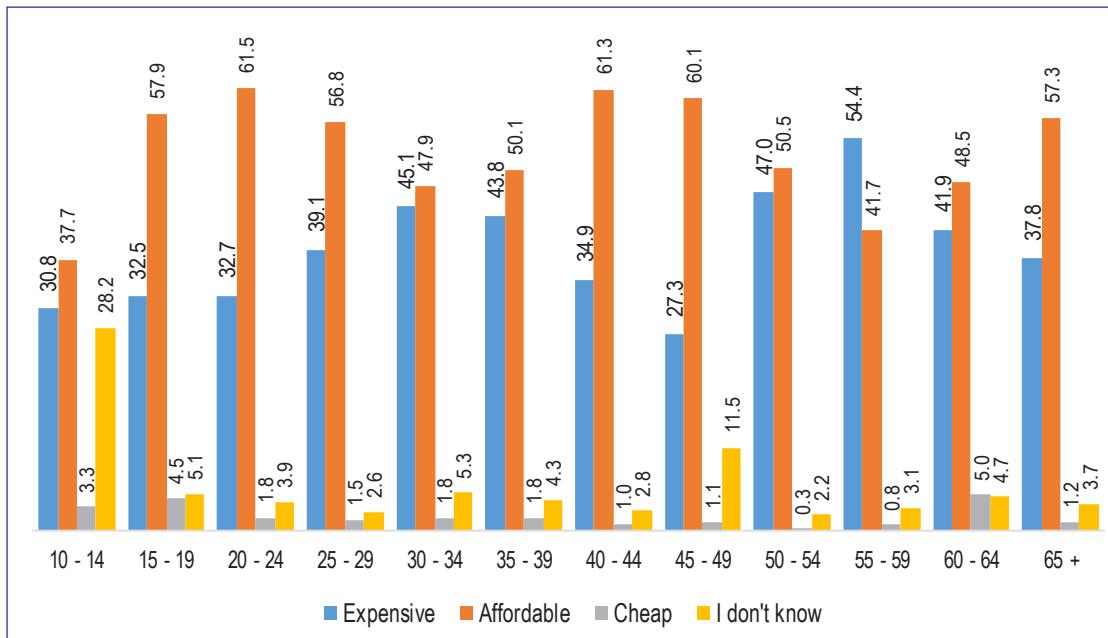
Figure 130: Affordability of Internet Services by Sex 2022



A review of affordability of internet services amongst Persons with Disabilities (PWDs) showed that a larger proportion of internet users with disabilities, about 51.4 percent, rated internet services as expensive while a smaller proportion of about 45.9 percent were of the view that the services were expensive. Relative to able bodied internet users, it was observed that the proportion of internet users with disabilities that rated internet services as expensive was significantly larger than the proportion of able bodied internet users that gave this rating translating into a disparity of 14 percentage points.

Figure 131: Affordability of Internet Services by Disability Status; 2022

The distribution of internet affordability by age showed that most age groups rated internet services as affordable with the exception of those between the ages of 55 to 59, majority of whom rated internet services as expensive. More than 60.0 percent of internet users in the 20 to 24 age group as well as 40 to 49 rated internet services as affordable. Similarly, the largest proportion of internet users that rated the service as cheap were aged between 9 and 15 years.

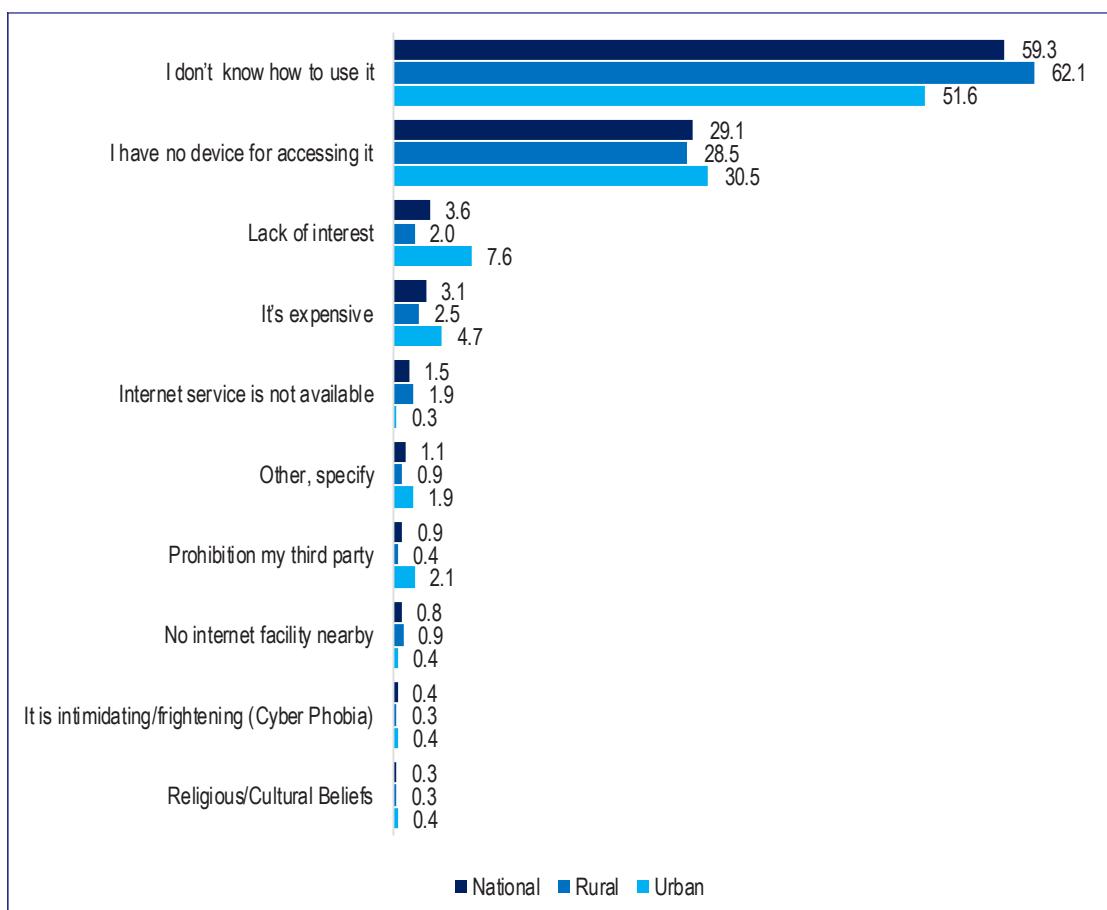
Figure 132: Affordability of Internet Services by Age 2022

4.2.3.9. Barriers to Internet Usage

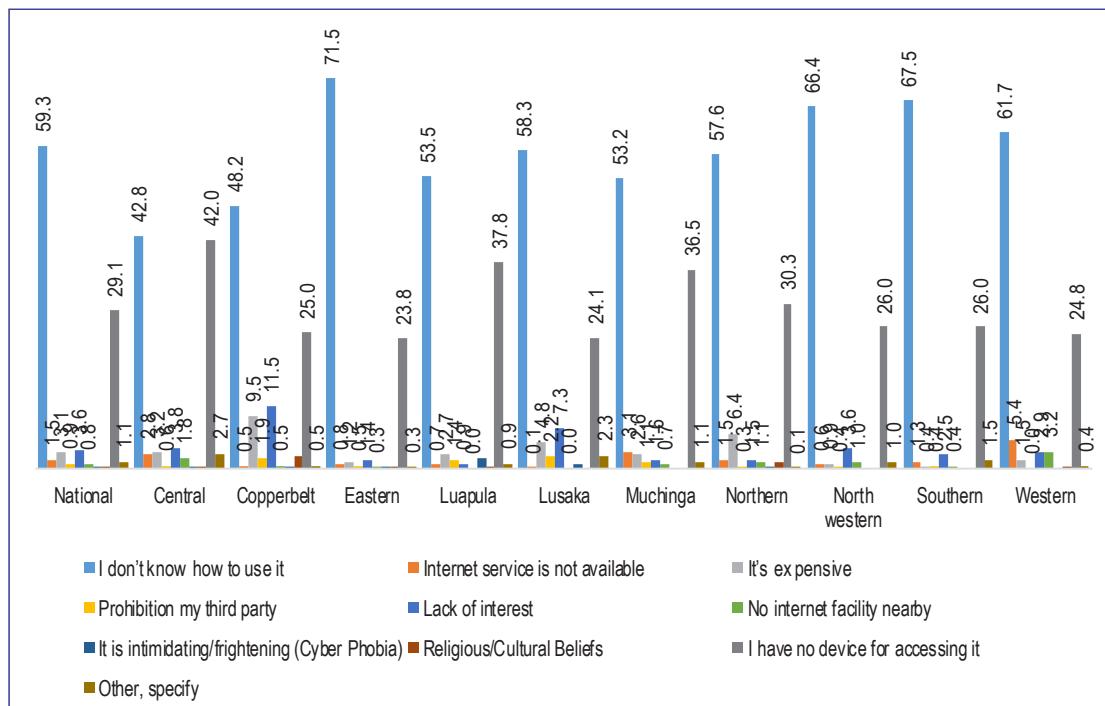
The survey showed that most individuals that had not used the internet attributed this to not having learnt how to use the internet as well as the lack of a device for accessing the internet. Particularly, 59.3 percent of individuals aged 10 years and older that did not use the internet attributed this to not knowing how to use the platform whilst 29.1 percent attributed this to not having a device for accessing the internet. It was observed that there was a larger proportion of individuals based in rural areas that had not used the internet that attributed this to not knowing how to use the internet

while a larger proportion of individuals in urban areas that had not used the internet attributed this to the lack of a device for accessing the internet. A much smaller proportion of individuals attributed not having used the internet to unavailability of internet services. However, this proportion was much higher amongst individuals in rural areas than individuals in urban areas representing a marginal difference of 1.6 percent points.

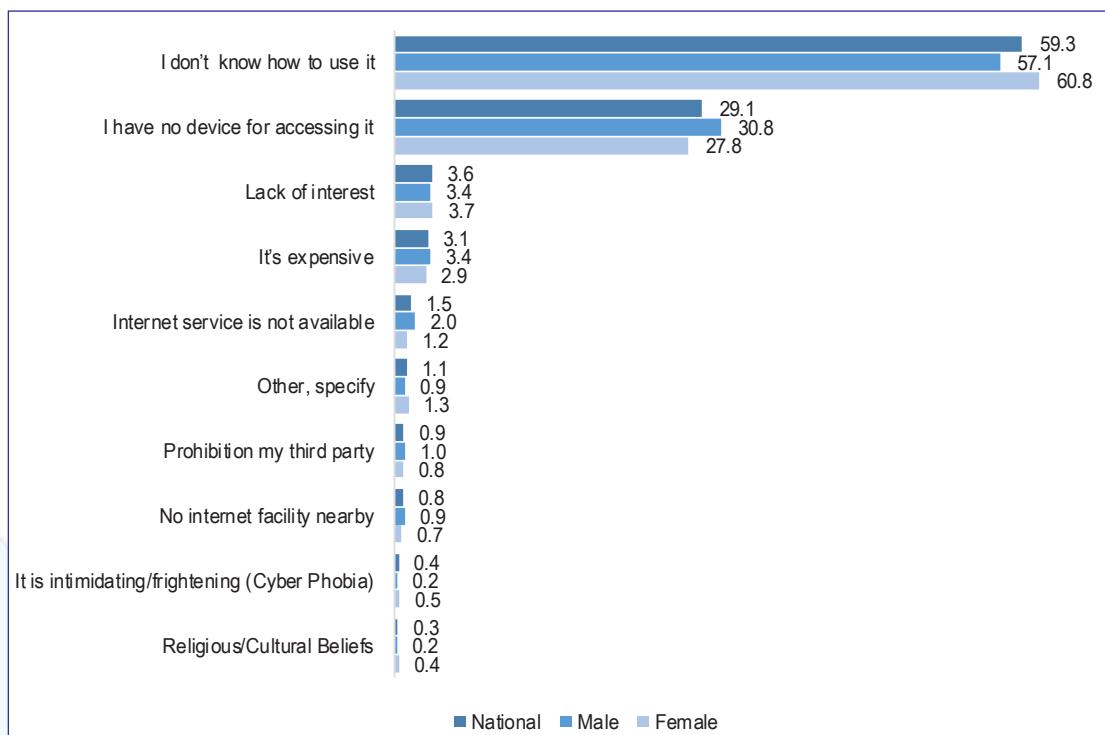
Figure 133: Barriers to Using the Internet by Region 2022



A provincial analysis showed that the bulk of individuals that had not used the internet in all the provinces attributed this to not knowing how to use the service. This was particularly prevalent in Eastern Province where over 70.0 percent of individuals aged 10 years and above that had not used the internet attributed this to not being able to use the internet. The highest proportion of individuals that attributed not having used the internet to lack of an appropriate device were observed in Central Province representing about 42.8 percent of individuals that did not use the internet.

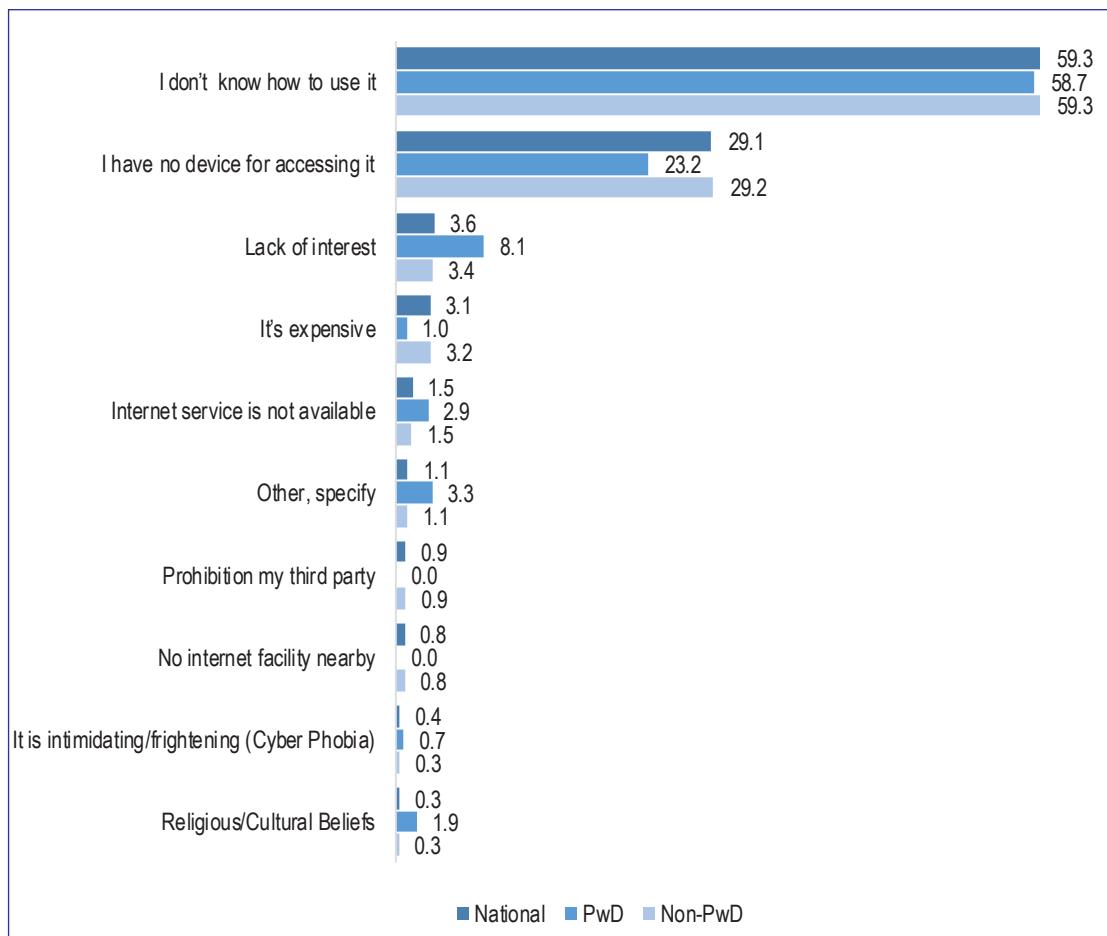
Figure 134: Barriers to Using the Internet by Province 2022

The largest proportion of females that did not use the internet attributed this to not having known how to use the internet representing about 60.8 percent whilst 27.8 percent of these females attributed it to not having a device. On the other hand, the majority of more males that did not use the internet that attributed this to not knowing how to use the internet representing 57.1 percent while 30.8 percent attributed this to not having a device to access the internet. Notably, there was a larger proportion of males that had not used the internet than women that attributed this to not having a device to access the internet, the costs associated with the use of the internet and the unavailability of internet services.

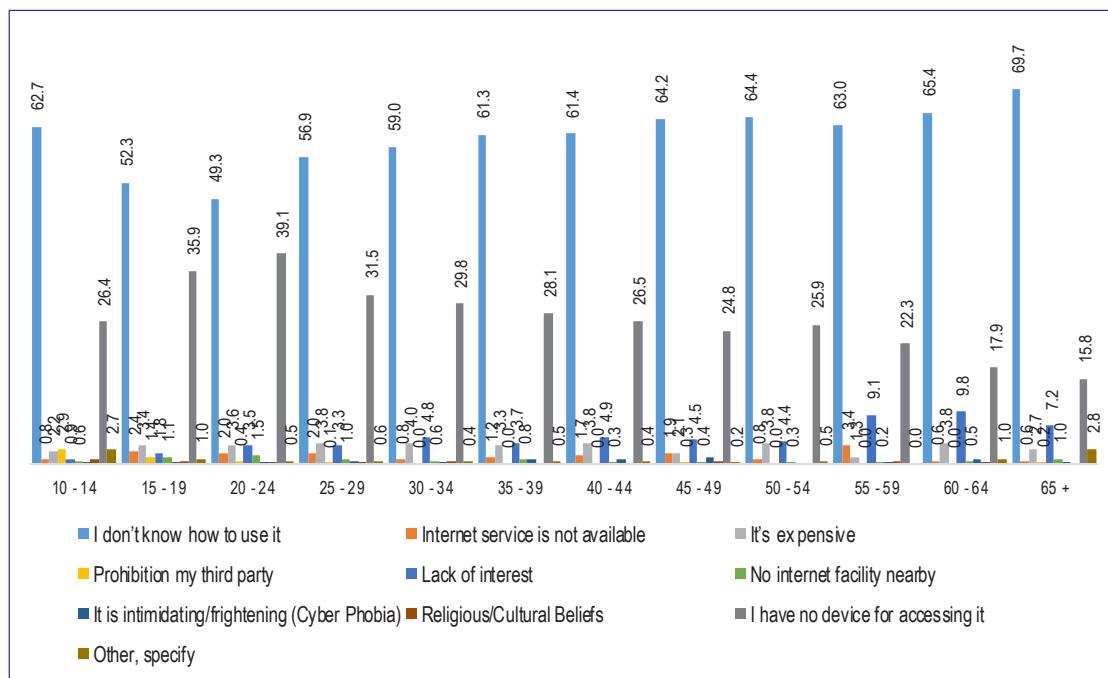
Figure 135: Barriers to Internet Usage by Sex 2022

With regards to disability status, there was a small disparity amongst individuals with disabilities and those without disabilities that attributed not using the internet to not knowing how to use the service. However, the proportion of individuals with a disability that attributed not having used the internet to the lack of a device for accessing it was lower than that of individuals that were able bodied. Further, there was a large proportion of individuals with disabilities that attributed having not used the internet to a lack of interest relative to those that did not have any disability.

Figure 136: Barriers to Internet Usage by Disability Status 2022



It was further observed that the main barrier to internet usage across age was focused on not knowing how to use the internet. Specifically, more than 50.0 percent of individuals across all age groups that had not used the internet attributed this to not knowing how to use the platform. However, more than 30.0 percent of individuals that had not used the internet in the 15 to 29 age group attributed this to not having a device to access the internet. Further, the highest proportion of individuals that had not used the internet and attributed this to a lack of interest were aged between 54 and 65 years.

Figure 137: Barriers to Internet Usage by Age; 2022

CHAPTER
5

ONLINE RISKS, INCIDENTS AND MITIGATION MEASURES

5. ONLINE RISKS, INCIDENTS AND MITIGATION MEASURES

This chapter presents an overview of the risks exposed to households and individuals aged 10 years and older in Zambia when they are online. An assessment of the incidents associated with the identified risks that households and individuals aged 10 years and older may have been exposed to is also provided. The chapter further discusses the levels of awareness of risks associated with being online as well as some of the strategies adopted by households to mitigate these risks. 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 10 years and older 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.

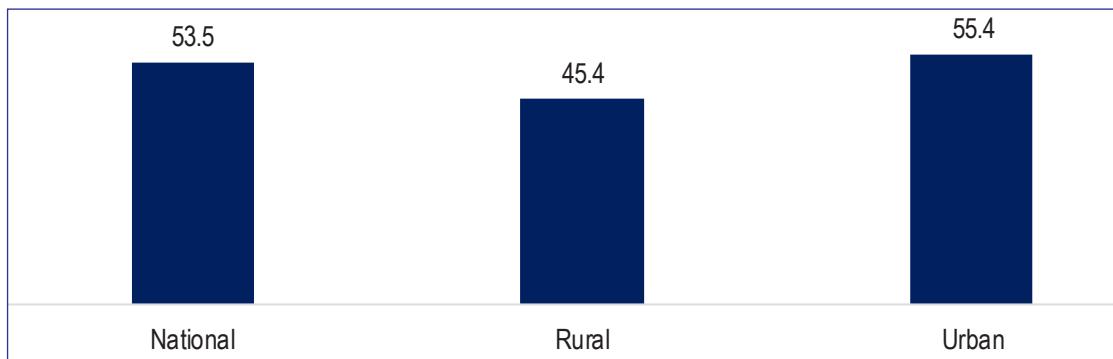
5.1. Online Risks, Incidents and Mitigation Measures among Households

5.1.1. Awareness of Internet Risks and Mitigation Measures by Households

5.1.1.1. Awareness of Risks Associated with the Internet

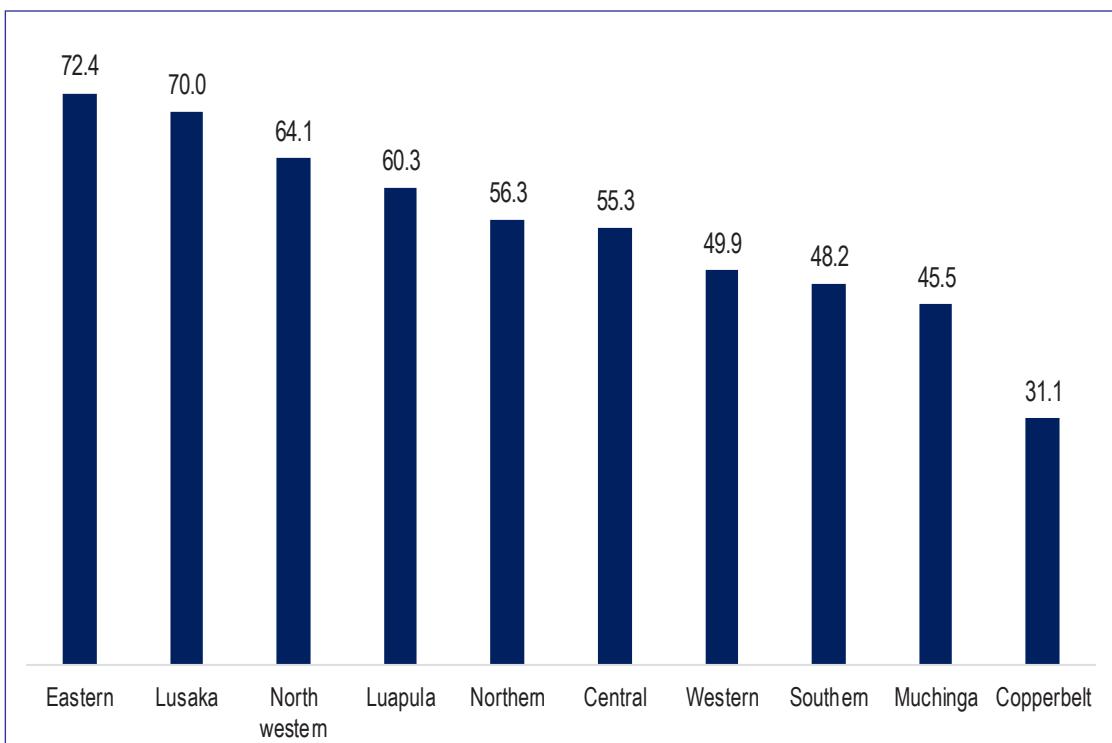
The survey results showed that 53.5 percent of households with access to the internet were aware of risks associated with the internet. The survey further estimated high levels of awareness of internet risks amongst urban households relative to rural households.

Figure 138: Level of Awareness of Risks Associated with the Internet by Region; 2022



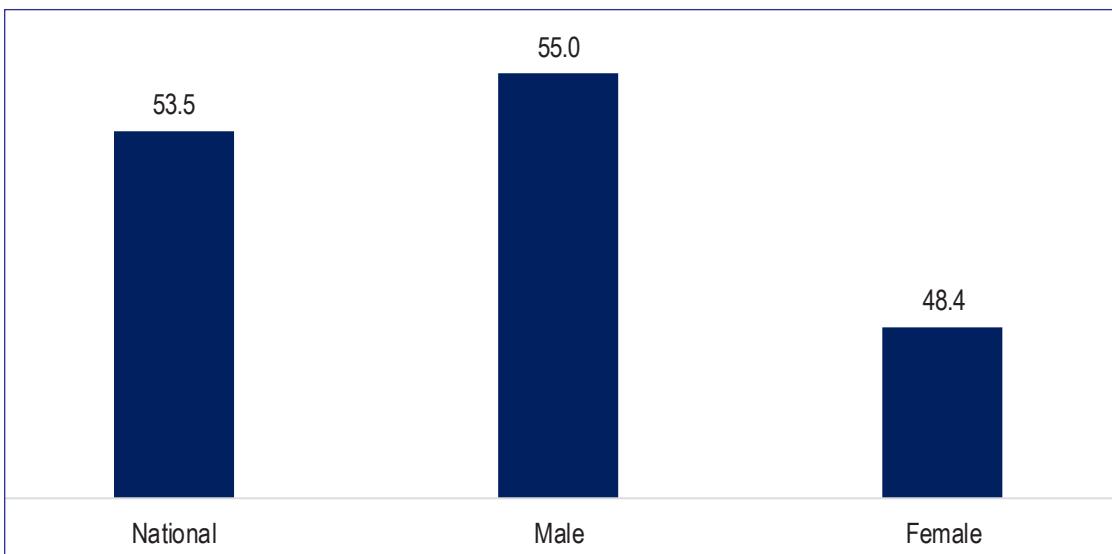
High levels of awareness of internet risks above the national average were observed amongst households with internet access in Eastern, Lusaka, North-Western, Luapula, Northern and Central Provinces. On the other hand, the proportion of households with internet access that were aware of internet risks was lowest in Copperbelt Province.

Figure 139: Levels of Awareness of Risks Associated with the Internet by Province; 2022



The level of awareness of internet risks among male-headed households was relatively higher than that of the national average and that of female-headed households.

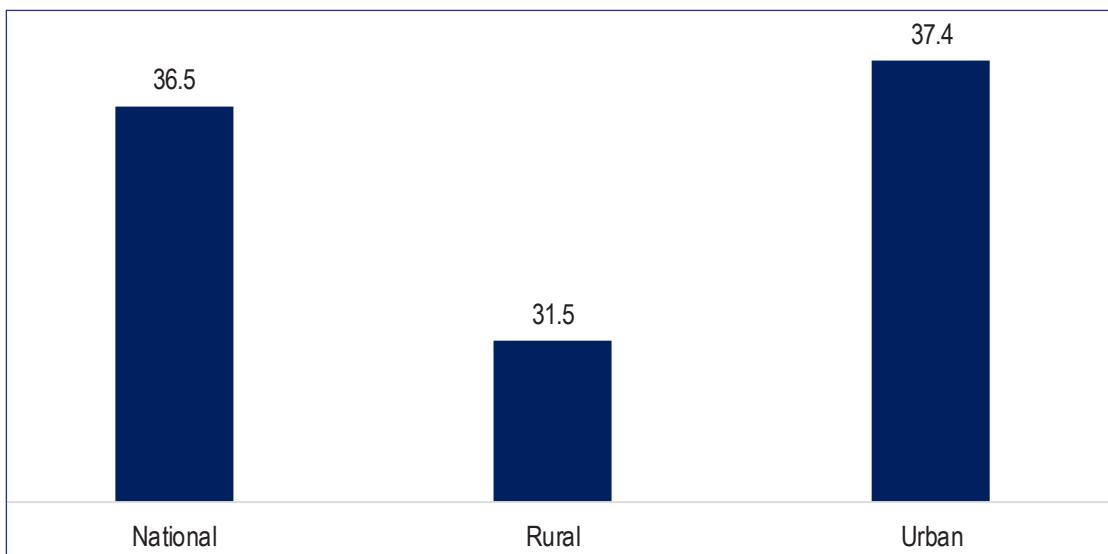
Figure 140: Level of Awareness of Risks Associated with Internet by Sex of Household Head; 2022



5.1.2. Adoption of Strategies to Mitigate Exposure to Illicit Content

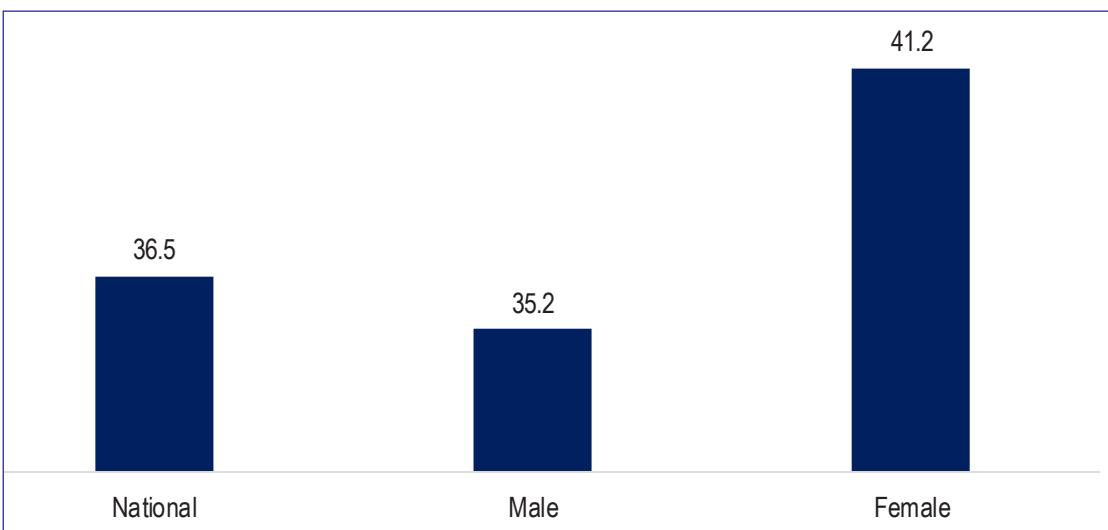
The survey established that 36.5 percent of households that were aware of risks associated with internet use used tools or strategies to mitigate the risks of household members' exposure to illicit content accessible on the Internet. Further, adoption of tools or strategies for mitigation of exposure of household members to illicit internet content was higher among urban households compared to rural households.

Figure 141: Adoption of Strategies to Mitigate Online Risks: 2022

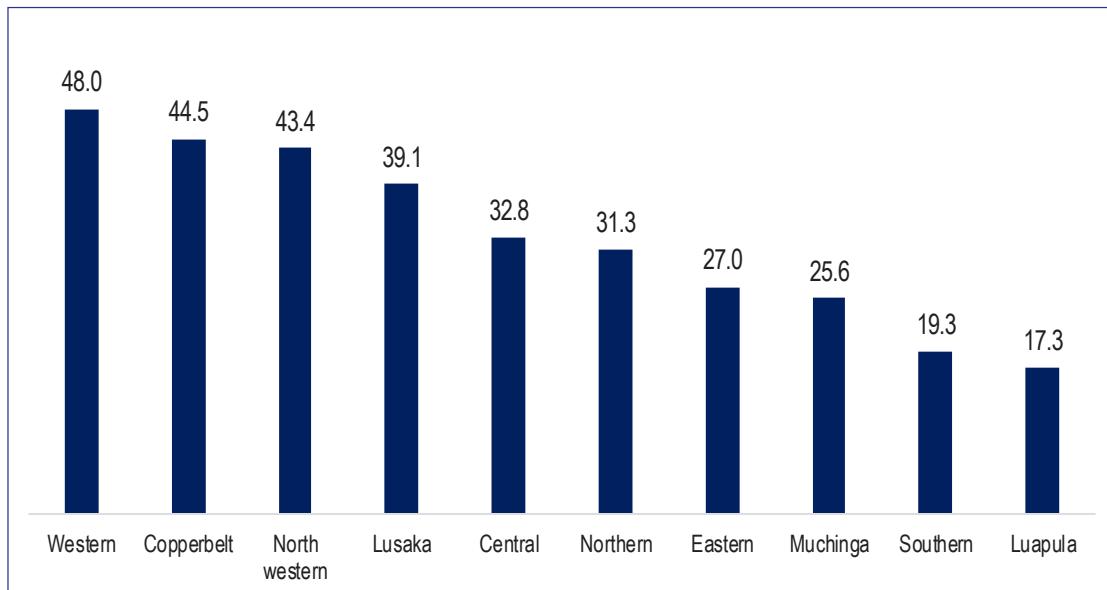


With regards to household headship, adoption of mitigation measures to protect members of the household from exposure to illicit internet content was higher among female-headed households compared to male-headed households.

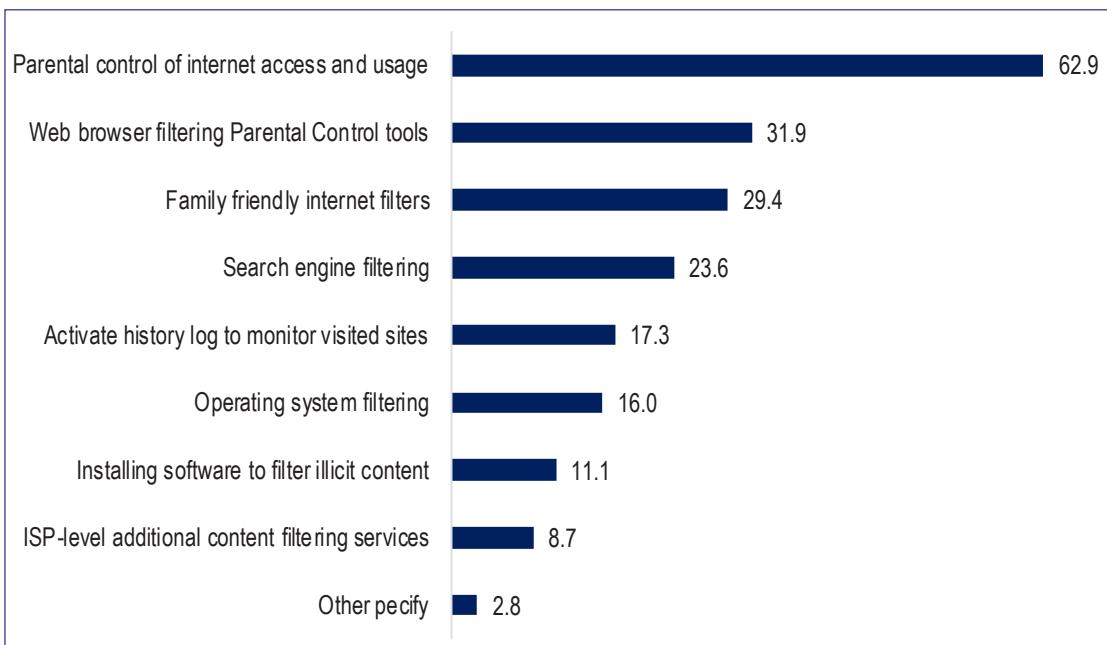
Figure 142: Adoption of Strategies to Mitigate Online Risks by Sex of Household Head: 2022



Higher proportions of household adoption of mitigation measures aimed at protecting members of the household from exposure to illicit online content were observed in Western, Copperbelt, North-Western and Lusaka Provinces. However, the proportion of households that adopted of mitigation measures against exposure to illicit online content was lowest in Luapula Province.

Figure 143: Adoption of Strategies to Mitigate Online Risks by Province: 2022

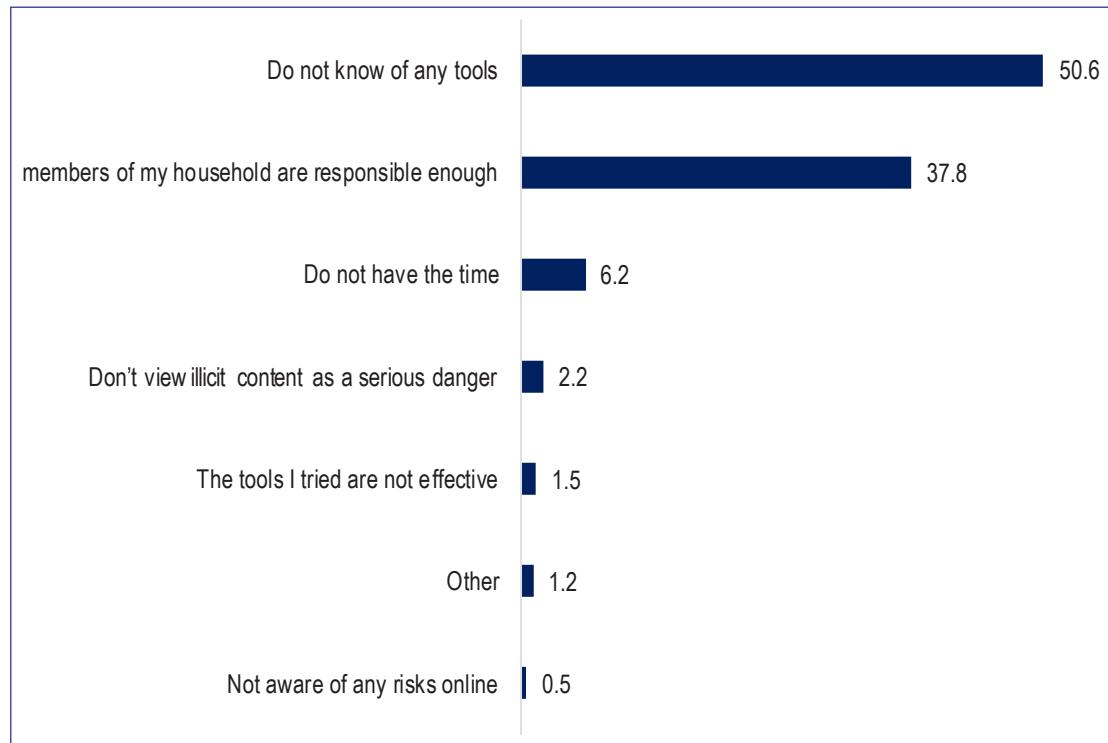
The most commonly adopted tool or strategy by households to mitigate against exposure to illicit content was parental control of internet access and usage, which was used by 62.9 percent of households using mitigation strategies for online risks. Other more commonly used strategies included web browser filtering parental control tools, family friendly internet filters and search engine filtering accounting for 31.9 percent, 29.4 percent, and 23.6 percent of households using online risk mitigation tools respectively. Installing software to filter illicit content and ISP-level additional content filters services were observed to be the least adopted strategies among households accounting for 11.1 percent and 8.7 percent respectively.

Figure 144: Strategies Adopted to Mitigate Exposure to Illicit Online Content; 2022

5.1.3. Reasons for not Adopting Mitigation Strategies for Online Risks

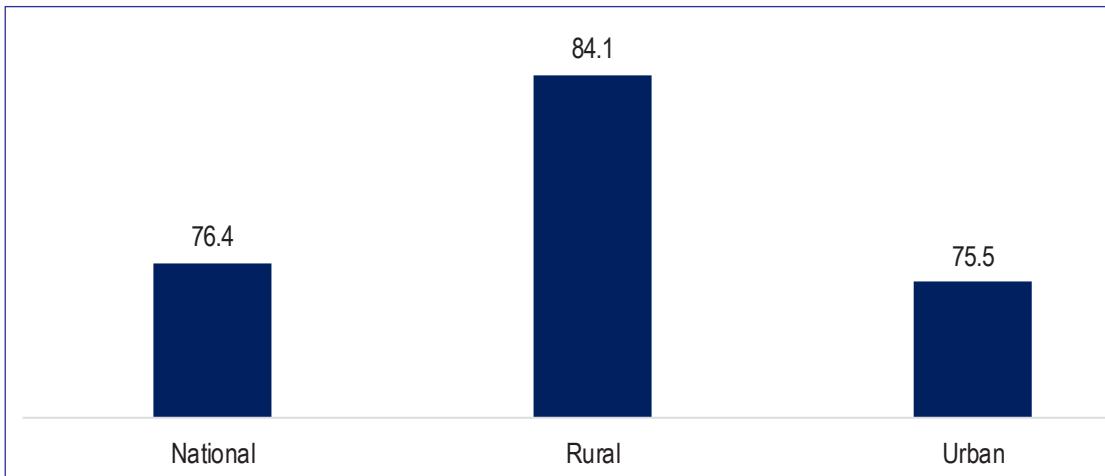
The survey revealed that the majority of households that were aware of online risks but did not use any mitigation strategies for online risks did not know of any such tools. Specifically, 50.6 percent of households that did not use any mitigation strategy attributed this to lack of knowledge on any strategy while 37.8 percent attributed this to the understanding that household members were responsible enough. A much smaller proportion of households reported that they did not view illicit online content as a serious danger or that the existing tools were ineffective as a reason for not adopting any mitigation strategy for online risks.

Figure 145: Main Reasons for not using any Strategies to Mitigate Exposure to Illicit Content; 2022

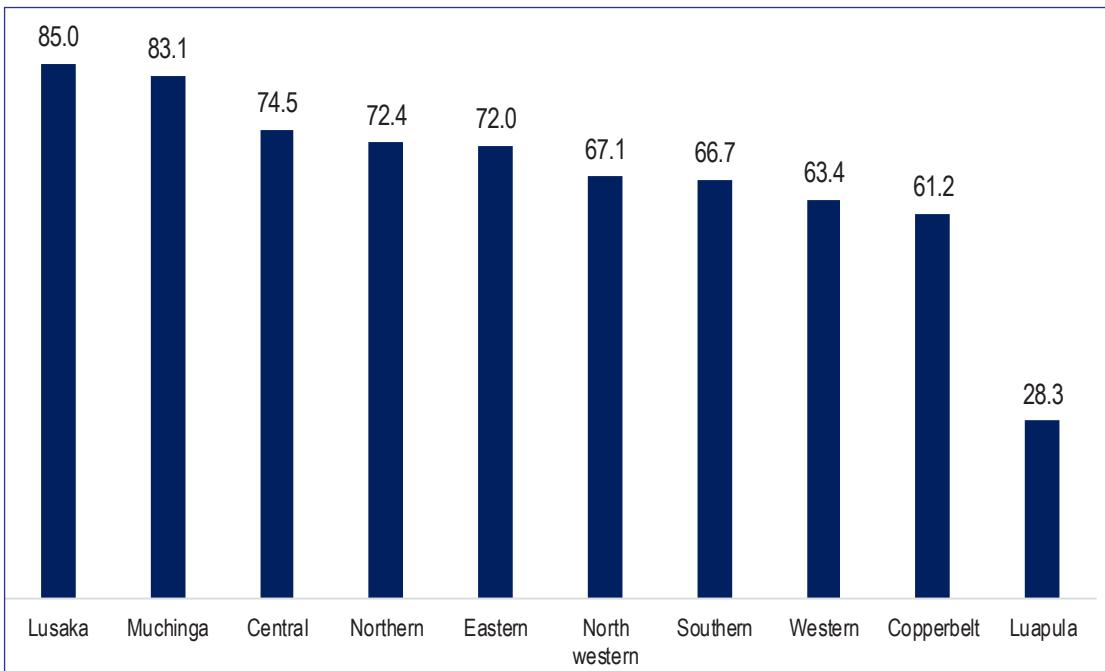


5.1.4. Understanding of Activities Carried out Online

The survey established that 76.4 percent of households that were aware of internet related risks had an understanding of the activities that household members undertook when on the internet. Further, the proportion of households with an understanding of household members' activities on the internet was high among rural households compared to the proportion of urban households.

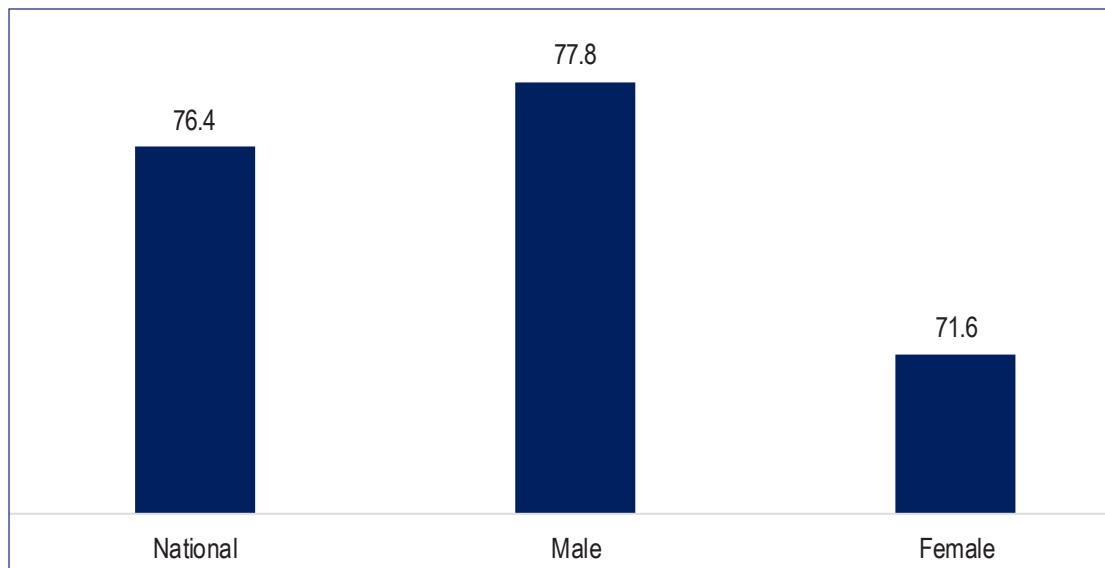
Figure 146: Understanding of Activities Carried out Online by Region: 2022

The highest proportion of households with an awareness of online risks that had an understanding of the activities undertaken by household members when on the internet was observed in Lusaka and Muchinga Provinces. On the other hand, Luapula Province had the least proportion of households with awareness of online risks that had an understanding of the activities undertaken by household members when online.

Figure 147: Understanding of Activities Carried out Online by Province; 2022

With regards to the sex of the head of the household, the survey established that the proportion of male-headed households that had an understanding of activities conducted by household members when online was higher than that of female-headed households.

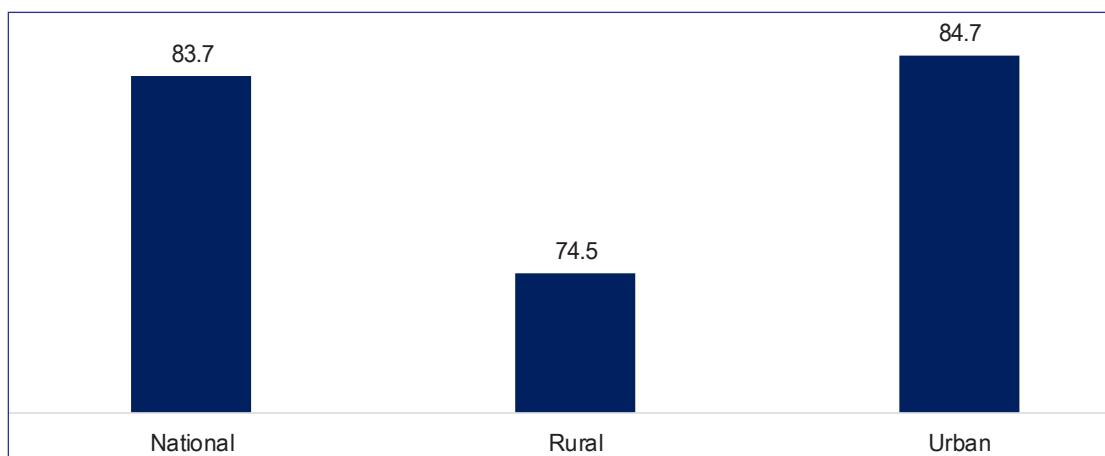
Figure 148: Understanding of Activities Carried out Online by Sex of Household Head; 2022



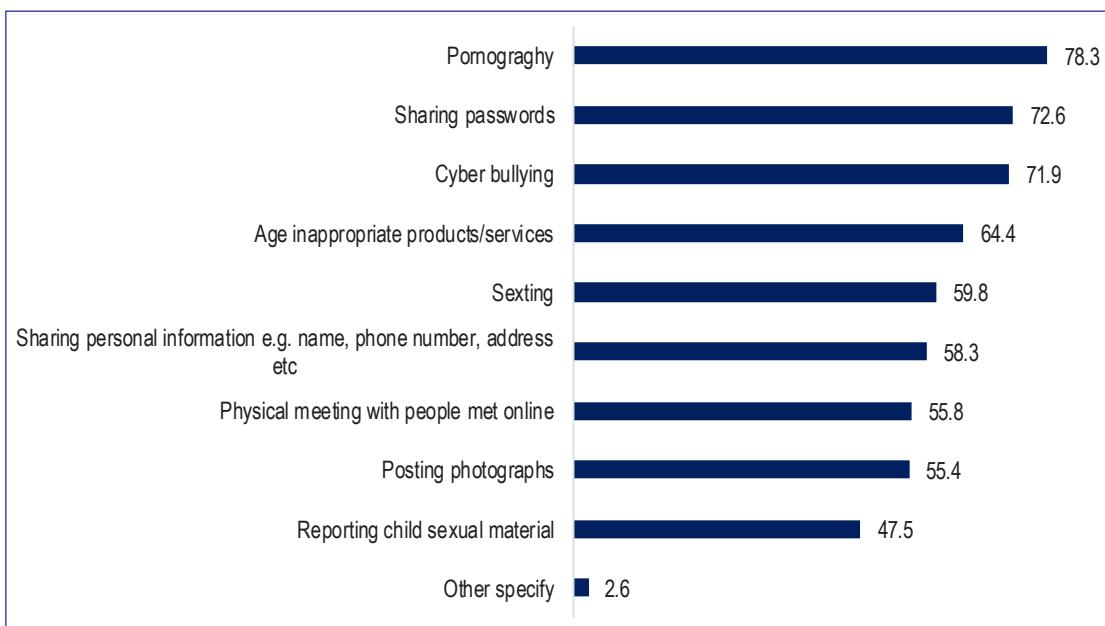
5.1.5. Education on Internet Risks within Households

The survey results revealed that a large proportion of households with access to the internet had some form of education on the risks associated with internet use shared with members of the household. It was estimated that 83.7 percent of households with internet access had some form of education on internet risks shared with household members with majority of these households based in urban areas. Internet risks-based education amongst households was observed to be higher among urban households compared to rural households.

Figure 149: Education on Internet Risks within Households: 2022

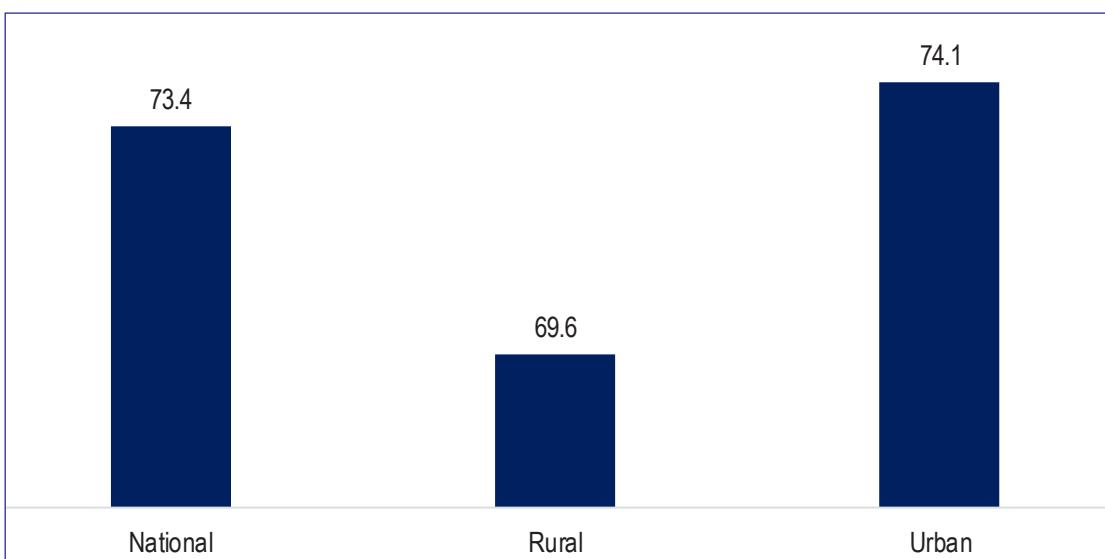


Education on online risks that was provided to household members mostly focused on sharing of passwords and pornography. Particularly, it was estimated that of the households that provided education on internet risks, 78.3 percent discussed pornography and 72.6 percent discussed sharing of passwords. Education on cyberbullying, age inappropriate products and services, sexting were also key issues discussed by households as they were observed in 71.9 percent, 64.4 percent and 59.8 percent of households respectively. Education on reporting child sexual material was less prevalent amongst households that had education on internet risks as it was discussed in 47.5 percent of these households.

Figure 150: Education Topics Covered by Households on Internet Risks; 2022

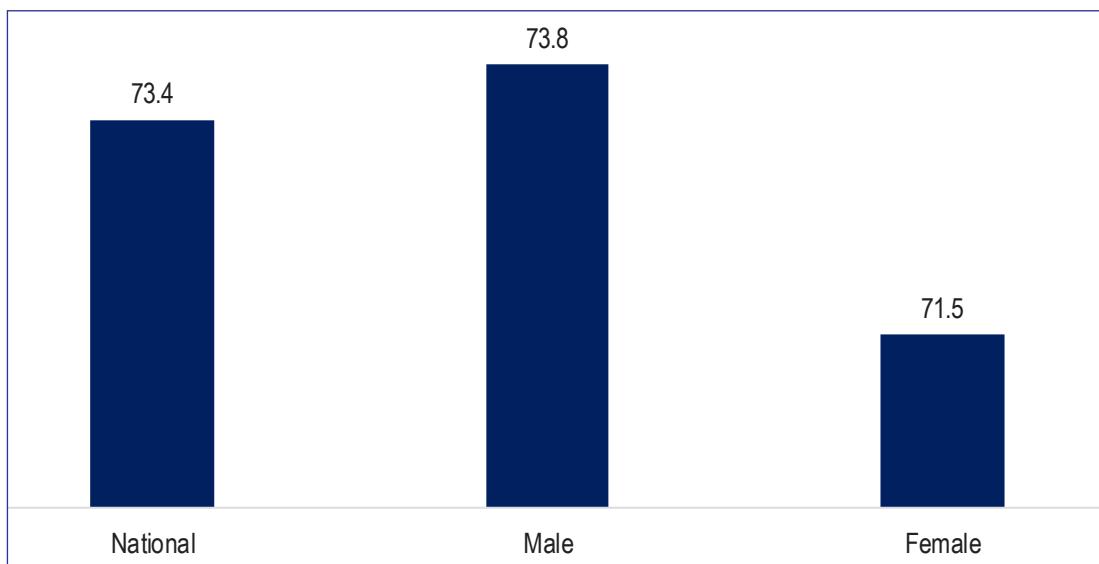
5.1.6. Reporting of Online Experiences within Households

A review of the households with internet access showed that most household members share their online experiences with other household members. The survey showed that 73.4 percent of households with access to the internet shared their online experiences with household members. Further, the proportion of households that shared their online experiences with household members was relatively higher among urban households compared to rural households.

Figure 151: Reporting of Online Experiences within Households by Region; 2022

It was further established that the sharing of online experiences amongst household members was more prominent in male-headed households compared to female-headed households.

Figure 152: Sharing of Online Experiences within Household by Sex of Household Head: 2022

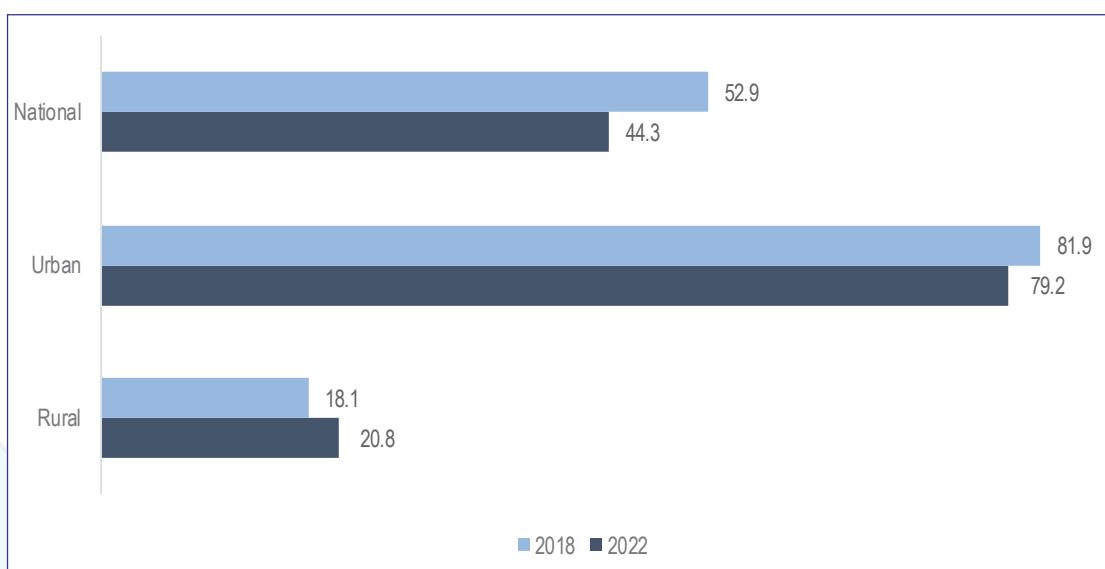


5.2. Online Risks, Incidents and Mitigation by Individuals

5.2.1. Awareness of Risks Associated with Online Activities

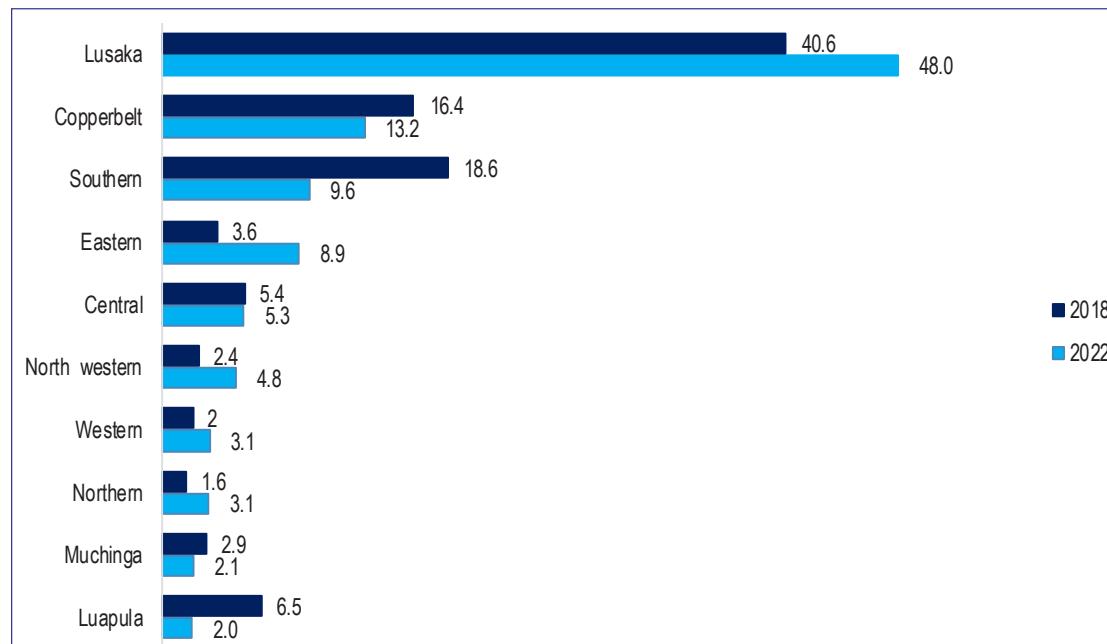
The survey estimated that the proportion of individuals aged 10 years and older with access to the internet that were aware of the risks associated with online activities was 44.3 percent in 2022, comparatively less than 52.9 percent reported in 2018. Majority of individuals aged 10 years and older that were aware of the risks associated with being online were based in urban areas accounting for 79.2 percent while those based in rural areas accounted for 20.8 percent. The rural/urban distribution of individuals' awareness of online risks in 2022 was similar to that of 2018. However, the proportion of individuals in rural areas that were aware of online risks increased in 2022 relative to 2018.

Figure 153: Awareness of Online Risks among Individuals by Region; 2018 and 2022



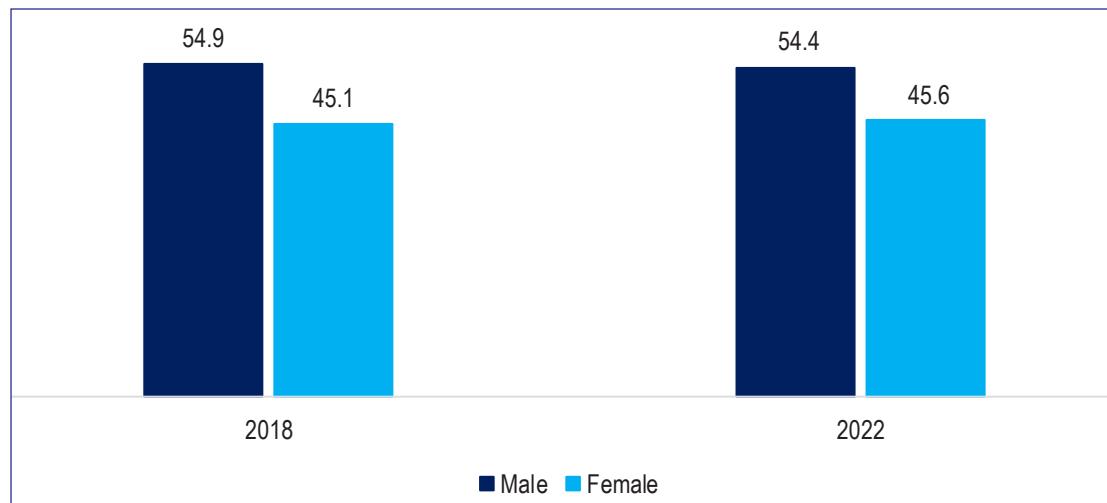
A provincial review showed that the majority of individuals aged 10 years and older across the country with access to the internet that were aware of the risks associated with internet use were based in Lusaka, Copperbelt and Southern Provinces accounting for 48.0 percent, 13.2 percent and 9.6 percent, respectively. Muchinga and Luapula Provinces accounted for the lowest proportions of individuals with internet access that were aware about the risks associated with online activity constituting 2.1 percent and 2.0 percent, respectively. Further, it was observed that the proportion of internet users that were aware about online risks in 2022 increased in Lusaka, Eastern, North Western, and Northern Province from that of 2018.

Figure 154: Awareness of Online Risks among Individuals by Province; 2018 and 2022



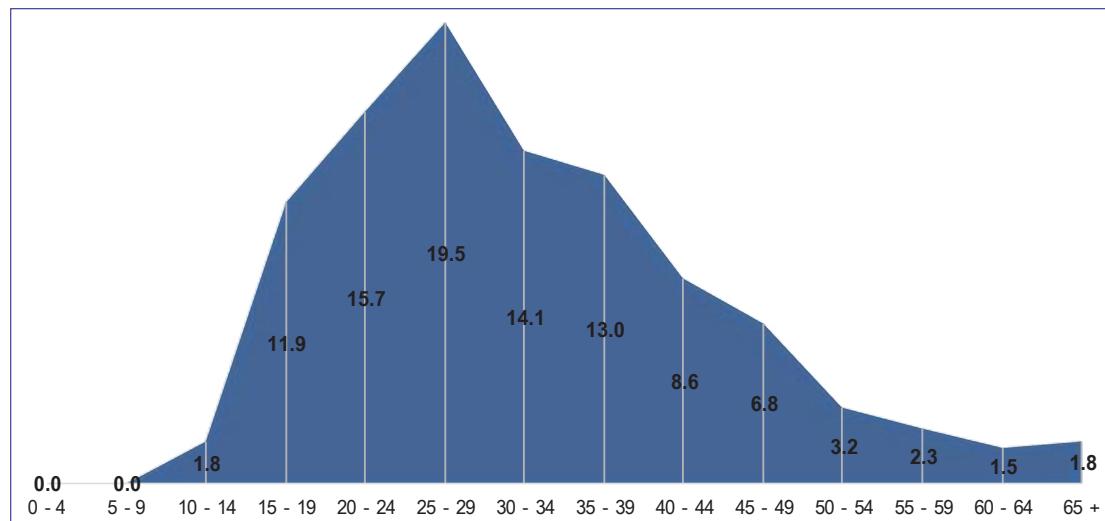
With regards to sex, majority of individuals aged 10 years and older that used the internet and were aware of the risks associated with online activities were male. Specifically, male internet users with an awareness of online risks accounted for 54.4 percent of the population of internet users with an awareness of online risks. On the other hand, female internet users accounted for 45.6 percent of internet users with an awareness of online risks.

Figure 155: Awareness of Online Risks among Individuals by Sex; 2018 and 2022



Majority of internet users that were aware of online risks were below the age of 35. This age group accounted for 63.0 percent of the internet users that reported that they were aware of risks associated with online activities. Less than 10.0 percent of the internet users that were aware about risks associated with online activities were above the age of 50 years.

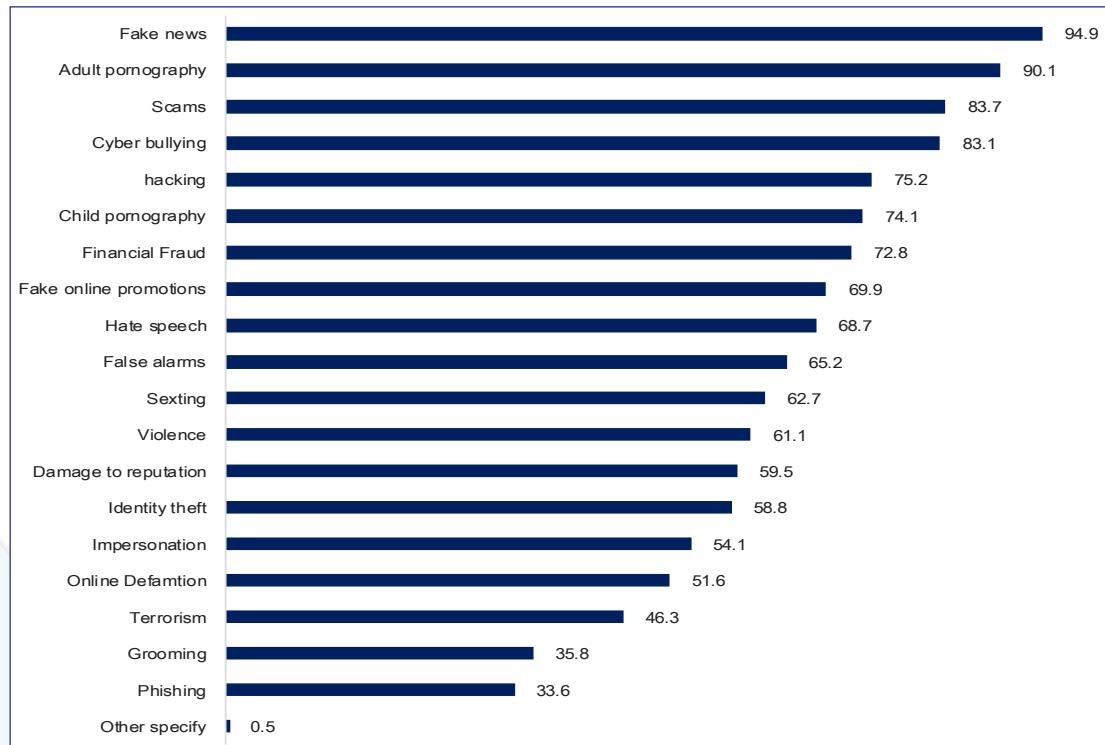
Figure 156: Awareness of Online Risks among Individuals by Age; 2022



5.2.2. Awareness on Various Types of Online Risks

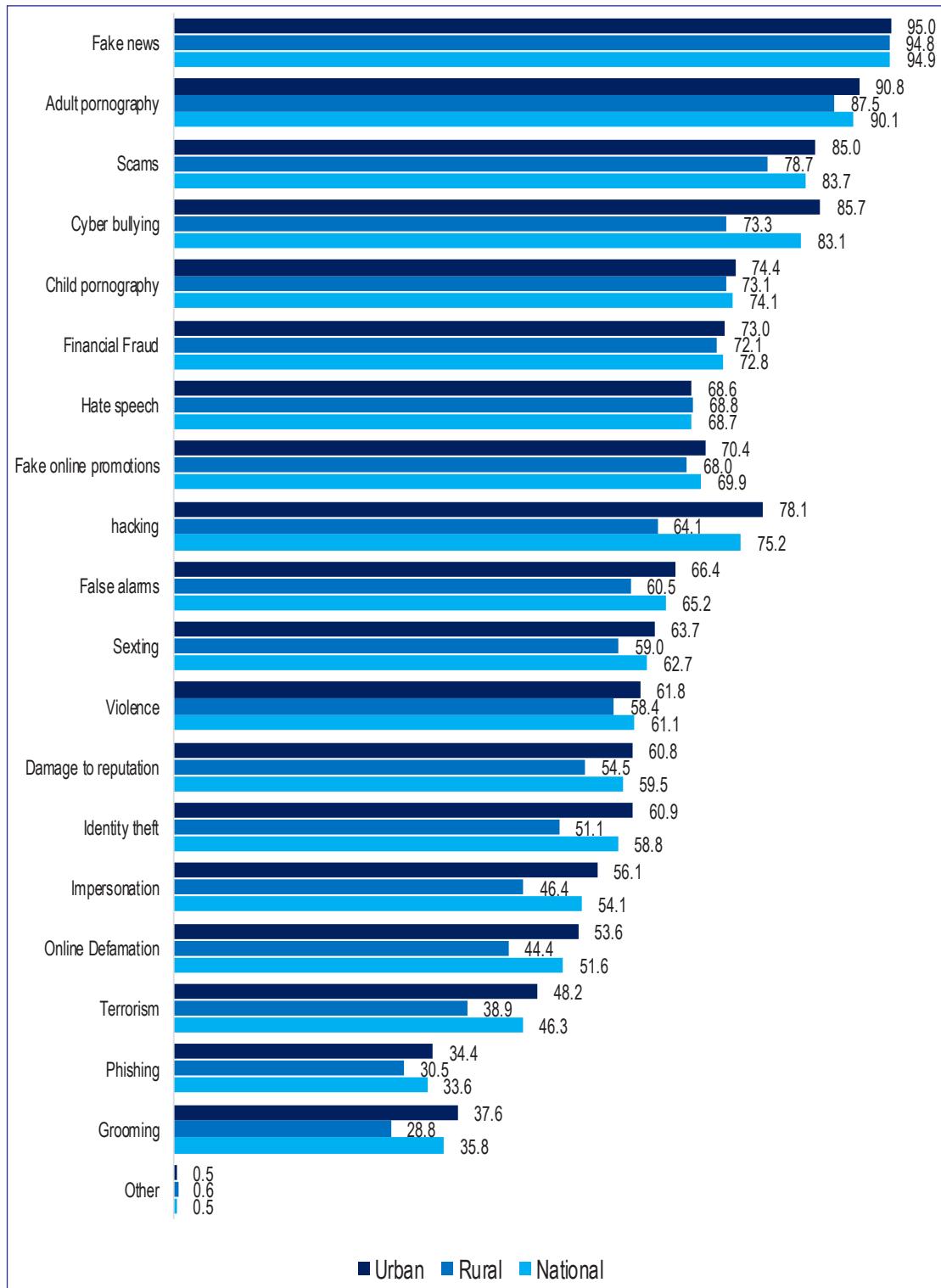
The survey established that awareness of online risks including fake news, adult pornography, scams and cyber bullying amongst individuals aged 10 years and older was significantly high accounting for 94.9 percent, 90.1 percent, 83.7 percent and 83.1 percent respectively. However, proportion of internet users with awareness on online risks that were aware of online risks such as terrorism, online defamation and phishing was relatively low.

Figure 157: Awareness of Online Risks among Individuals by Type; 2022



The survey established that there were marginal disparities between rural and urban based internet users with regards to the types of internet risks that users were aware of. Specifically, the findings indicate that awareness of fake news, adult pornography, scams and cyber bullying was significantly high among internet users in both rural and urban areas. Significant disparities in the types of internet risks that internet users in urban and rural areas was observed amongst hacking, online defamation, identity theft, impersonation, terrorism and grooming.

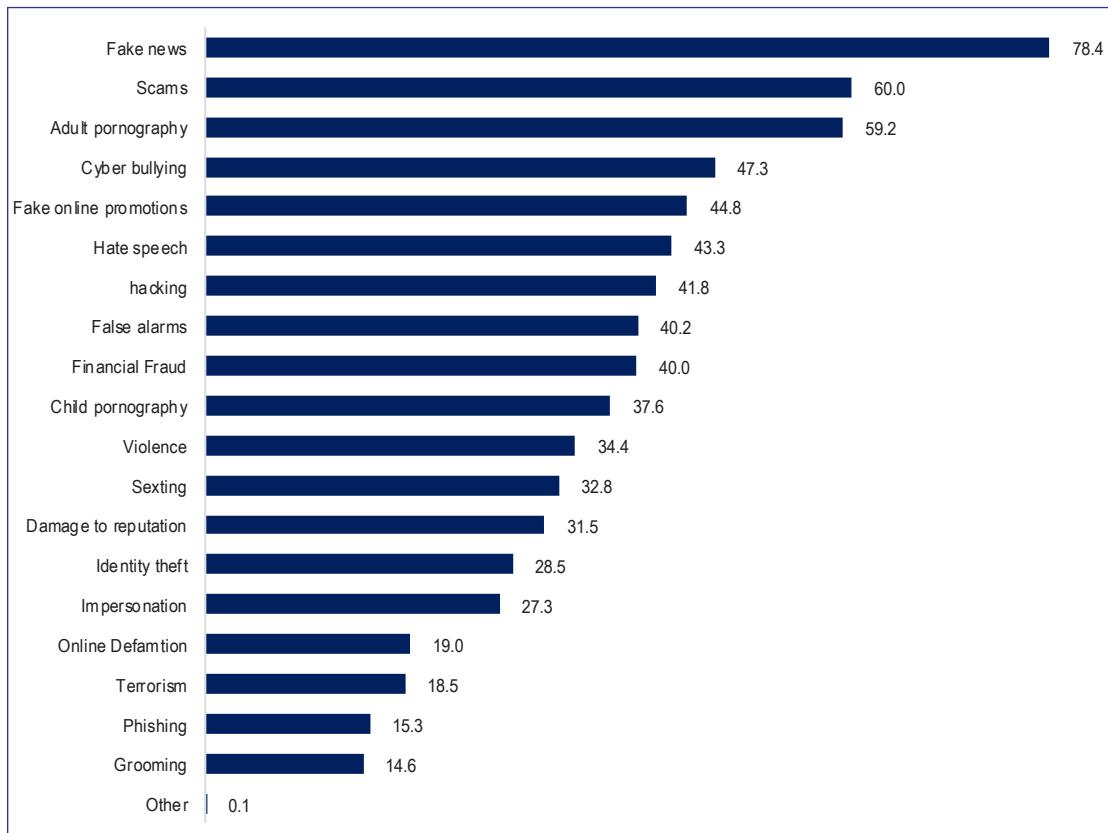
Figure 158: Awareness of Type of Online Risks among Individuals by Region; 2022



5.2.3. Exposure to Online Risks among Internet Users

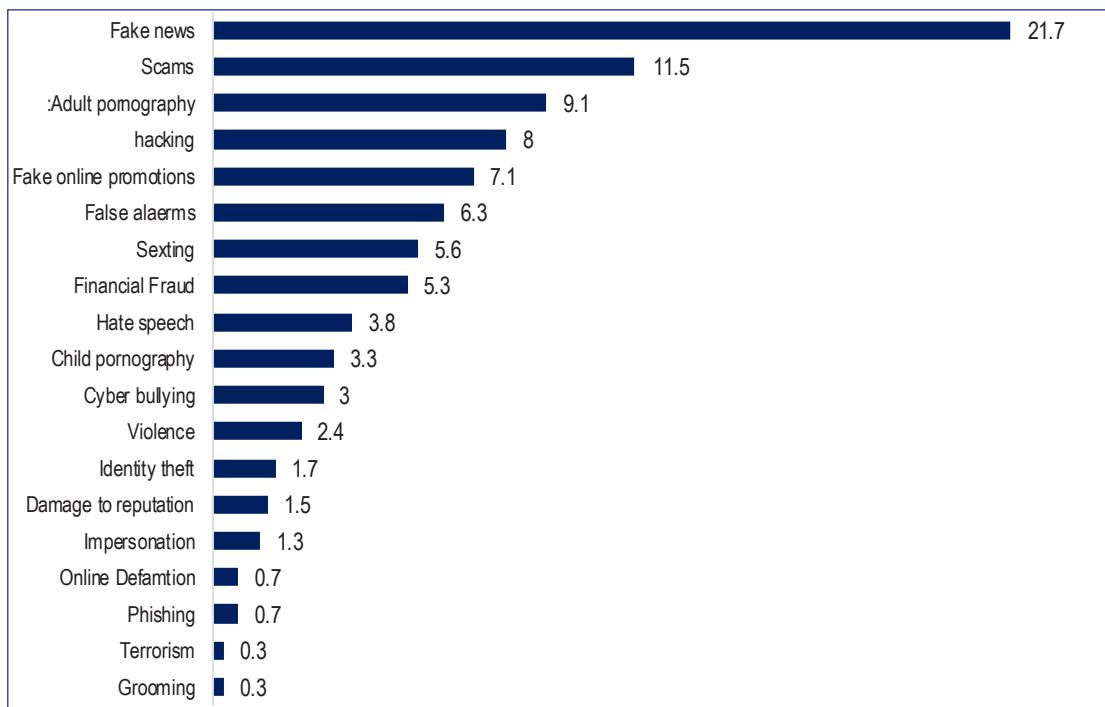
Exposure to fake news and scams were the most prevalent incidents that individuals' aged 10 years and older with access to internet encountered while online. Specifically, 78.4 percent of the internet users aged 10 years and older that indicated that they were aware of online risks had been exposed to fake news, while 60.0 percent had been exposed to scams. On the other hand, risks such as phishing and grooming were less commonly encountered by individuals aged 10 years and older that were exposed to risks while online accounting for 15.3 percent and 14.6 percent respectively.

Figure 159: Exposure to Online Risk among Internet Users by Type; 2022



5.2.4. Incidences of Online Risks

Of the internet users aged 10 years and older that were reported to have encountered online risks, the biggest proportion were observed to have been victims of fake news and scams. Notably, fake news made up the highest proportion of online incidences encountered by internet users accounting for 21.7 percent followed by scams which accounted for 11.5 percent. Terrorism and grooming were observed to be relatively less prevalent among internet users accounting for 0.3 percent apiece.

Figure 160: Distribution of Online Incidences by Type; 2022

5.2.5. Usage of Social Media

The survey revealed that WhatsApp and Facebook were the most widely used social media platforms among internet users aged 10 years and older. Usage of WhatsApp accounted for 50.5 percent of internet users that knew about online risks while Facebook was used by 45.7 percent. On the other hand, usage of other social media platforms among internet users with knowledge of online risks was significantly low.

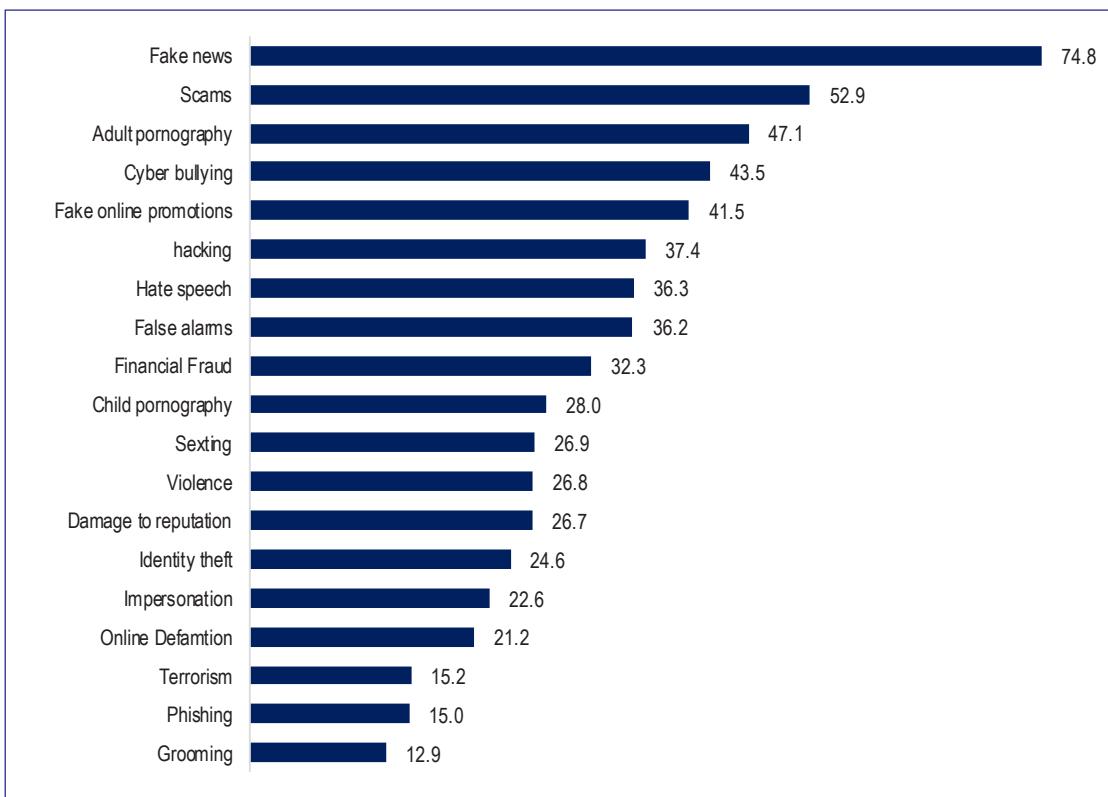
Figure 161: Distribution of Social Media Usage by Type of Application; 2022

5.2.6. Exposure to Online Risk on Social Media

Exposure to fake news and scams were observed to be the most prevalent incidents that social media users were exposed to in the course of using social media platforms. Specifically, 74.8 percent of social media users indicated that they were exposed to fake news while using the platforms while 52.9 percent were exposed to scams and 47.1 percent were exposed to adult pornography. On the other hand, fewer social media users reported exposure to phishing and grooming. It was observed that online

risks encountered on social media were similar to that of online risks encountered by internet users in general.

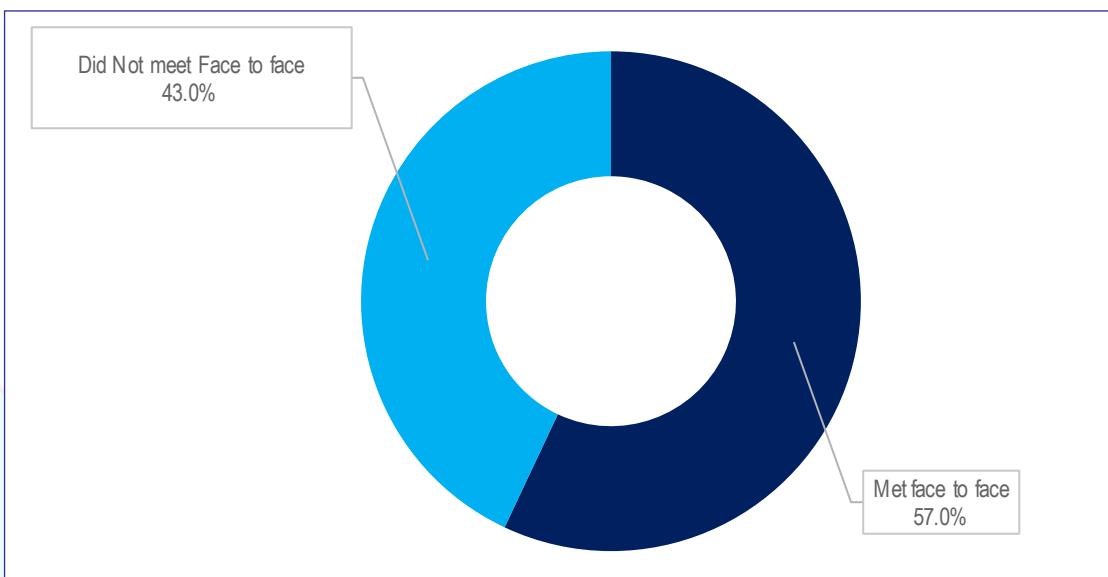
Figure 162: Exposure to Online Risks on Social Media Platforms by Type; 2022



5.2.7. Physical Interaction with Person met Online

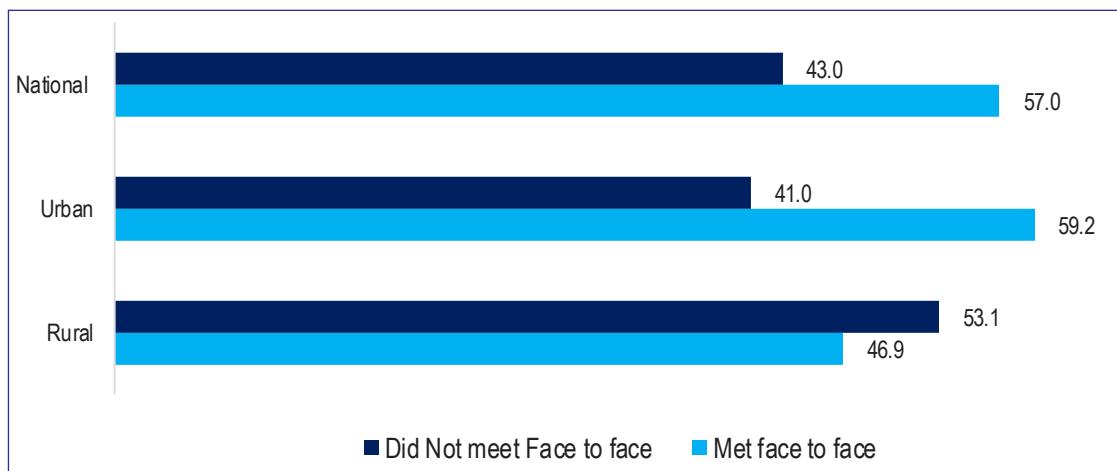
The survey results showed that majority of internet users that first met other internet users on social media platforms followed up with a face-to-face meeting. Specifically, 57.0 percent of social media users who had first met online proceeded to meet in-person while 43.0 percent did not meet these acquaintances in-person.

Figure 163: Individuals that Met Face-to-Face with Someone they First Knew Online; 2022



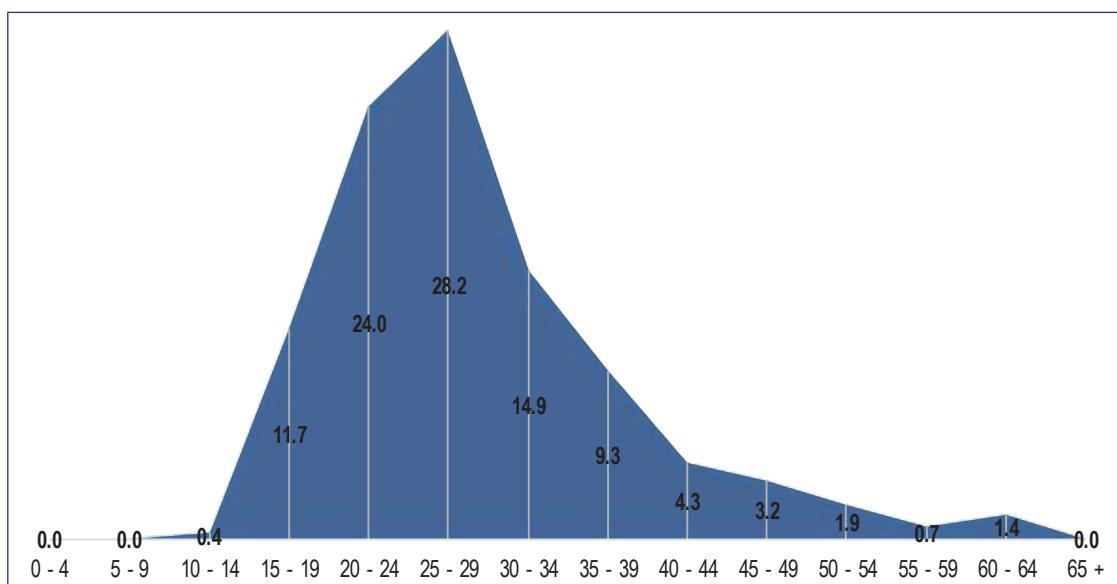
Social media users aged 10 years and older based in urban areas that reported that they met face-to-face with someone they first got to know online accounted for 59.2 percent. Similarly, 46.9 percent of social media users based in rural areas reported that they had met face-to-face with someone they first got to know online. Consequently, a greater proportion of social media users in urban areas met someone physically, than social media users in rural areas.

Figure 164: Individuals that Met Face-to-Face with Someone First Known Online by Region; 2022



With reference to age distribution, it was observed that the majority of social media users that met face-to-face with someone they first got to know online were aged below 35 years accounting for 79.2 percent. Less than 5.0 percent of social media users that had met face-to-face with someone they first got to know online were aged 50 years and older.

Figure 165: Individuals that Met Face-to-Face with Someone First Known Online by Age; 2022

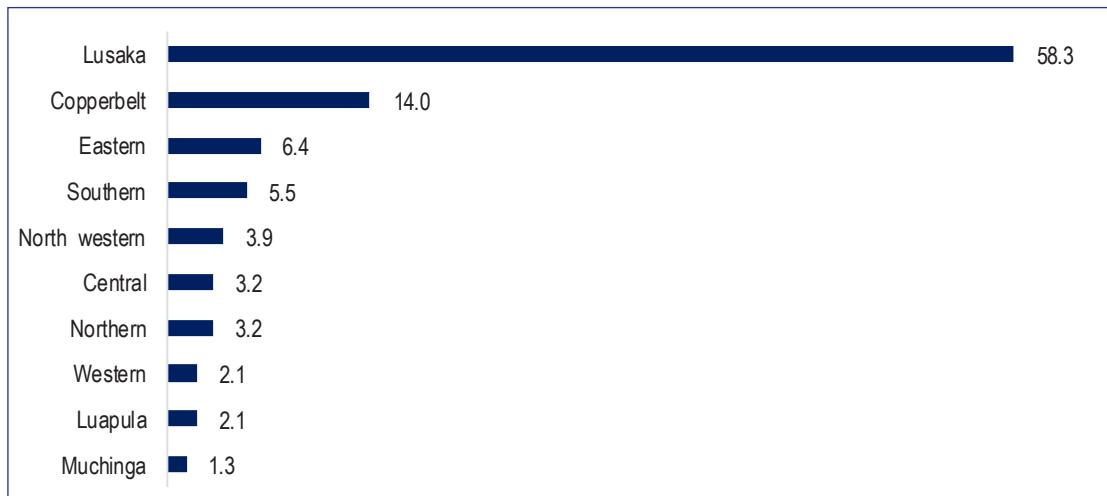


5.2.8. Knowledge on Activation of Security/Privacy Settings

The survey revealed that knowledge on the activation of security/privacy settings on social media platforms or web browsers was significantly high among internet users in Lusaka Province accounting for 58.3 percent of internet users with this knowledge.

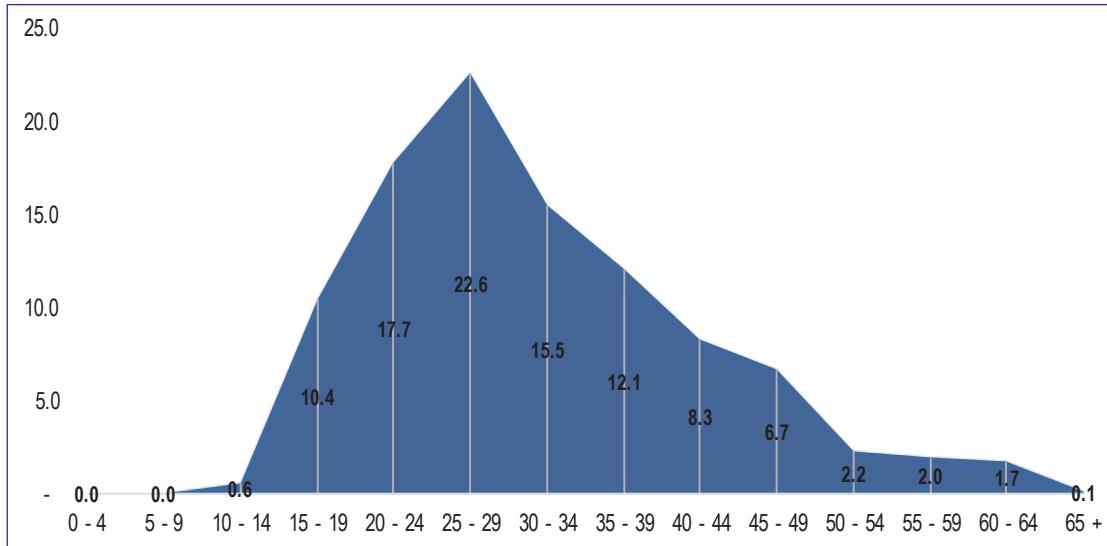
Muchinga Province on the other hand reported the lowest percentage of internet users that had knowledge on the activation of security or privacy settings on internet enabled platforms accounting for 1.3 percent. A similar pattern was observed in the provincial analysis of knowledge on activation of security/privacy settings on online platforms reported in 2018.

Figure 166: Knowledge on Activation of Security or Privacy Settings among Individuals by Province; 2022



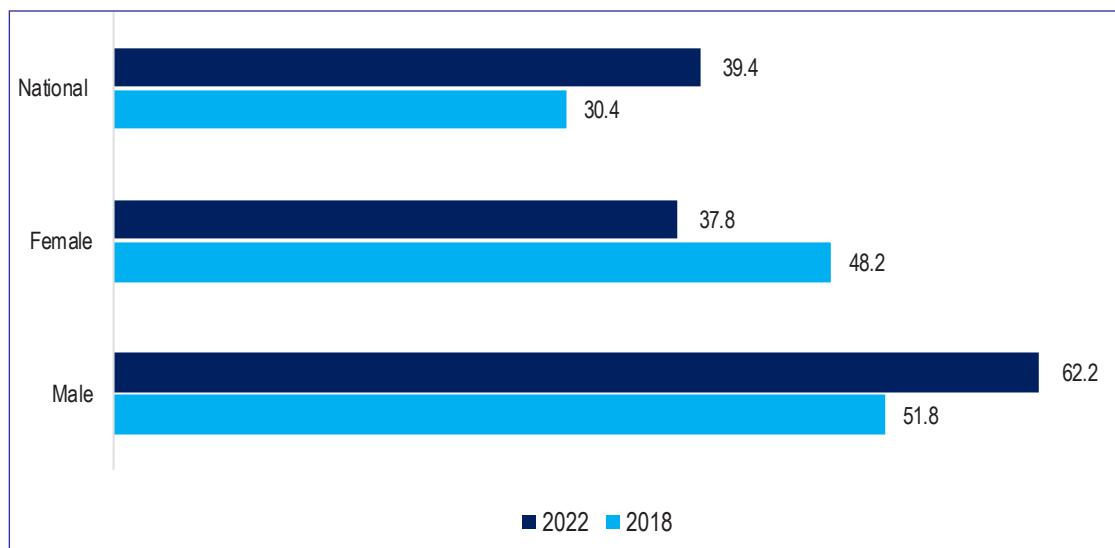
It was further observed that 66.8 percent of internet users that had knowledge on activation of security/privacy settings were below the age of 35. Fewer than 10.0 percent of internet users with knowledge on activation of security/privacy settings on social media or web browser were 50 years and older.

Figure 167: Knowledge on Activation of Security or Privacy Settings among Individuals by Age-Group; 2022



There was a comparative increase in the proportion of internet users that reported that they had knowledge on the activation of security/privacy settings on social media and/or web browsers from 30.4 percent in 2018 to 39.4 percent in 2022. As observed in 2018, the proportion of male internet users with knowledge on activation of security/privacy settings when using the internet was higher than that of female internet users with this knowledge.

Figure 168: Knowledge on Activation of Security or Privacy Settings among Individuals by Sex; 2018 and 2022



**CHAPTER
6**

USAGE OF ELECTRONIC SERVICES BY HOUSEHODS AND INDIVIDUALS



6. USAGE OF ELECTRONIC SERVICES BY HOUSEHODS AND INDIVIDUALS

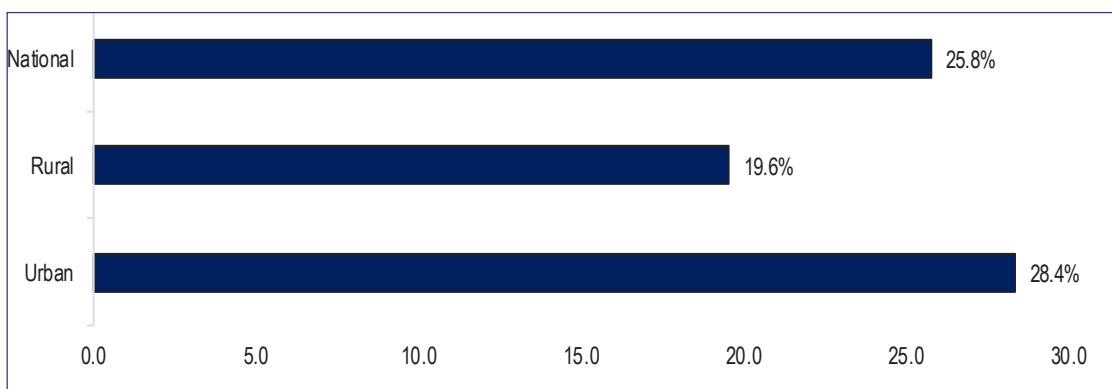
This chapter provides an assessment of the extent of adoption of electronic services in the country. An evaluation of the different types of electronic services adopted across regions is provided to establish any differences in adoption based on the geographical location of households and individuals. The chapter evaluates the extent of adoption of both electronic government services as well as e-commerce. The different electronic Government services accessed by households is evaluated to determine the nature and extent of usage of electronic government services. The extent of usage of electronic commerce as well as any observed challenges encountered while using e-commerce are also highlighted. Finally, the chapter provides an evaluation of emerging aspects related to the usage of electronic applications for accessing various services.

6.1. Usage of Government Service Bus by Households

6.1.1. Usage of Government Service Bus by Households across Regions

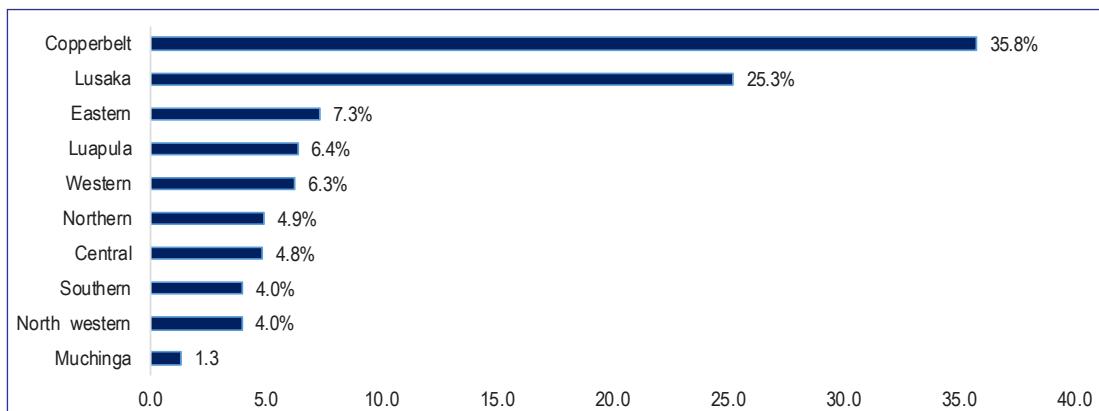
The survey results revealed that 25.8 percent of households across the country had used the Government Services Bus (GSB) also known as the ZamPortal prior to the survey. The use of the GSB was highest among households in urban areas accounting for 28.4 percent compared to 19.6 percent of households in rural areas.

Figure 169: Usage of the GSB by Households: 2022



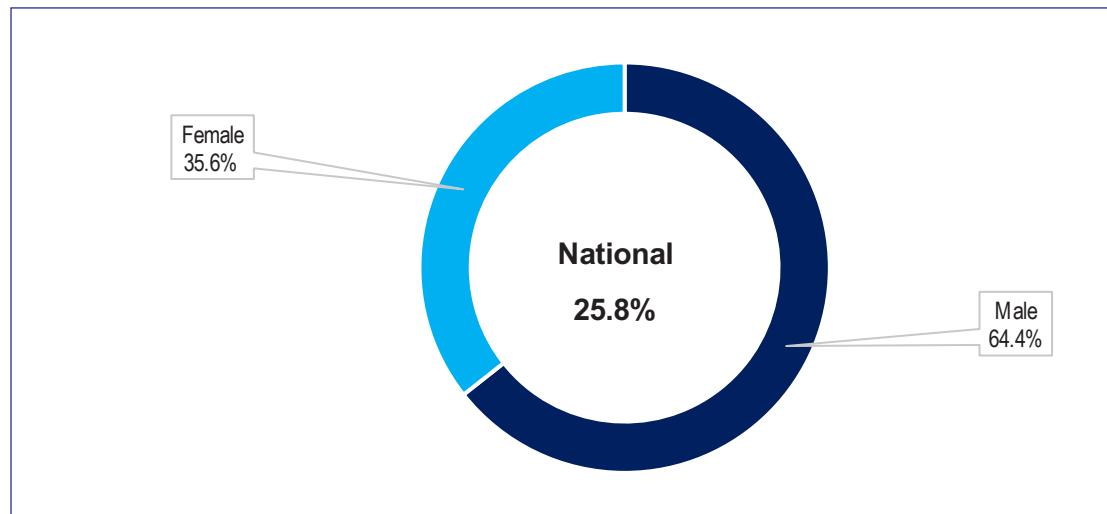
The highest number of households using the GSB were observed in the Copperbelt and Lusaka Provinces which accounted for 35.8 percent and 25.3 percent of the households using the service respectively. However, the proportion of households using the GSB in all the other provinces was far lower accounting for less than 10.0 percent of all the households that had used the platform.

Figure 170: Household Usage of the GSB by Province: 2022



The majority of the households that had used the GSB were male headed constituting 64.4 percent while female headed households only accounted for 35.6 percent.

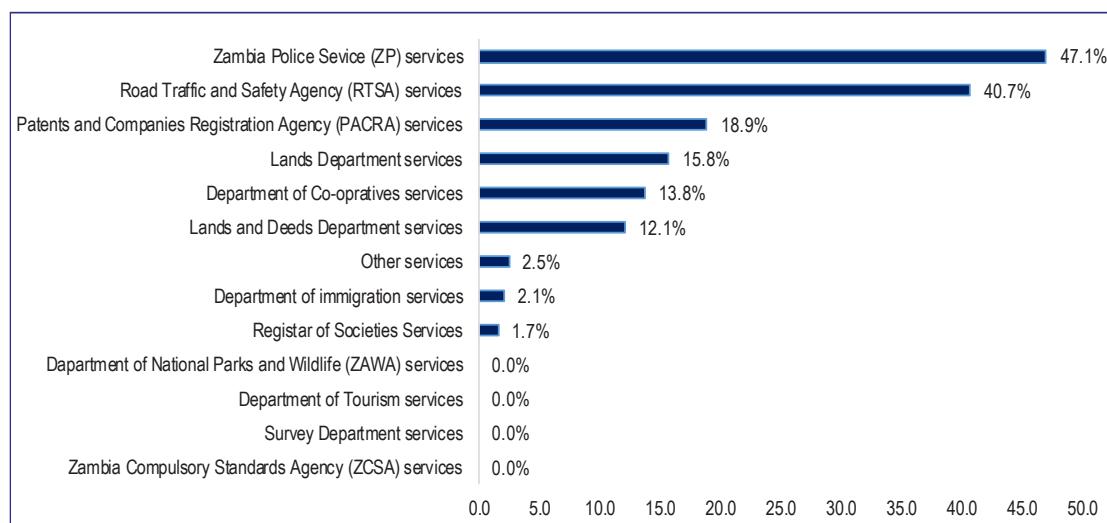
Figure 171: Household Usage of the GSB by Sex of Household Head: 2022



6.1.2. Types of GSB Services used by Households

The most widely used GSB services by households were those offered by the Zambia Police Service (ZP) and the Road Transport and Safety Agency (RTSA). Specifically, 47.1 percent of households that had used the GSB before accessed ZP services while 40.7 percent accessed RTSA services. Other commonly used GSB services amongst households included service offered by Patents and Companies Registration Agency (PACRA), Lands Department, Department of Co-operatives and the Lands & Deeds Departments.

Figure 172: Household Usage of GSB by Type of Service; 2022



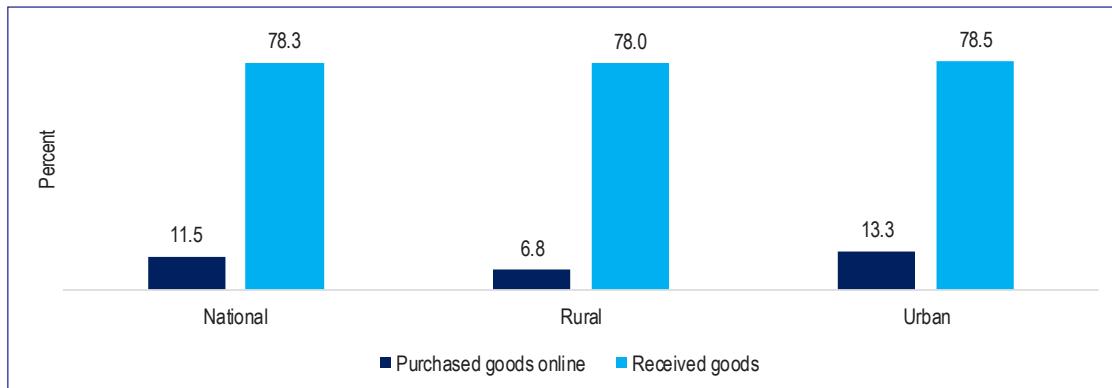
6.2. Usage of Electronic Services by Individuals

6.2.1. Electronic-Commerce Usage

The survey assessed the prevalence of purchasing goods and/or services online, or engaging in e-commerce activities, by individuals who were 10 years and older. It was estimated that 11.5 percent of internet users had engaged in e-commerce activities prior to the survey. Participation in e-commerce was higher among the urban population than the rural population as 13.3 percent of internet users in urban areas had engaged in e-commerce before compared to 6.8 percent of the internet users in rural areas. The

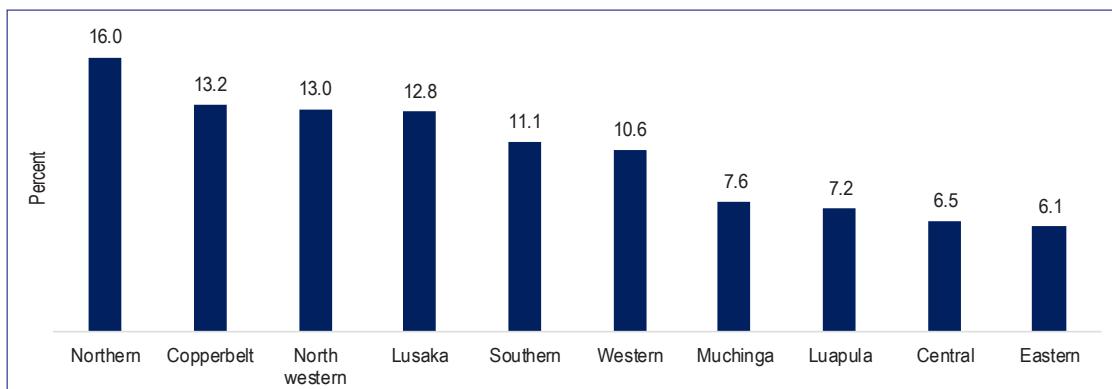
majority of individuals aged 10 years and older that had participated in e-commerce had received their goods/services constituting 78.3 percent.

Figure 173: Usage of e-Commerce by Region; 2022



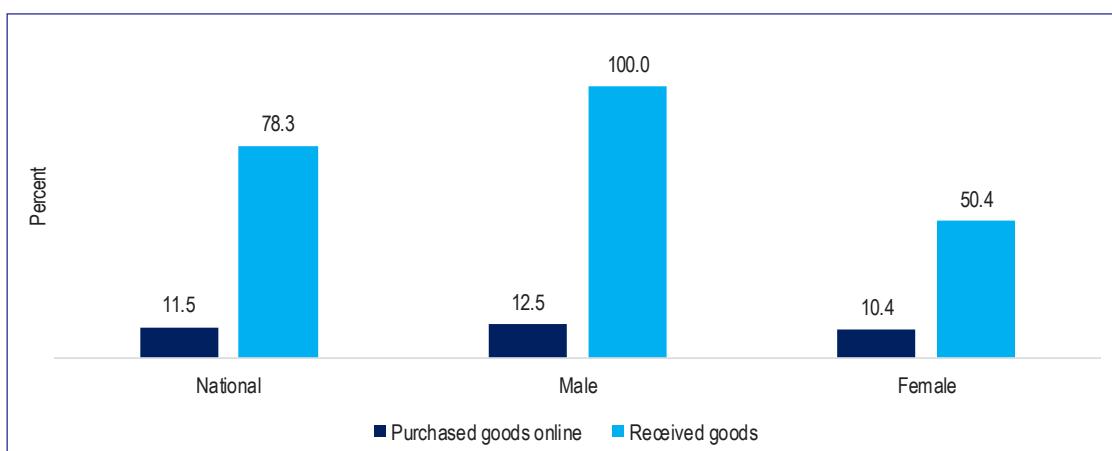
Usage of e-commerce was highest in the Northern Province at 16.0 percent followed by Copperbelt, North-Western, Lusaka, Southern and Western Provinces estimated at 13.2 percent, 13.0 percent, 12.8 percent, 11.1 percent and 10.6 percent respectively. On the other hand, the proportion of individuals using e-commerce in Muchinga, Luapula, Central and Eastern Province was significantly below the national average.

Figure 174: Usage of e-Commerce by Provinces; 2022



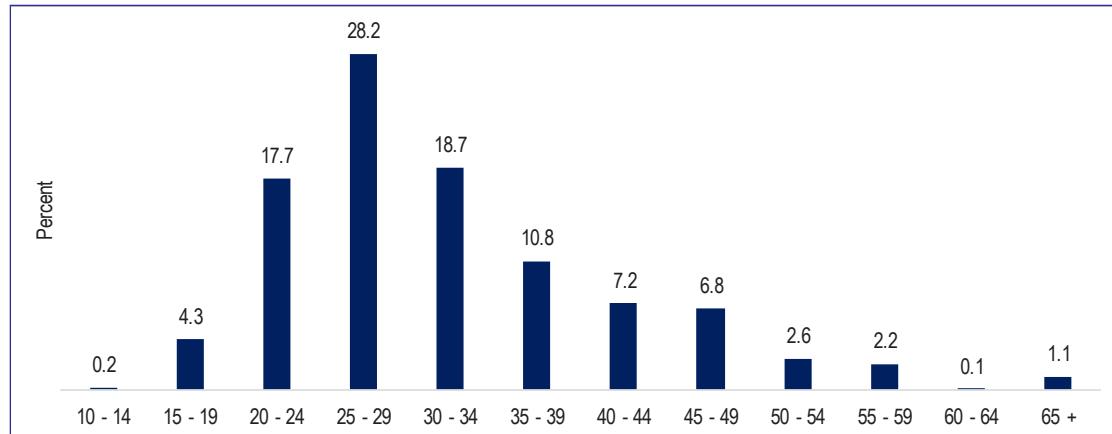
The survey further established that e-commerce usage was more pronounced among male internet users than female internet users. Specifically, 12.5 percent of males aged 10 years and older had used e-commerce before compared to 10.4 percent of females. However, the proportion of male e-commerce users that had received goods/services purchased online was about twice as high as that of female users.

Figure 175: Usage of e-Commerce by Sex; 2022



With regards to age, it was observed that usage of e-commerce platforms was most prevalent amongst individuals aged between 19 and 40 years, accounting for 75.0 percent of all e-commerce users.

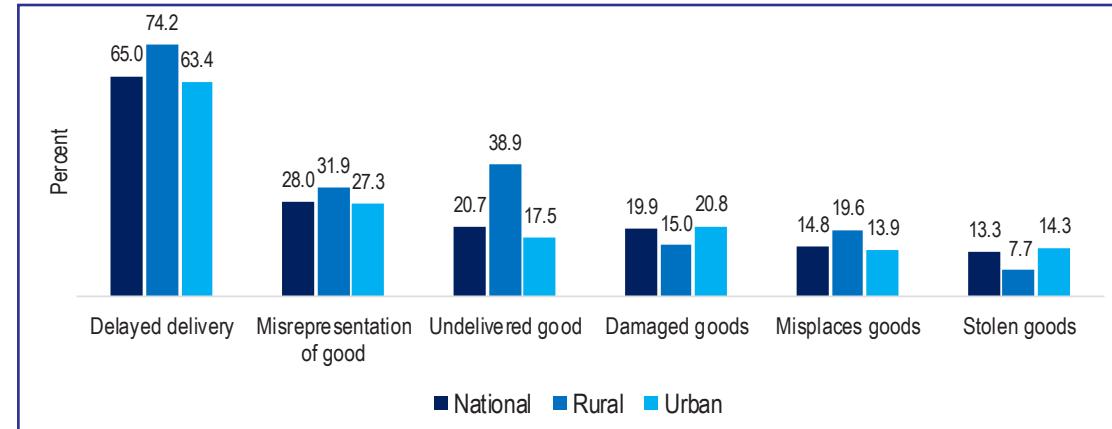
Figure 176: Usage of e-Commerce by Age; 2022



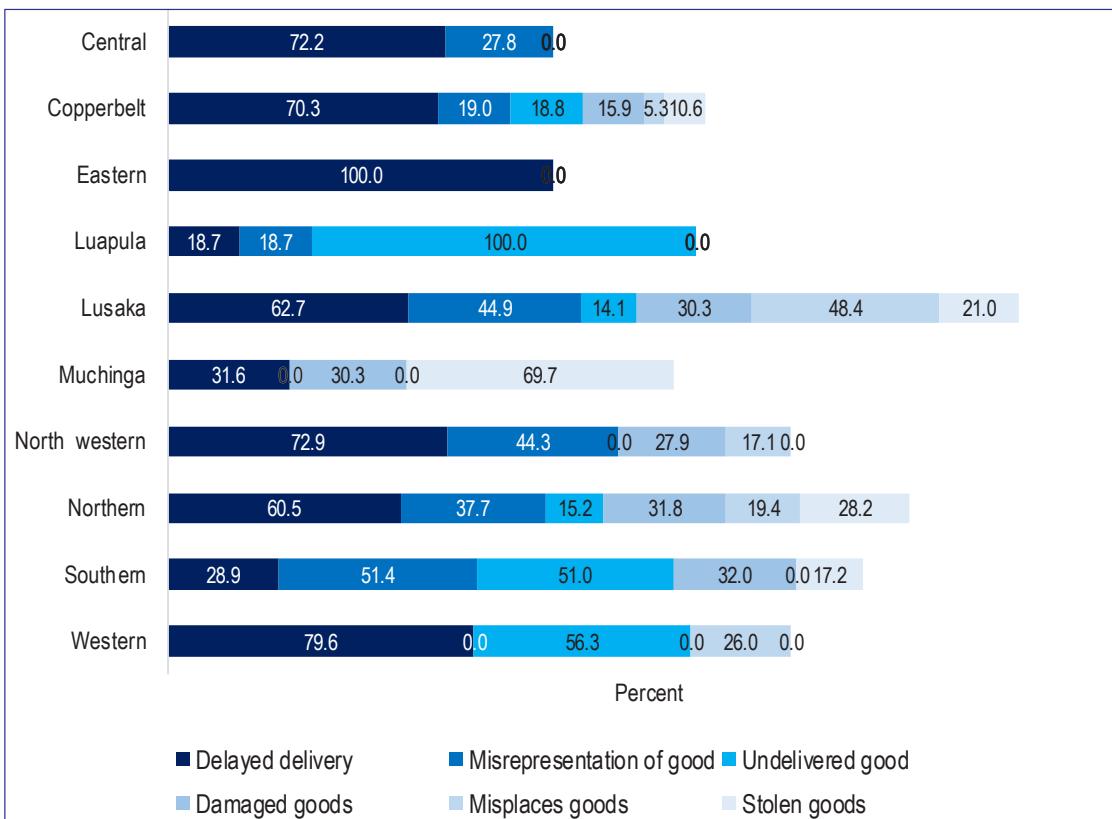
6.2.2. Challenges Encountered when Using e-Commerce

The survey results showed that the challenges encountered by users of e-commerce were mostly related to delayed delivery of goods and/or services which was reported by 65.0 percent of the individuals that participated in e-commerce activities. Most of the challenges related to e-commerce were more prevalent amongst e-commerce users in rural areas compared to those in urban areas with the exception of losing goods by theft and damage to goods which were more prevalent amongst urban users.

Figure 177: Challenges Faced during Usage of e-Commerce; 2022

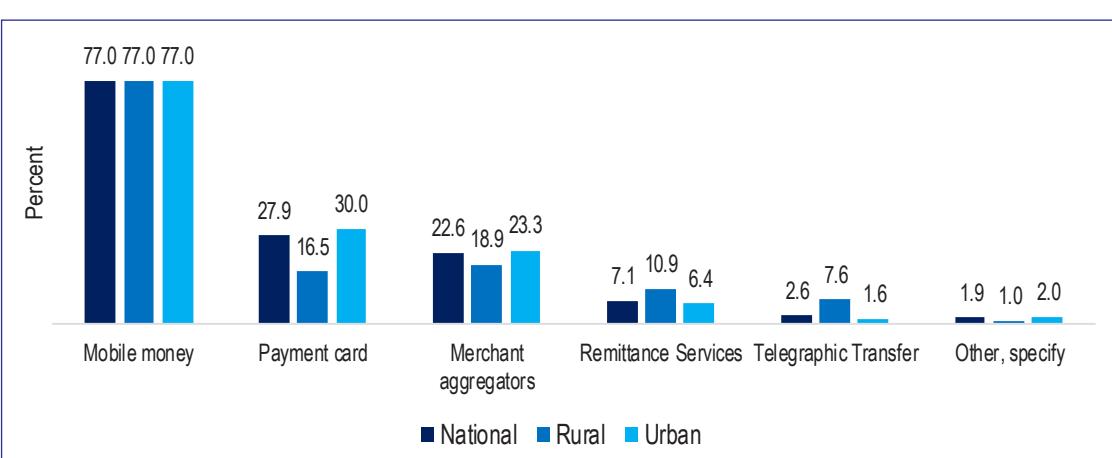


Delayed delivery was observed to be the most prevalent challenge among e-commerce users in most of the provinces. In particular, all the users of e-commerce in Eastern Province cited delayed delivery as the only challenge they had encountered while undelivered goods was cited as a challenge encountered by all the e-commerce users in Luapula Province.

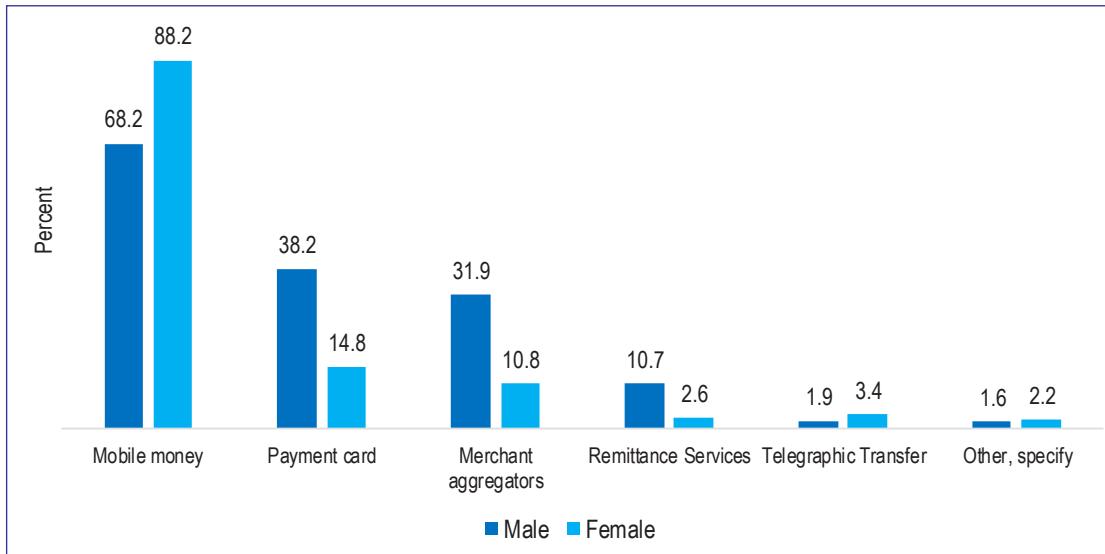
Figure 178: Challenges Faced during Usage of e-Commerce by Province; 2022

6.2.3. Modes of payment for online purchase for goods and services

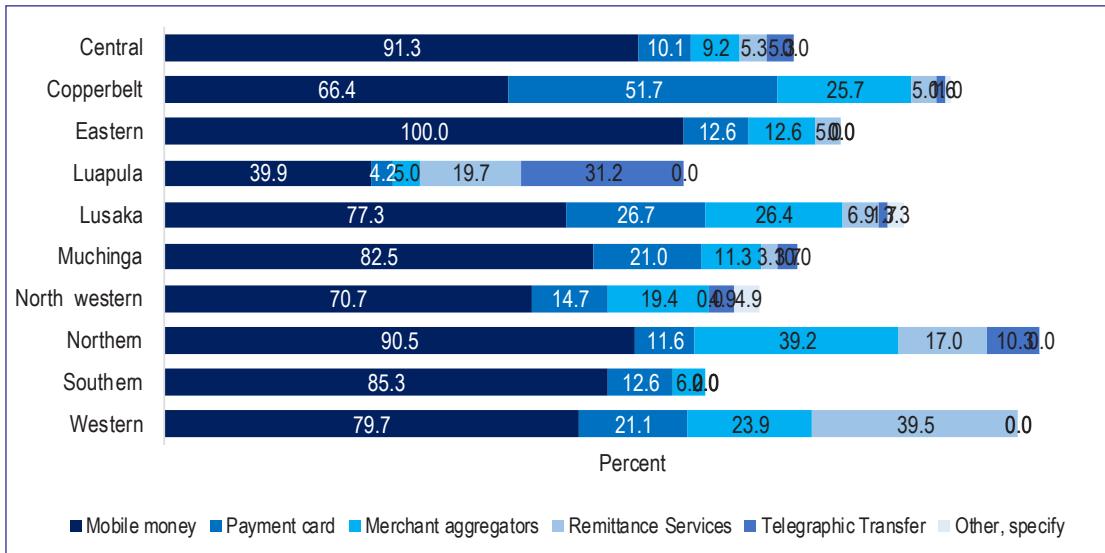
Mobile money was observed to be the most commonly used mode of payment for e-commerce transactions accounting for 77.0 percent of individuals that participated in e-commerce. The use of payment cards and merchant aggregators was also noted to be quite prominent among e-commerce users, especially among users in urban areas. Further, usage of remittance services and telegraphic money orders for online purchases was relatively high among rural-based users than those in urban areas.

Figure 179: Modes of Payment for e-Commerce Users, 2022

It was further established that the majority of male and female e-commerce users used mobile money to pay for online purchases. However, the proportion of male e-commerce users that used payment cards, merchant aggregators and remittances to pay for their online purchases was relatively higher than that of females.

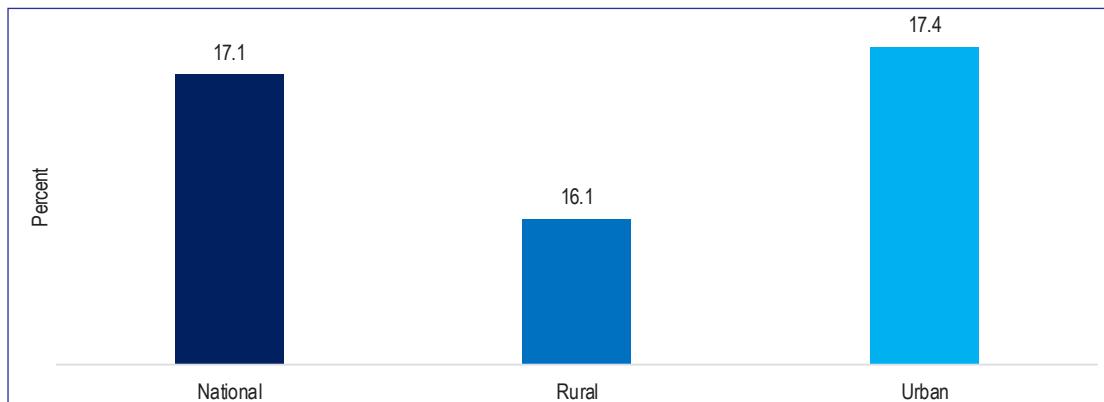
Figure 180: Modes of Payment for e-Commerce Users by Sex, 2022

An analysis of e-commerce payment platforms by province showed that mobile money was the most prevalent mode of payment in all the provinces. Notably, all Eastern Province e-commerce users surveyed reported having used mobile money payments for online purchases. Mobile money was also noted to be a commonly used mode of payment for e-commerce transactions in Central, Northern and Southern Province.

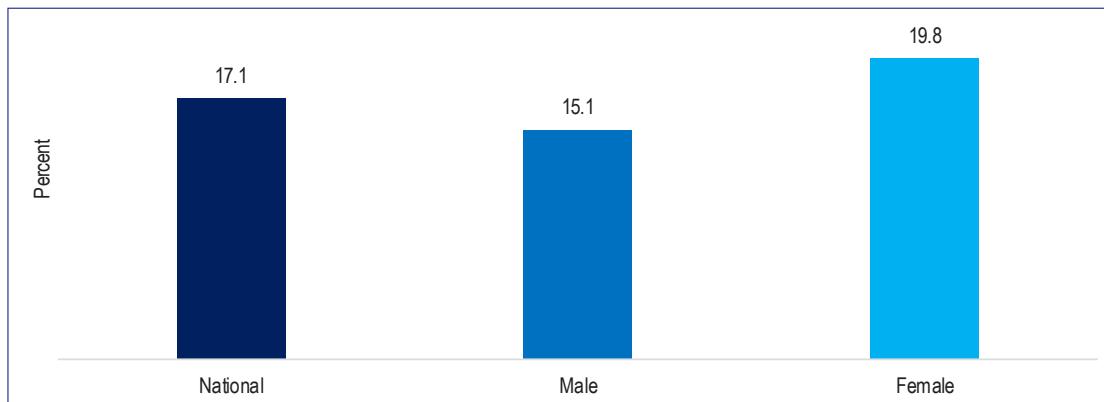
Figure 181: Modes of Payment for e-Commerce Users by Province, 2022

6.2.4. Challenges Faced by e-Commerce Users by Mode of Payment

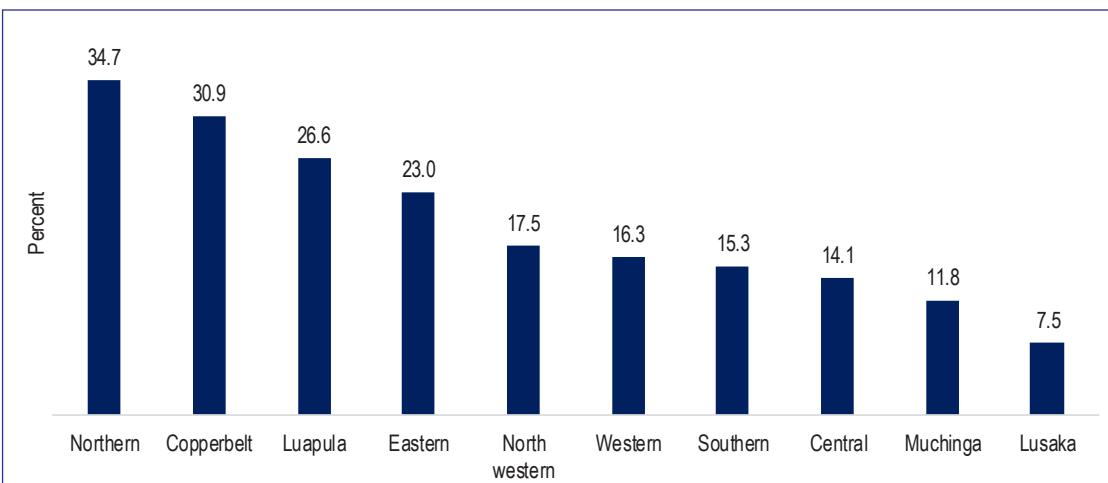
The survey sought to determine the proportion of e-commerce users that had experienced challenges with the various modes of payment used for online purchases. It was estimated that 17.1 percent of e-commerce users had experienced some challenges with an online purchase mode of payment. These challenges were relatively more prevalent among urban-based users than rural-based users.

Figure 182: e-Commerce Users Challenges with Modes of Payment, 2022

The study further showed that challenges associated with modes of payment used for online purchases were more predominant among females than males. Specifically, 19.8 percent of female e-commerce users reported having experienced challenges with the various modes of payments used for online purchases while 15.1 percent of male e-commerce users encountered such challenges.

Figure 183: Challenges e-Commerce Users with Modes of Payment by Sex, 2022

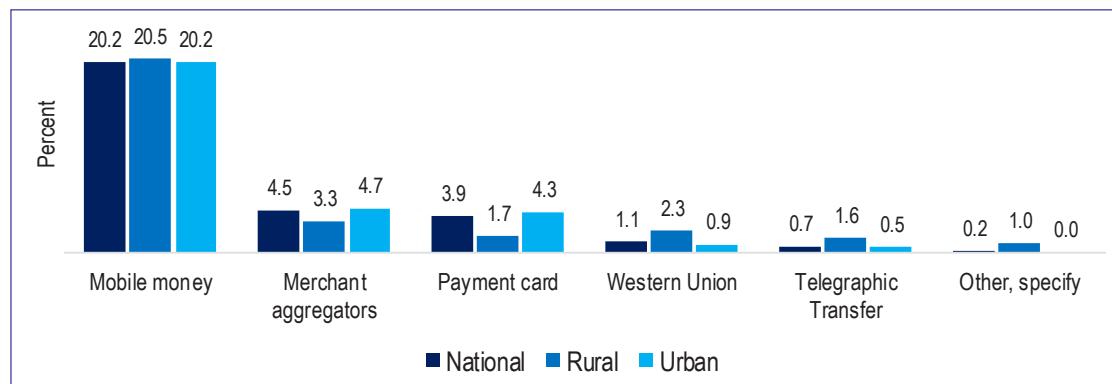
An assessment of challenges associated with modes of payment for e-commerce activities by province revealed that these challenges were most prevalent amongst e-commerce users in Northern Province accounting for 34.7 percent of users in the province. The prevalence of challenges associated with modes of payment for online purchases was also observed to be high among e-commerce users in the Copperbelt, Luapula and Eastern Provinces.

Figure 184: e-Commerce Users Challenges with Modes of Payment by Province, 2022

6.2.5. Modes of Payment for e-Commerce Associated with Challenges

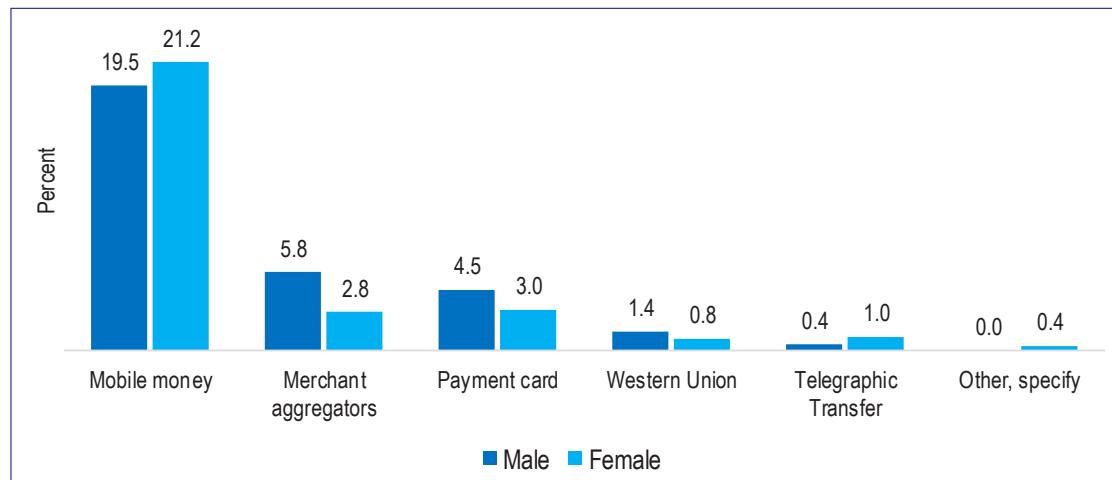
The survey established that 20.2 percent of e-commerce users that used mobile money reported to have experienced difficulties in transacting followed by those using merchant aggregators and payment cards at 4.5 percent and 3.9 percent respectively. Further, challenges with transacting through merchant aggregators and payment cards were predominant among urban-based e-commerce users while challenges with transacting through Western Union and telegraphic money orders were prevalent among rural-based users.

Figure 185: e-Commerce Users Challenges with Modes of Payment by Province, 2022

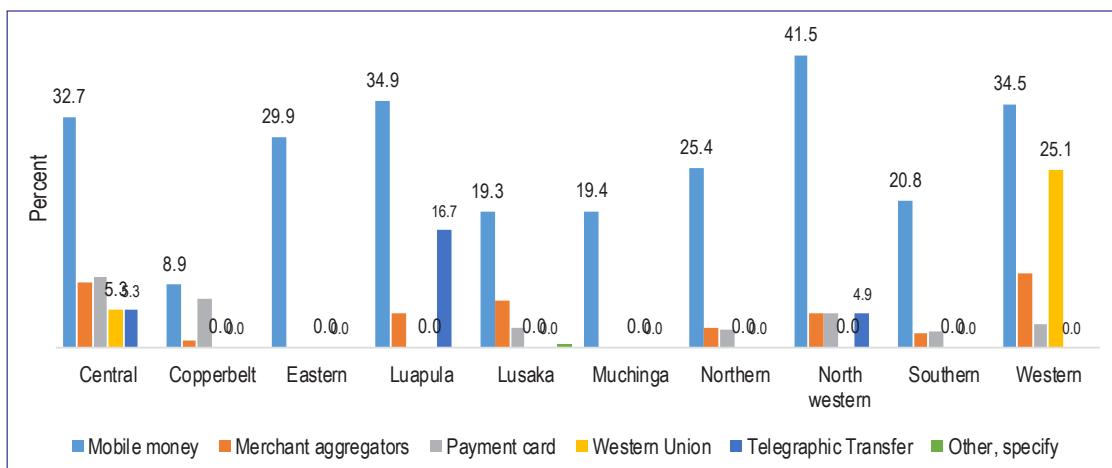


With regards to sex, more females experienced challenges with mobile money when purchasing goods/services online than their male counterparts. However, the occurrence of these challenges was higher among males that transacted using merchant aggregators, payment cards and Western Union for e-commerce than females that used these platforms.

Figure 186: e-Commerce Users Challenges with Modes of Payment by Sex, 2022

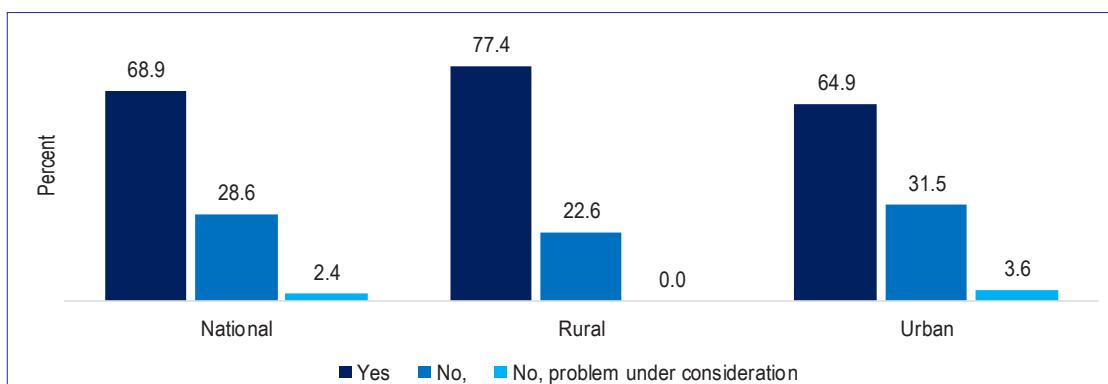


The study further revealed that challenges associated with mobile money when purchasing goods/services online were quite prevalent in all provinces. North-Western Province reported the highest proportion of individuals that had experienced challenges with mobile money transactions among e-commerce users accounting for 41.5 percent followed by Luapula, Western and Central Provinces at 34.9 percent, 34.5 percent and 32.7 percent respectively. The Copperbelt Province reported the lowest prevalence of challenges associated with transacting on mobile money among e-commerce users. On the other hand, Luapula and Western Province were observed to have a high proportion of e-commerce users that encountered challenges when transacting with telegraphic transfers and Western Union respectively.

Figure 187: e-Commerce Users Challenges with Modes of Payment by Province, 2022

6.2.6. Type of Redress for Challenges Faced when Purchasing Goods and Services Online

The survey revealed that 68.9 percent of e-commerce users that reported payment challenges when conducting e-commerce activities had these challenges resolved while 28.6 percent were unresolved at the time of the survey. However, 2.4 percent of e-commerce users that faced challenges reported that their challenges were still under investigation at the time of the survey. By region, there were more individuals whose challenges were resolved among rural-based e-commerce users than among urban-based users.

Figure 188: Redress of Challenges Associated with e-Commerce, 2022

Redress of e-commerce challenges was observed to be higher among male e-commerce users than female users. However, most of the unresolved challenges for e-commerce transactions were noted to be among female e-commerce users.

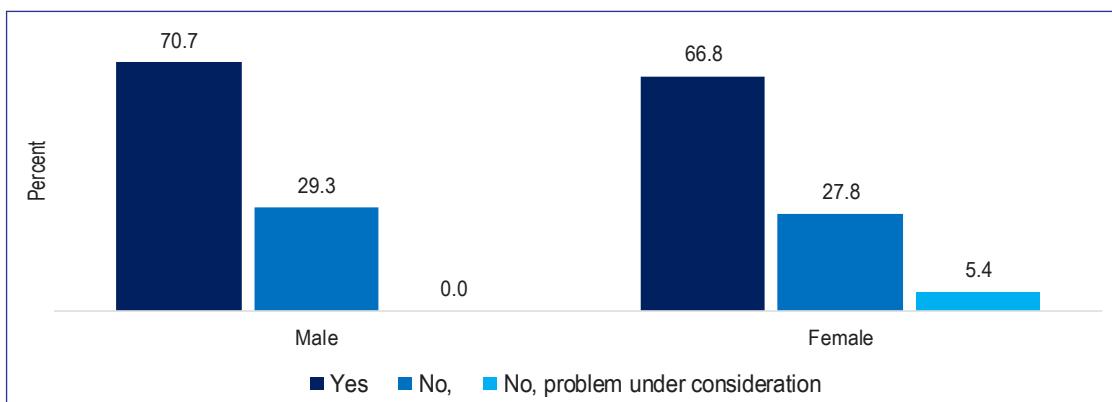
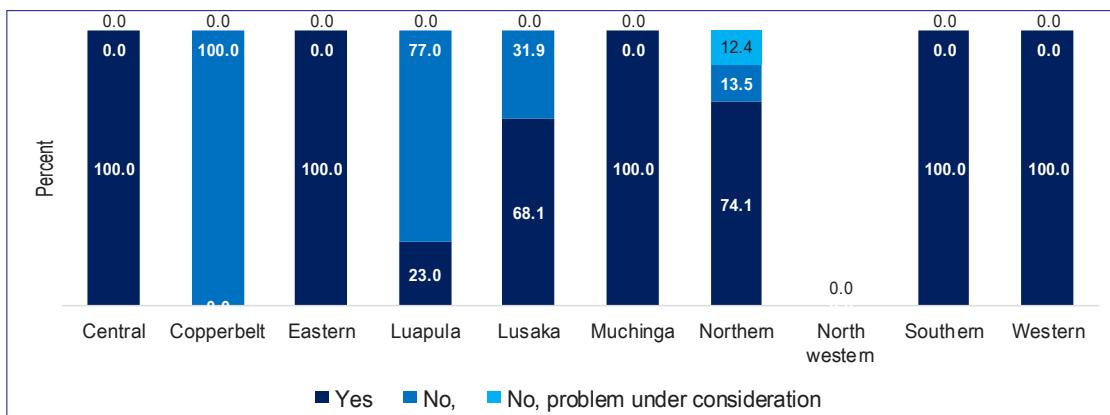
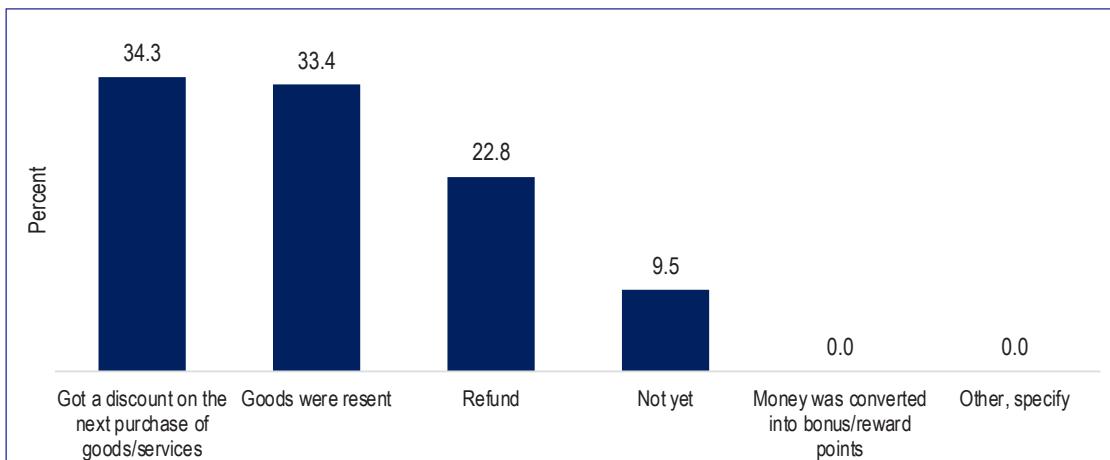
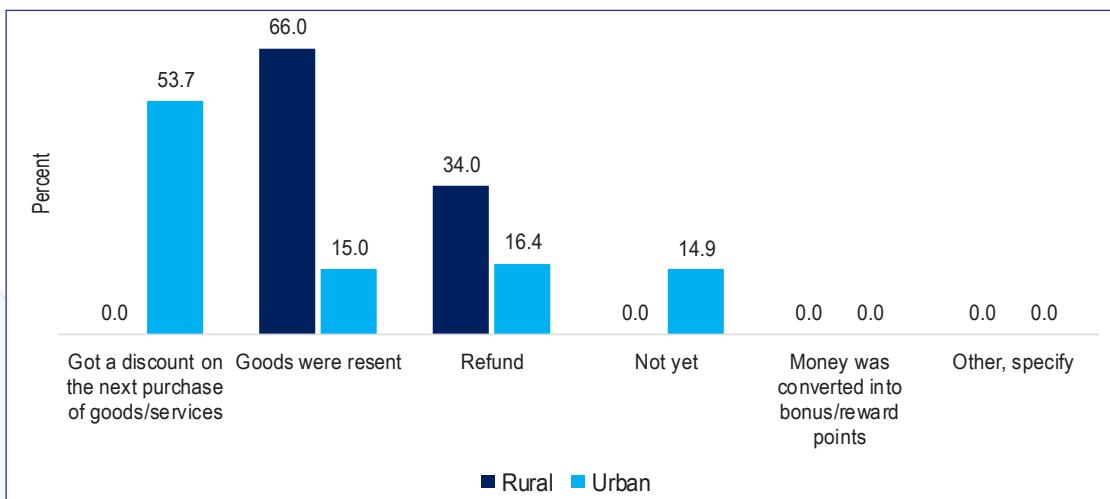
Figure 189: Redress of Challenges Associated with e-Commerce by Sex, 2022

Figure 190: Redress of Challenges Associated with e-Commerce by Sex, 2022

The survey further established that most individuals that had acquired redress for payment challenges encountered when conducting e-commerce activities had gotten a discount on their next purchase. Particularly, 34.3 percent of e-commerce users whose transaction challenges had been addressed got a discount on their next purchase while 33.4 percent had their goods resent and 22.8 percent were refunded.

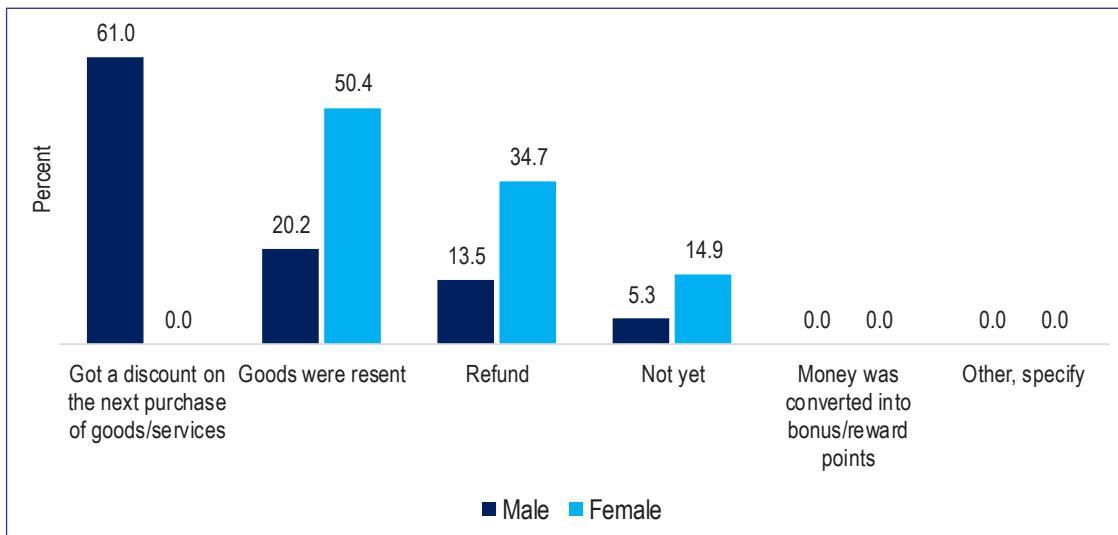
Figure 191: Nature of Redress for Challenges Associated with e-Commerce, 2022

Notably, discounts on the next purchase was a common redress mechanism accorded to urban-based e-commerce users accounting for 53.7 percent of redressed challenges while resending of good/services was more common among rural-based users representing 66.0 percent of redressed challenges.

Figure 192: Nature of Redress for Challenges Associated with e-Commerce by Region, 2022

With regards to sex, the most common redress mechanism among male e-commerce users was discounts on their next purchase while resending of goods and refunds were more common among female users.

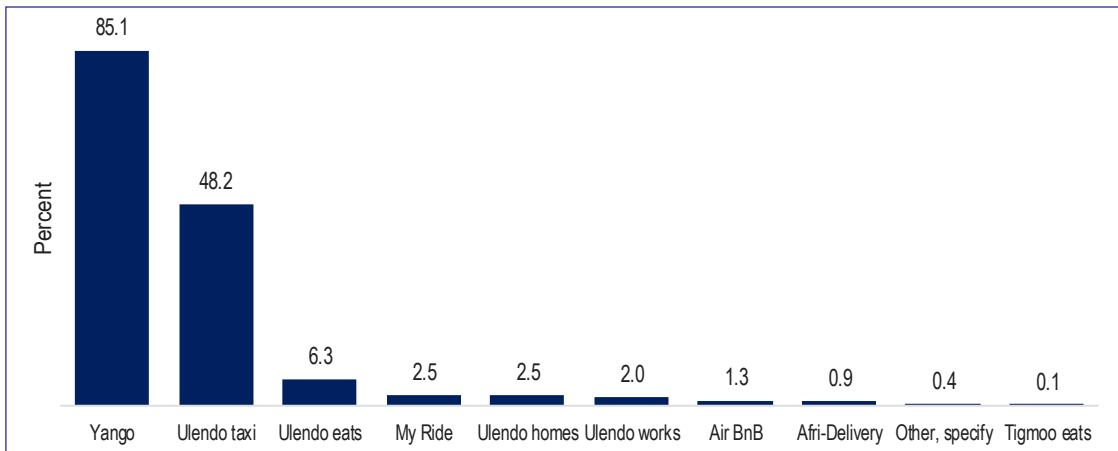
Figure 193: Nature of Redress for Challenges Associated with e-Commerce by Sex, 2022



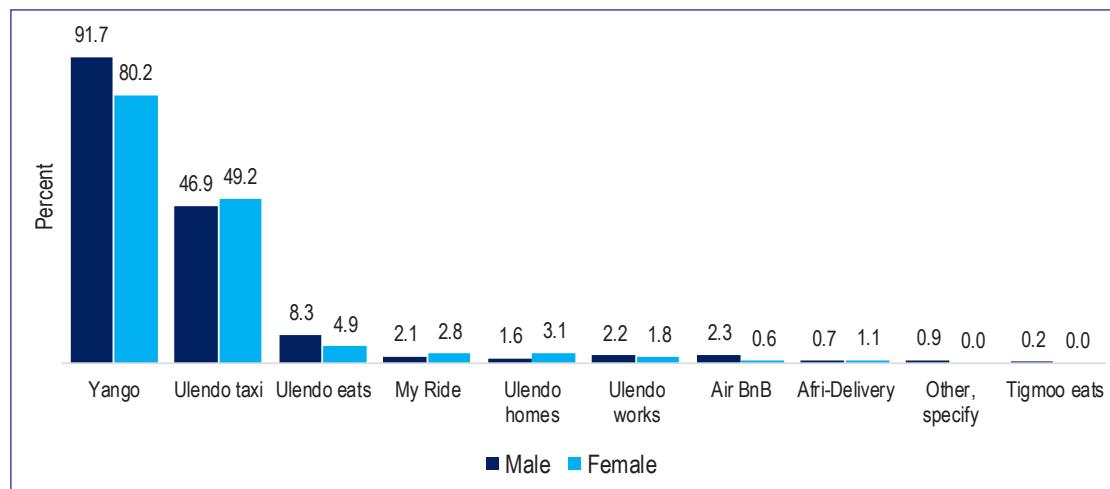
6.2.7. Usage of App-based freelance services

The majority of e-commerce users aged 10 years and older indicated that they had used online taxi services more than other app-based services constituting courier, accommodation and food delivery services. Particularly, the use of Yango and Ulendo among e-commerce users was high at 85.1 percent and 48.2 percent respectively. However, the usage of other app-based freelance services was comparatively low.

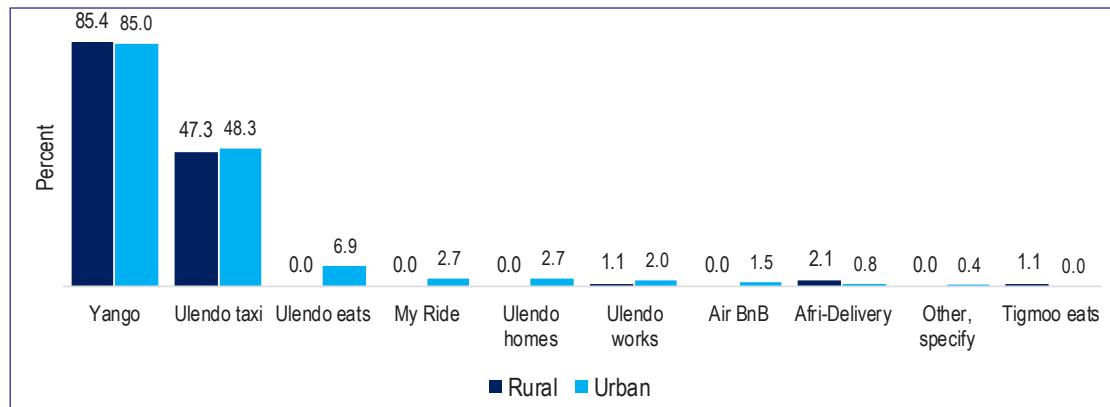
Figure 194: Usage of App-based Freelance Services, 2022



The survey results also showed that the use of Yango was slightly higher among males than females. Specifically, the proportion of male e-commerce users that used Yango accounted for 91.7 percent while 80.2 percent of female e-commerce user used the platform. Ulendo taxi was also observed to be a commonly used app-based freelance service among e-commerce users. There were more users of Ulendo taxi among female e-commerce users than they were among male e-commerce users.

Figure 195: Usage of App-based Freelance Services by Sex, 2022

The usage of Yango and Ulendo taxi applications among urban-based and rural-based e-commerce users was high compared to other app-based freelance services. It was also observed that there were minimal differences in the proportion of users of Yango and that of Ulendo Taxi in rural and urban areas. However, Ulendo eats, my ride and Ulendo homes applications were popular among e-commerce users in urban areas.

Figure 196: Usage of App-based Freelance Services by Region, 2022



CHAPTER

7

ACCESS AND USAGE OF DIGITAL FINANCIAL SERVICES AMONG HOUSEHOLDS AND INDIVIDUALS

7. ACCESS AND USAGE OF DIGITAL FINANCIAL SERVICES AMONG HOUSEHOLDS AND INDIVIDUALS

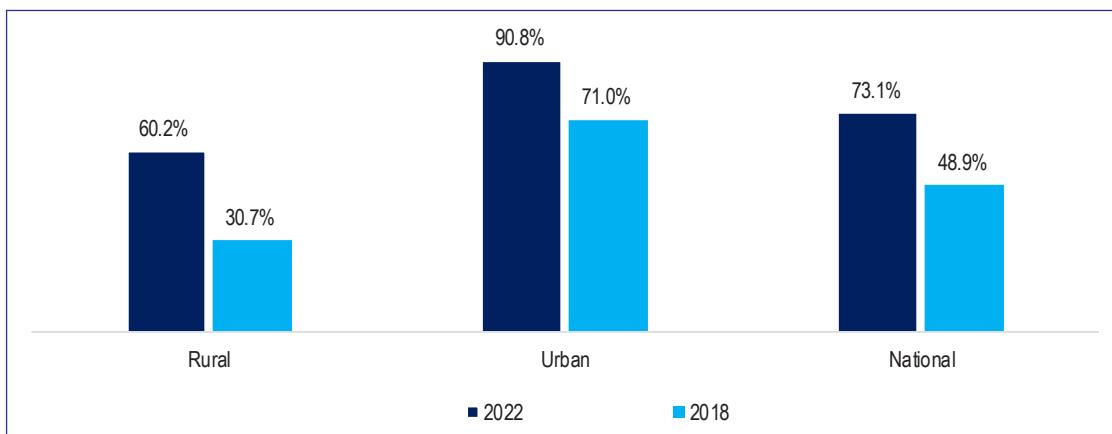
This chapter highlights the findings of the 2022 National Survey on Access and Usage of ICTs by Households and Individuals related to the extent of adoption of Digital Financial Services (DFS) by households and individuals aged 10 years and older in Zambia. An assessment was made within various demographic and socio-economic groupings and across the strata regarding various attributes related to DFS. To the extent possible, an attempt was made to explain some of the factors that had inhibited extensive adoption and usage of DFS in the country. The chapter also highlights some of the most widely adopted Digital financial services and preferred types of services in the country with a view to establishing the responsiveness of providers to households' and individuals' needs. It also explores the extent of adoption of emerging technology related financial products such as crypto-currencies. Some aspects related to regulatory initiatives by the Authority and the Central Bank such as awareness of risks while using DFS such as money laundering and scams are also presented.

7.1. Access and Usage of Digital Financial Services by Households

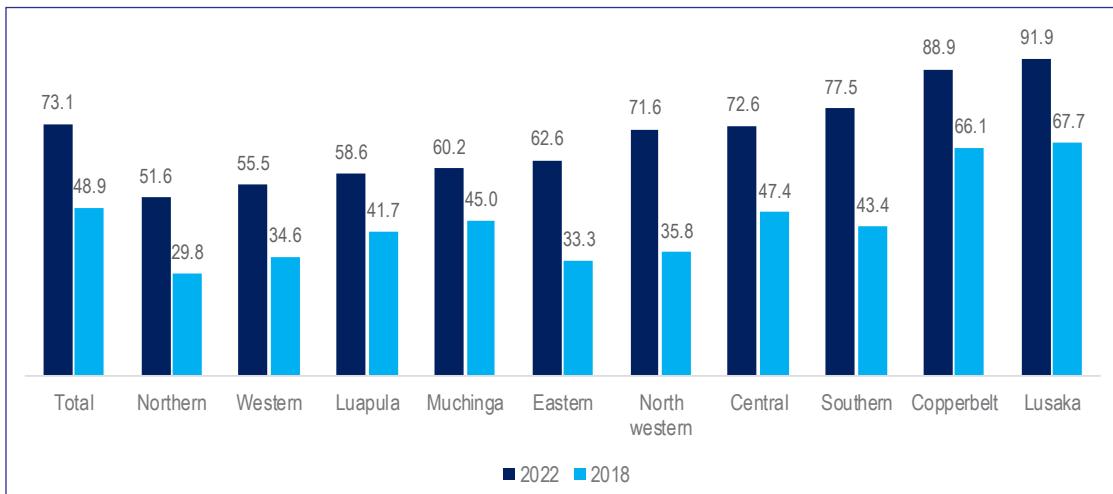
7.1.1. Usage of Digital Financial Services by Households

The survey revealed that 73.1 percent of all the households across the country had used DFS at least once reflecting a positive improvement from 48.9 percent reported in 2018. However, the proportion of households in urban areas that had used DFS continued to be relatively higher than in rural areas. Specifically, 90.8 percent of the households in urban areas indicated that they had used DFS before in 2022 while only 60.2 percent of households in rural areas reported to have used DFS. In spite of these observed regional trends, there was a marked improvement in usage of DFS in both urban areas and rural areas between 2018 and 2022.

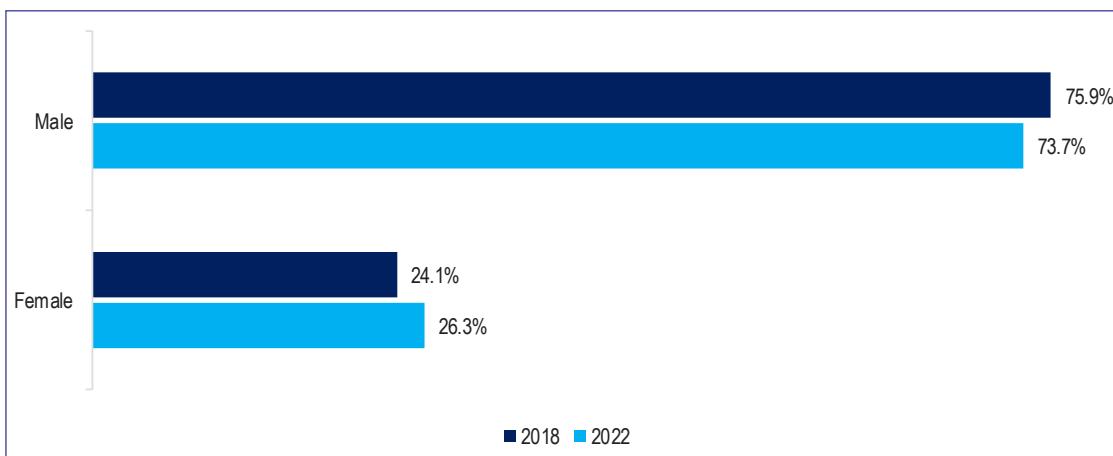
Figure 197: Usage of Digital Financial Services by Households across Regions; 2018-2022



Lusaka, Copperbelt and Southern Provinces had a relatively higher proportion of households that had indicated that they had ever used DFS constituting 91.9 percent, 88.9 percent and 77.5 percent respectively. However, relatively lower levels of usage of DFS by households were observed in Northern, Western and Luapula Provinces accounting for 51.6 percent, 55.5 percent and 58.6 percent respectively. In spite of the observed provincial variations in adoption of DFS, there was an observed improvement in usage of DFS by households in 2022 relative to 2018 across all the provinces.

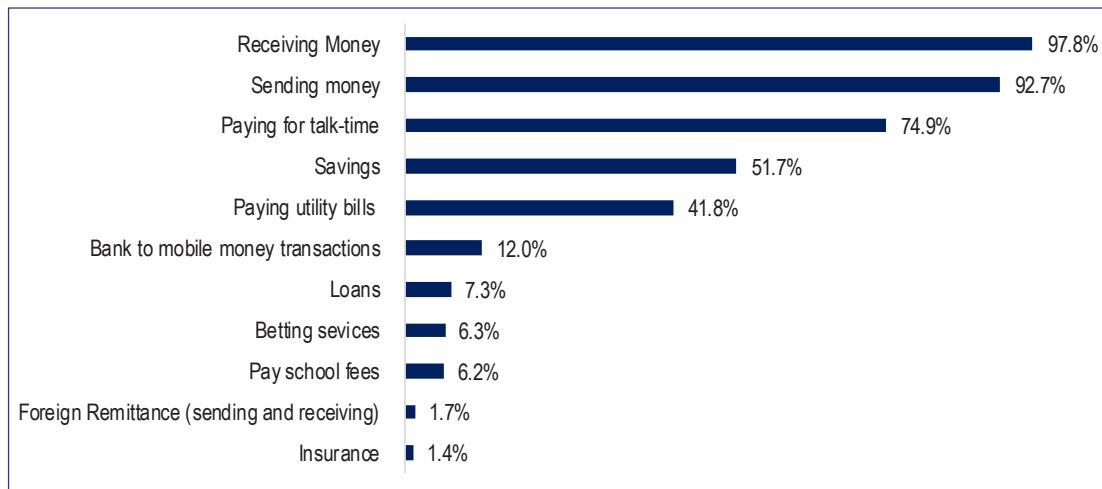
Figure 198: Usage of Digital Financial Services by Households across Provinces; 2022

The proportion of male headed households relative to female headed households that had ever used DFS reduced from 76.0 percent reported in 2018 to 73.7 percent in 2022. Consequently, the proportion of female headed households relative to male headed households that had used DFS increased from 24.1 percent reported in 2018 to 26.3 percent in 2022. The changes in the shares of usage of DFS by sex of head of household reflect that there was an improvement in the share of female headed households that had used DFS compared to the share of male headed households as a total of all the households that had used DFS before. However, these shares are also consistent with the proportion of male headed households and female headed households that exist in the country.

Figure 199: Usage of Digital Financial Services by Sex of Head of Household; 2018-2022

7.1.2. Types of Use for Digital Financial Services by Households

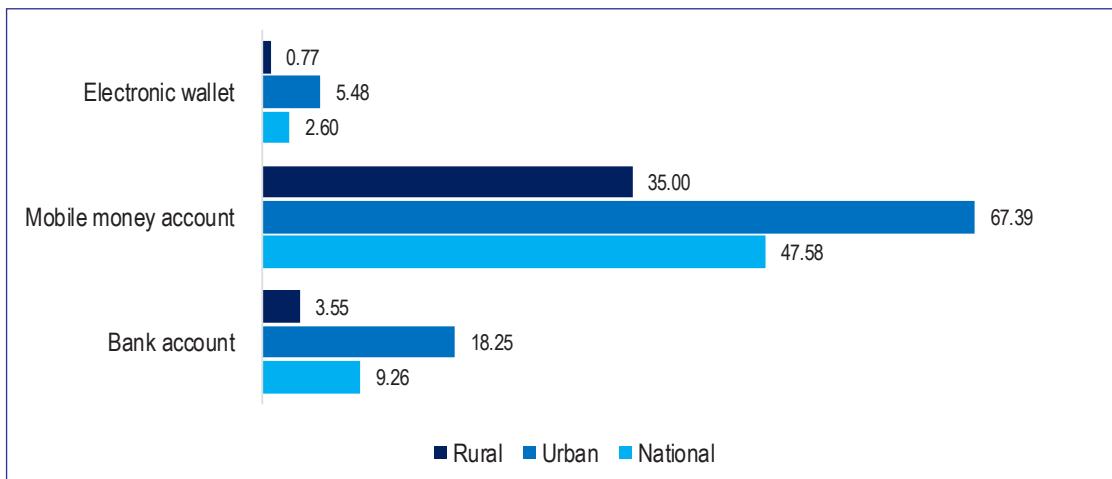
The majority of the households that had used DFS reported that they used the service for receiving money, sending money and buying airtime representing 97.8 percent, 92.7 percent and 74.9 percent respectively. However, only 51.7 percent reported having used DFS for savings purposes while only 41.8 percent of the households reported that they had used DFS for paying utility bills. The use of DFS for applying for loans, making bets and paying school fees accounted for less than 10.0 percent individually with the lowest use cases being foreign remittance and insurance payments which accounted for 1.7 percent and 1.4 percent of households respectively.

Figure 200: Uses for Digital Financial Services by Households; 2022

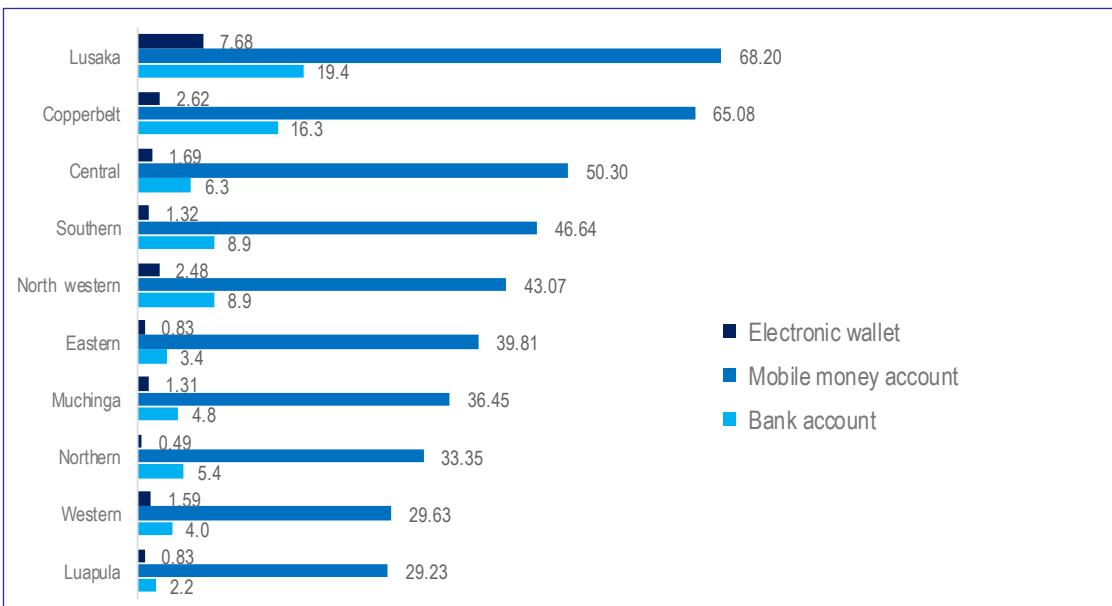
7.2. Access and Usage of Digital Financial Services by Individuals

7.2.1. Ownership of Different Types of Financial Accounts

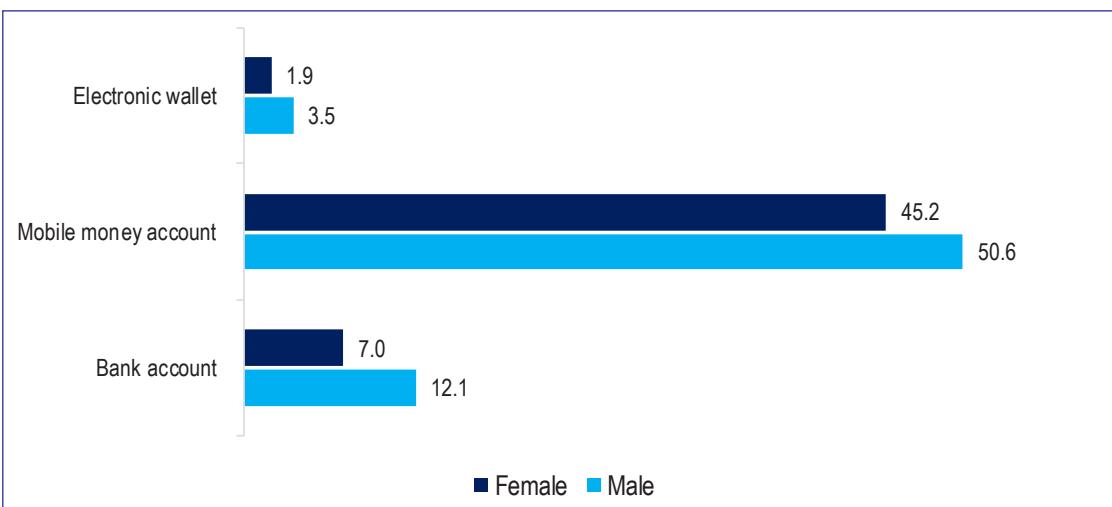
The survey revealed that the most widely held formal financial service accounts were mobile money accounts accounting for 47.6 percent of individuals aged 10 years and older. Only 9.3 percent of the individuals aged 10 years and older held at least one commercial bank account. There were sizeable differences observed in the ownership of the different accounts across regions. Particularly, while 67.4 percent of all the individuals aged 10 years and older that were based in urban areas owned a mobile money account, only 35.0 percent of the rural population aged 10 years and older owned a mobile money account. Similarly, the survey revealed that 18.3 percent of the urban population aged 10 years and older owned a bank account while only 3.6 percent of the rural population aged 10 years and older owned a bank account.

Figure 201: Ownership of Different Types of Accounts by Individuals across Regions; 2022

Lusaka and Copperbelt Provinces had the highest concentration of individuals aged 10 years and above with accounts for undertaking financial transactions. On the other hand, Luapula, Western and Northern Provinces accounted for the lowest concentration of individuals aged 10 years and above with formal financial accounts.

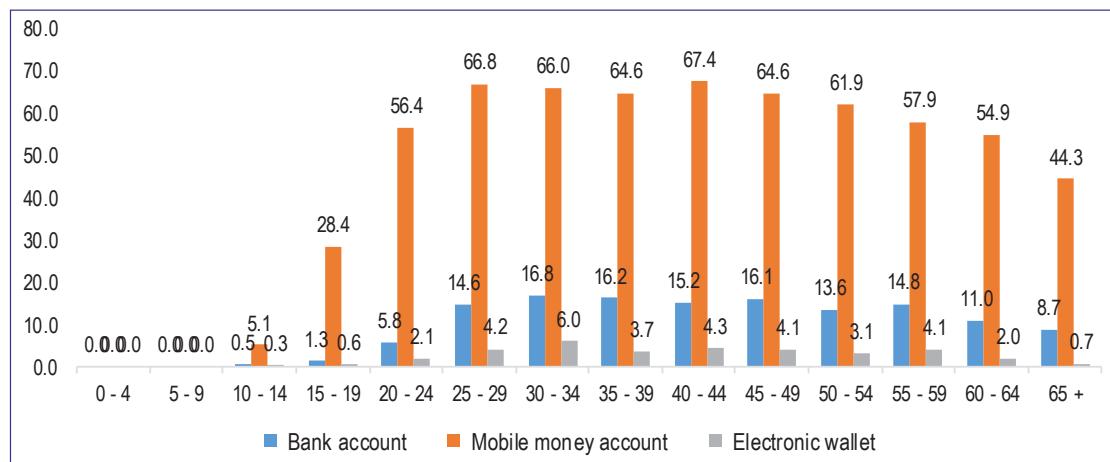
Figure 202: Ownership of Different Types of Accounts within Provinces; 2022

There were negligible differences in ownership of the different types of financial accounts between males and females in the country. However, both sexes accounted for very low levels of ownership of electronic wallets and bank accounts.

Figure 203: Ownership of Different Types of Accounts across Sex; 2022

The survey showed that the users of mobile money are concentrated above the age of 20 with the within group estimates ranging above 65.0 percent between the ages of 25 years and 45 years. The trend is similar for owners of bank accounts with the highest concentration of users ranging between 25 years and 45 years which accounted for around 15.0 percent within the age groups.

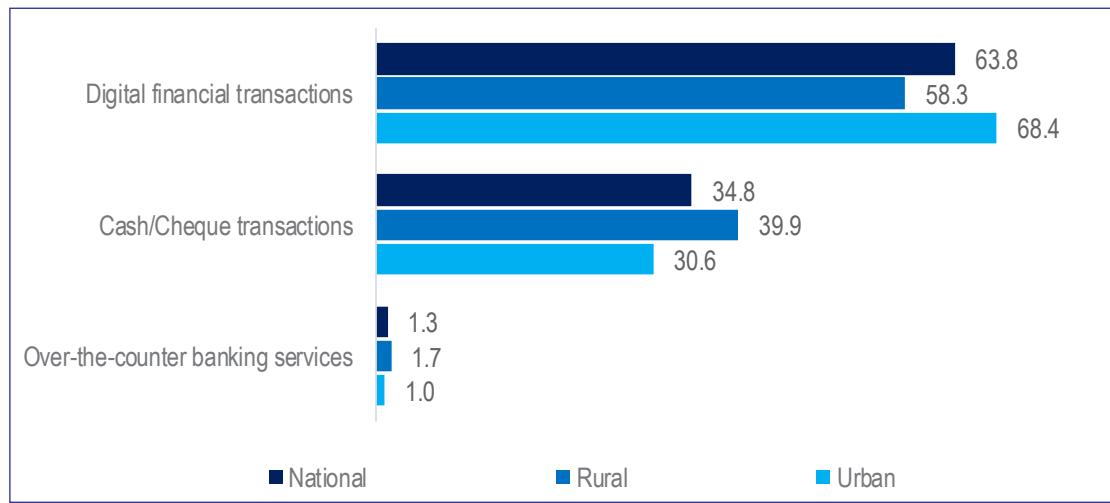
Figure 204: Ownership of Bank accounts and Electronic Wallets by Age Groups; 2022



7.2.2. Most used Mode for Financial Transactions

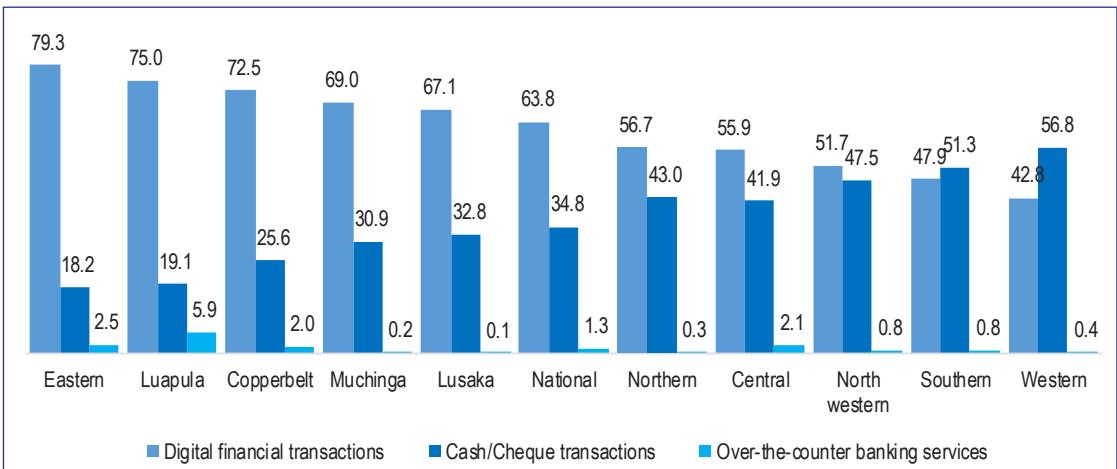
The survey established that the most used mode for financial transactions is digital financial transactions. Nationally, 63.8 percent of individuals reportedly used mostly DFS for financial transactions, followed by cash/cheque transactions at 34.8 percent. Over-the-counter banking services were the least used among the different modes of conducting financial transaction. By region, usage of DFS platforms for financial transaction was higher among urban individuals than in rural areas.

Figure 205: Most Used Mode for Financial Transactions by Individuals within Regions; 2022



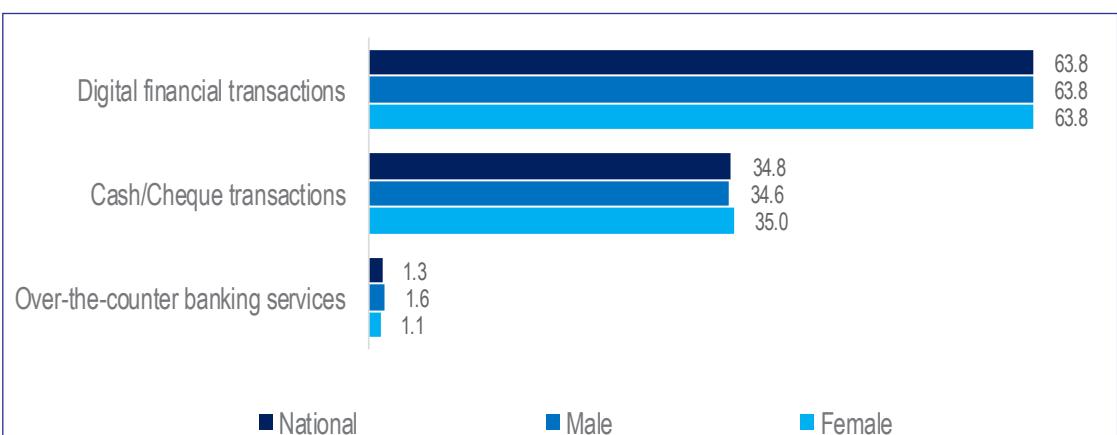
By province, the survey established that Eastern, Luapula and Copperbelt reported very high usage of digital financial transactions as the most used mode for financial transactions at 79.3 percent, 75.0 percent, and 72.0 percent of individuals respectively. On the other hand, individuals in Western and Southern Provinces reported using mostly the cash/cheque transaction mode in preference to other modes.

Figure 206: Most Used Mode for Financial Transactions by Individuals across provinces; 2022



By sex, preference of the mode of conducting financial transactions were reportedly similar among males as well as females. Specifically, 63.8 percent of both males and females indicated that their most used mode for financial transactions is digital financial transactions. Similar, about 35.0 percent of both male and female individuals also indicated that cash//cheque transactions were the most preferred modes.

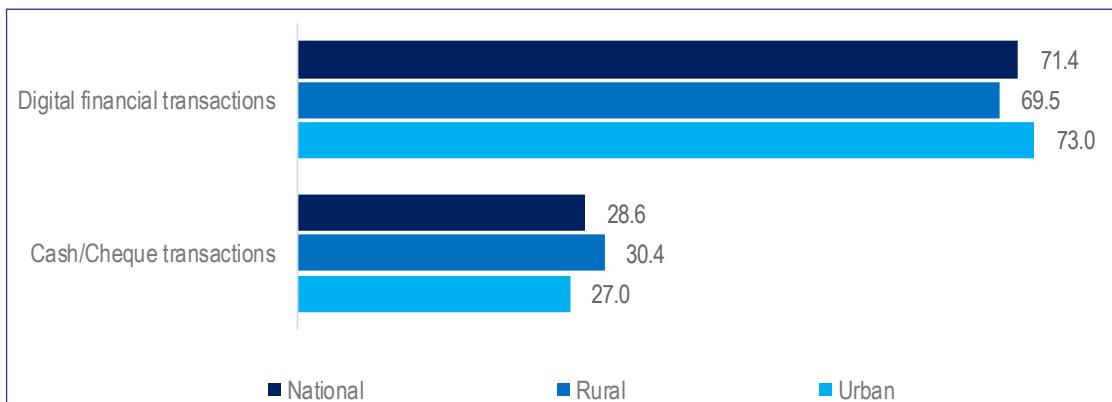
Figure 207: Most Used Mode for Financial Transactions by Individuals within Sex Groups; 2022



7.2.3. Most efficient mode of performing financial transactions

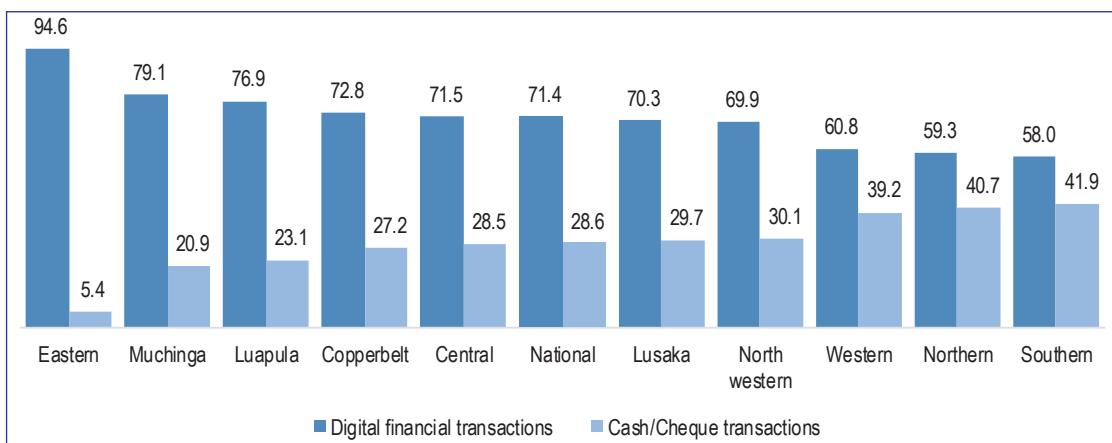
The survey established that about 71.4 percent of individuals consider DFS to be the most efficient mode of performing financial transactions while 28.6 percent do not. By region, among urban individuals DFS are consider efficient while among the rural cash/cheque are considered efficient. Specifically, 73.0 percent of individuals in urban areas consider DFS to be the most efficient mode of performing financial transactions compared to 69.5 percent in rural areas. On the other hand, 30.4 percent of individuals in rural areas feel cash/cheque transactions are more efficient compared to 27.0 percent in urban areas.

Figure 208: Most efficient mode of performing financial transactions by Individuals within Regions; 2022



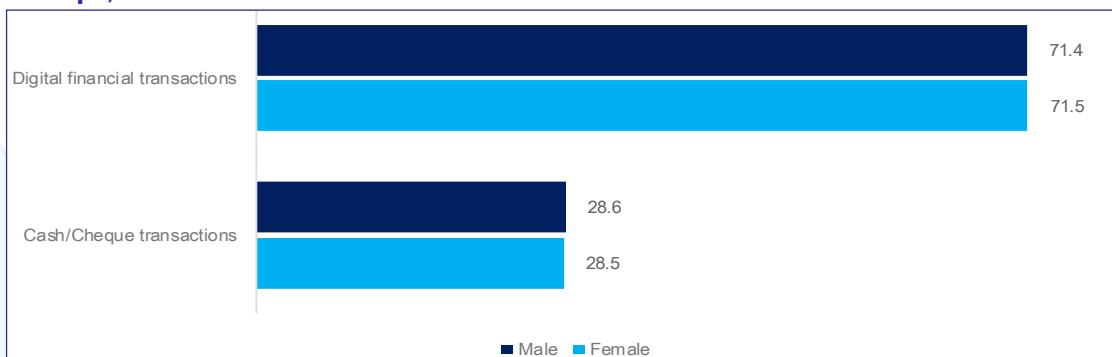
The survey established that most of individuals who consider DFS to be the most efficient mode of performing financial transactions were from Eastern, Luapula, Muchinga, Copperbelt and Central Provinces whereas most of individuals from Southern, Northern and Western consider cash and cheque to be the most efficient mode of performing financial transactions.

Figure 209: Most efficient mode of performing financial transactions by individuals across provinces; 2022



By sex, preferences of the most efficient mode of conducting financial transactions were reportedly similar among males as well as females. Specifically, 71.4 percent of males and 71.5 percent of females indicated that their most efficient mode for financial transactions were the digital financial transactions. Similar, 28.6 percent of male and 28.5 percent of female individuals also indicated that cash/cheque transactions were the most efficient mode.

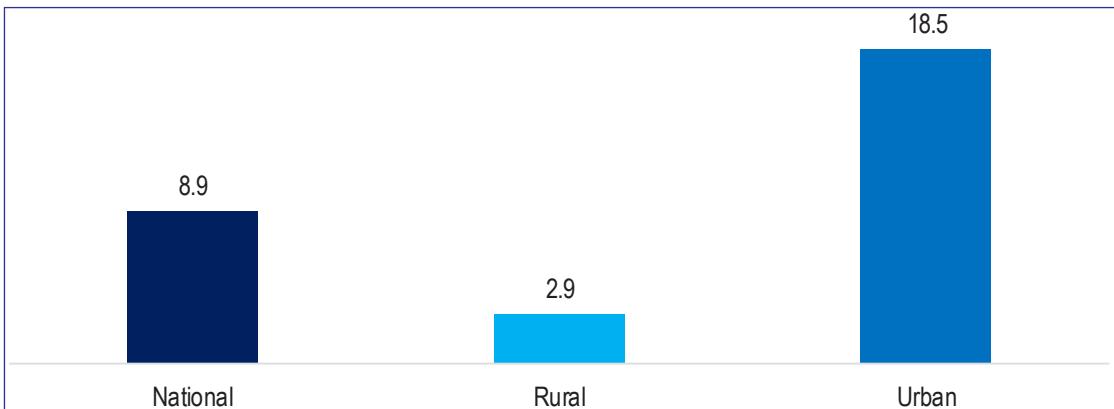
Figure 210: Most efficient mode of performing financial transactions within Sex Groups; 2022



7.2.4. Tax Payer Identification Number (TPIN)

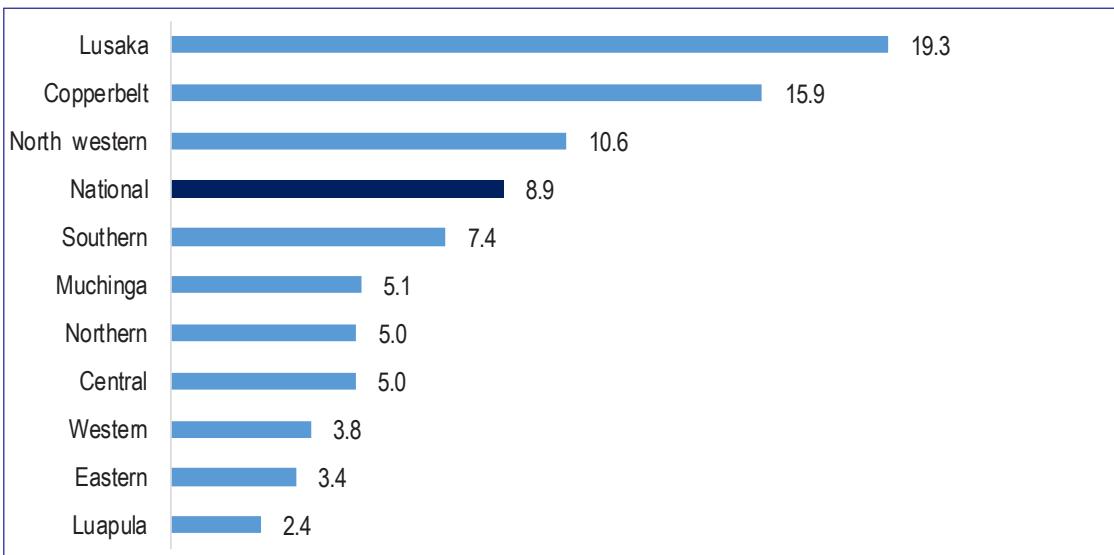
The survey results showed that there were only 8.9 percent of individuals who possessed a TPIN. By region, 18.5 percent of individuals in urban areas possessed TPINs while only 2.9 percent were among individuals in rural areas.

Figure 211: possession of TPIN by Individuals by Region; 2022

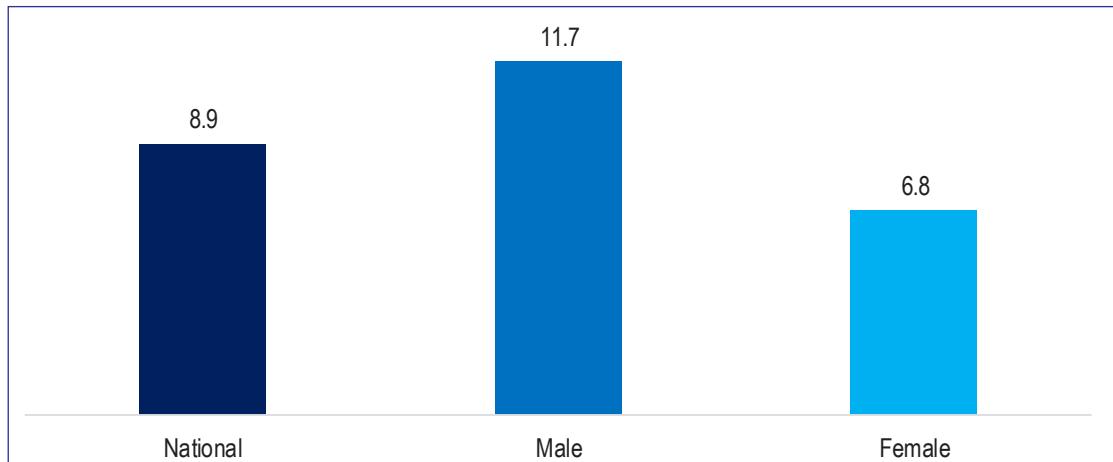


By province, Lusaka, Copperbelt and North-Western had the highest percentage of individuals at 19.3 percent, 15.9 percent and 10.6 percent respectively. On the other hand, Western, Eastern and Luapula reported the lowest percentages of individuals with TPINs at 3.8 percent, 3.4 percent and 2.4 percent respectively.

Figure 212: Possession of TPIN by individuals by province; 2022

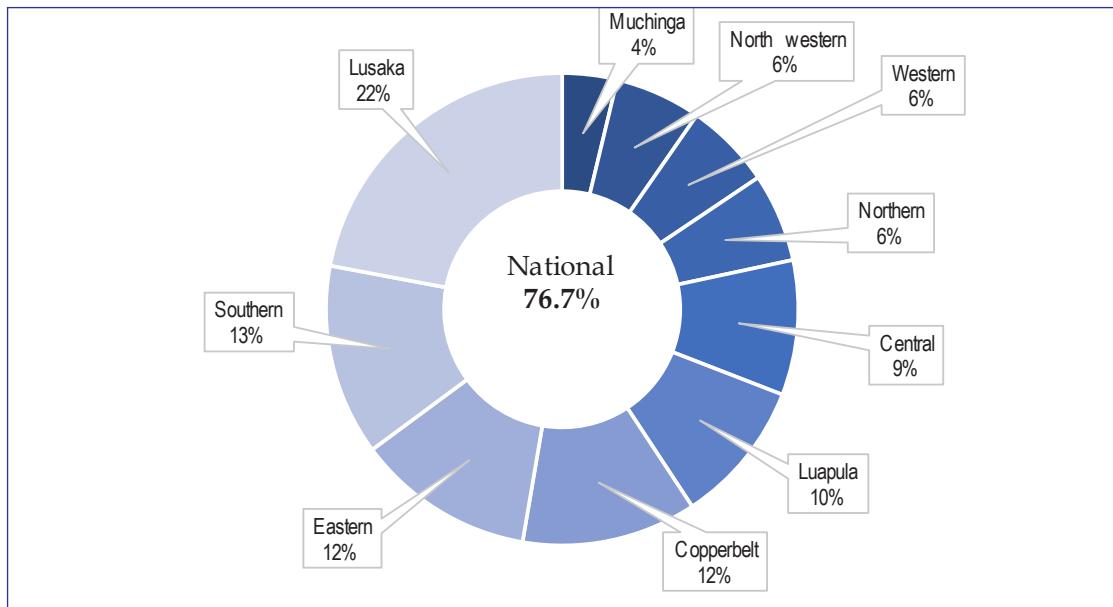


By sex, there were more males that indicated that they possessed a TPIN than females. Possession of TPINs among males was at 11.7 percent while among females it was at 6.8 percent.

Figure 213: Possession of TPIN by sex; 2022

7.2.5. Awareness of Digital Financial Services

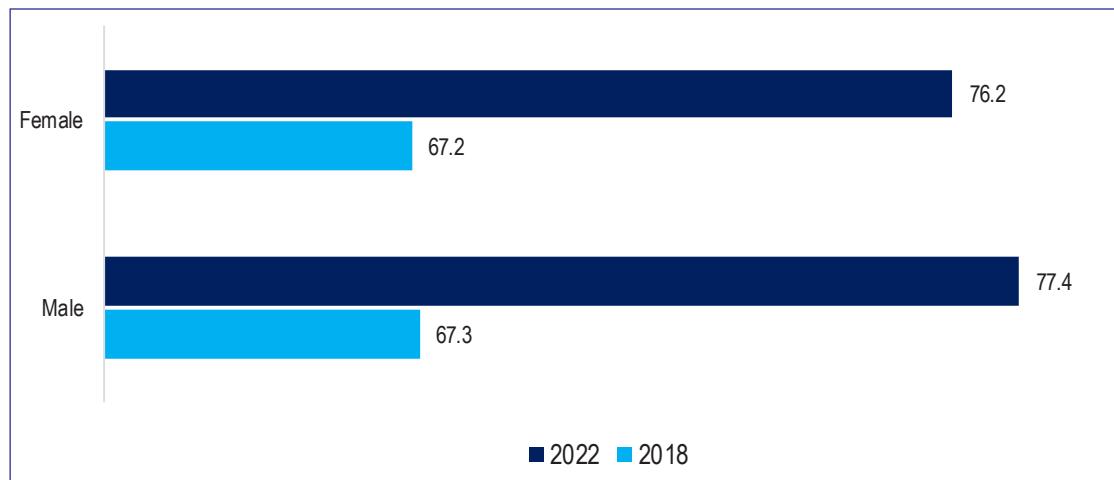
The level of awareness on the existence of DFS currently on offer in the country among all the individuals aged 10 years and older increased from 67.2 percent reported in 2018 to 76.7 percent in 2022. Lusaka, Southern and Eastern Provinces accounted for the largest proportion of the population aged 10 years and older that were aware of the existence of DFS at 22.0 percent, 13.1 percent and 12.2 percent respectively.

Figure 214: Awareness of Digital Financial Services by Province; 2022

Individuals in the age category of 25-29 years were observed to be most aware of DFS representing 86.3 percent of the individuals in the age category. The respondents in the age category of 10-14 were observed to have the lowest levels of awareness on DFS representing 51.7 percent of the population in the age category. These findings indicate that more awareness efforts could be placed on these younger age categories. Overall, there was an observed improvement in the awareness levels of DFS across all age categories between 2018 and 2022.

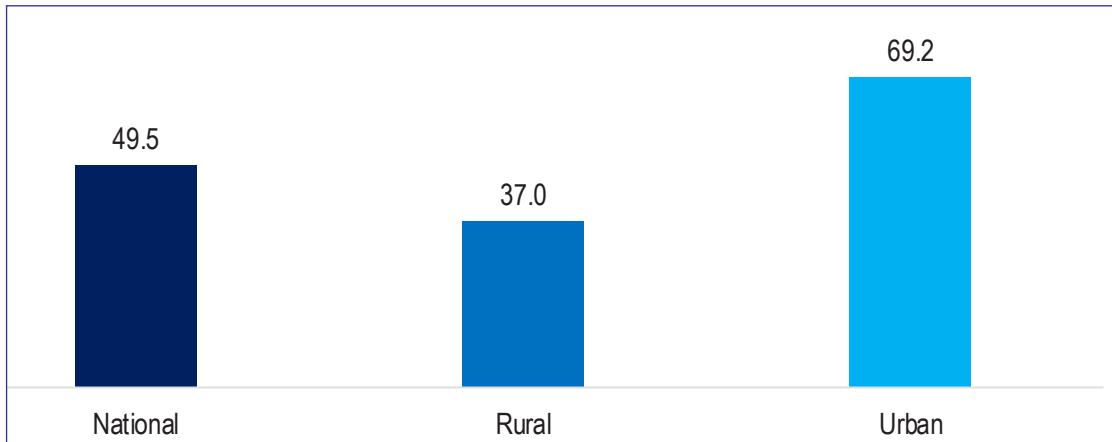
Figure 215: Awareness of the Existence of Digital Financial Services by Age; 2022

There was a noted improvement in the awareness of the existence of DFS by sex amongst individuals aged 10 years and older. Levels of awareness amongst males increased from 67.3 percent in 2018 amongst males to 77.4 percent in 2022. A similar trend was observed among females whose levels of awareness of the existence of DFS increased from 67.2 percent to 76.2 percent between 2018 and 2022. There were negligible differences observed among males and females that were aware of the existence of DFS in Zambia.

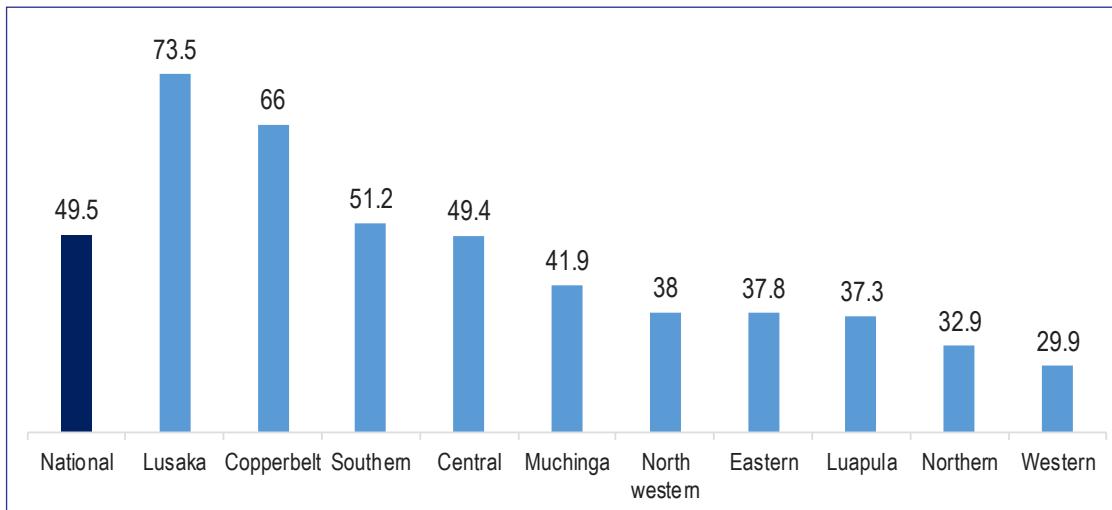
Figure 216: Awareness of Existence of Digital Financial Services within Sex Groups; 2022

7.2.6. Usage of Digital Financial Services

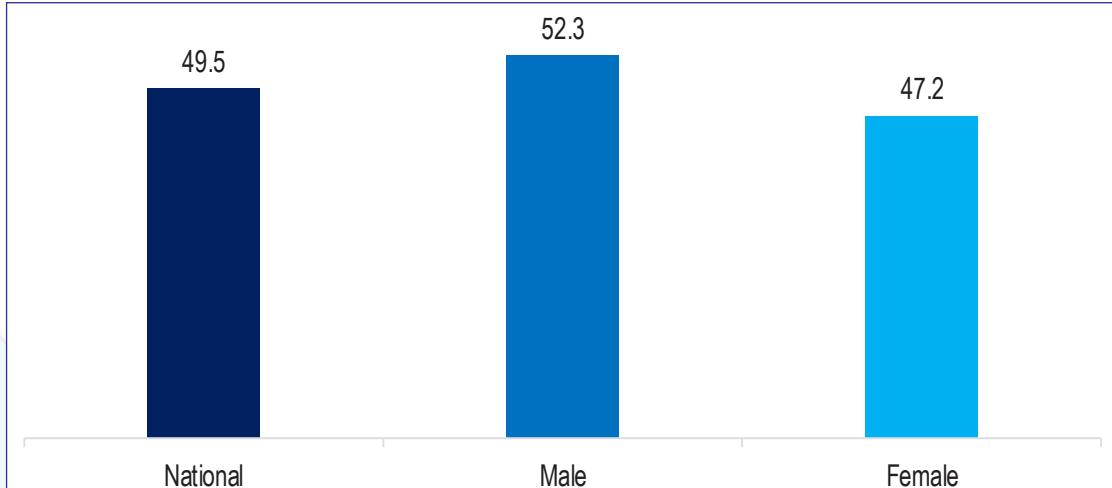
The survey established that 49.5 percent of individuals had transacted at least once using DFS platforms. Further, the usage of DFS platforms was quite high among urban users than rural users. Specifically, 69.2 percent of individuals in urban areas indicated using a DFS platform compared to 37.0 percent among rural users.

Figure 217: Usage of Digital Financial Services by Individuals within Regions; 2022

By province, Lusaka, Copperbelt, Southern and Central Provinces reported higher use of DFS while other provinces reported lower usage of DFS than the national level.

Figure 218: Usage of Digital Financial Services by Individuals across Provinces; 2022

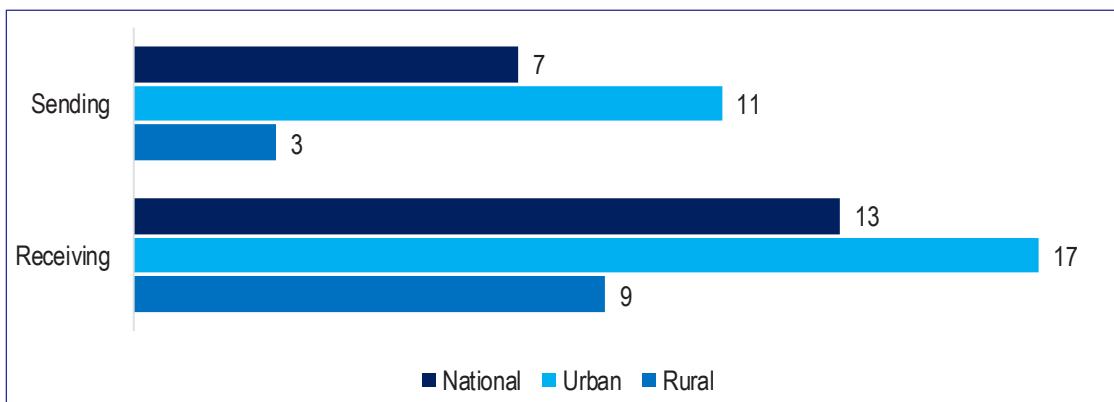
By sex, usage of DFS platforms was higher among males than females. Specifically, 52.3 percent of males used DFS platforms compared to 47.2 percent of females.

Figure 219: Usage of Digital Financial Services within Sex; 2022

7.2.7. Volume of Transactions per Month

The survey established user of DFS perform a total of 20 transactions (sending and receiving) on average per month through DFS platforms. Further, it was observed that on average the frequency of receiving transactions in a month were more than the frequency of sending transactions, with a ratio of 13 to 7 transactions respectively. The volume of transactions was higher in urban areas compared to rural areas, with urban DFS users performing a total of 28 transactions on average per month through DFS against a total of 12 transactions for rural areas. Notably, the frequency of receiving transactions was higher on average in both urban and rural areas compared to sending at 17 and 9 receiving transactions on average per month compared to 11 and 3 sending transaction on average per month.

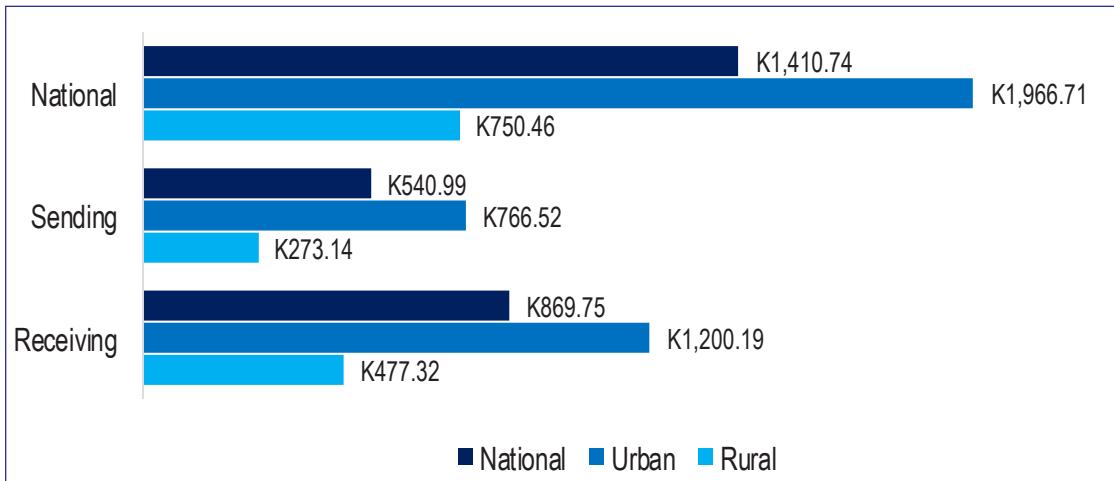
Figure 220: Volume of transactions per month by Individuals within Regions; 2022



7.2.8. Value of Transactions per Month

The survey established that on average users of DFS performed transactions (sending and receiving) valued at K 1,410.74 per month. It was further observed that on average receiving transactions value in a month were more than sending, with an average value of K 869.75 to K 540.99 respectively. The value of transactions was higher in urban areas compared to rural areas, with urban DFS users performing DFS transactions valued at K 1,966.71 a month on average against K 750.45 for rural areas. Notably, the values of receiving transactions were higher in both urban and rural areas compared to sending at K 1,200.19 and K 477.32 on average per month for receiving transactions compared to K 766.52 and K 273.14 on average per month for sending transaction.

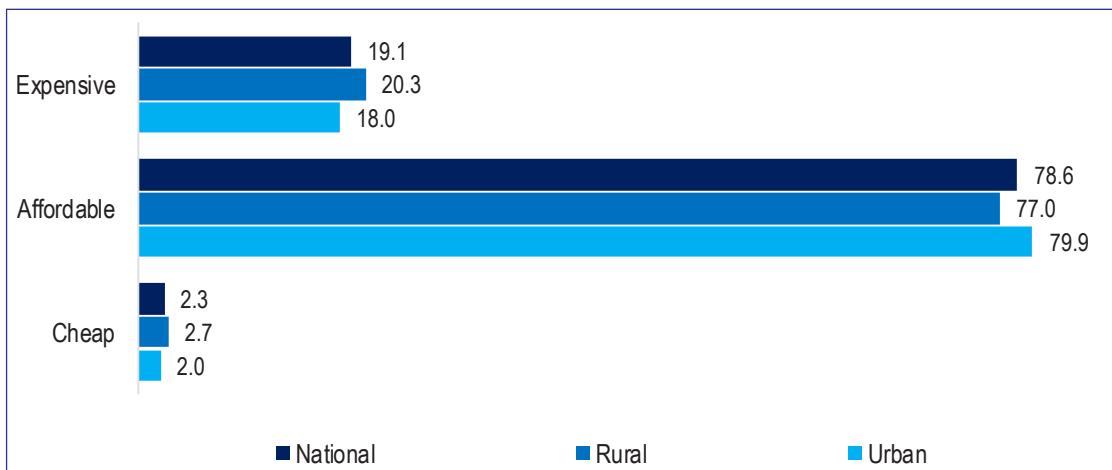
Figure 221: Value (ZMW) of transactions per month by Individuals within Regions; 2022



7.2.9. Perception of service charge of frequently used DFS

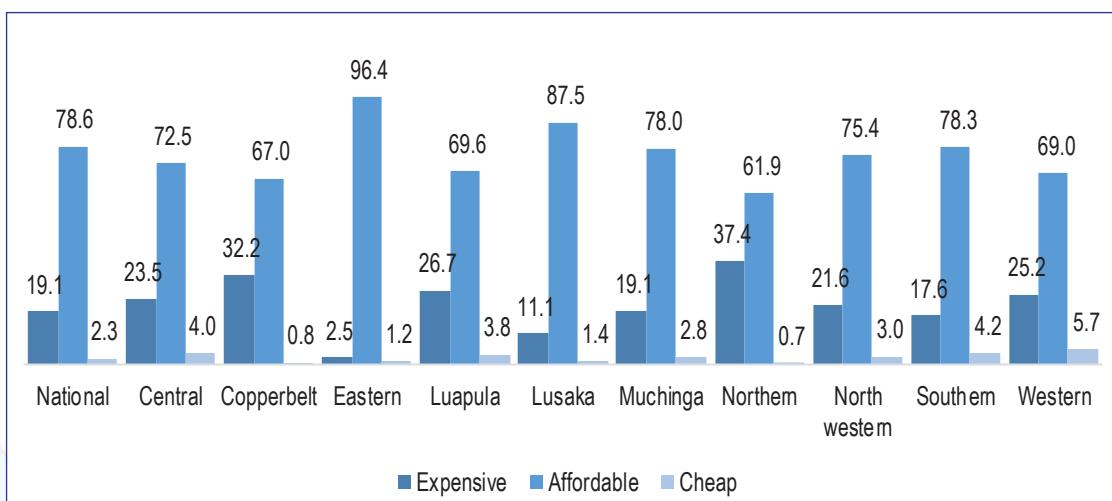
The survey established that the majority of users of DFS perceived the service charge to be affordable. Specifically, 78.6 percent of DFS users found service charges for the frequently used DFS affordable. However, 19.1 percent of users found them expensive while 2.3 percent found them cheap. By region, despite majority indicating that service charges of their frequently used DFS was affordable, more rural DFS users reportedly found service charges expensive compared to the users in urban areas. Notably, users of DFS that perceive the service charge of frequently used DFS to be expensive was 20.3 percent in the rural areas compared to 18.0 percent in the urban areas.

Figure 222: Perception of service charge of frequently used DFS by Individuals within Regions; 2022



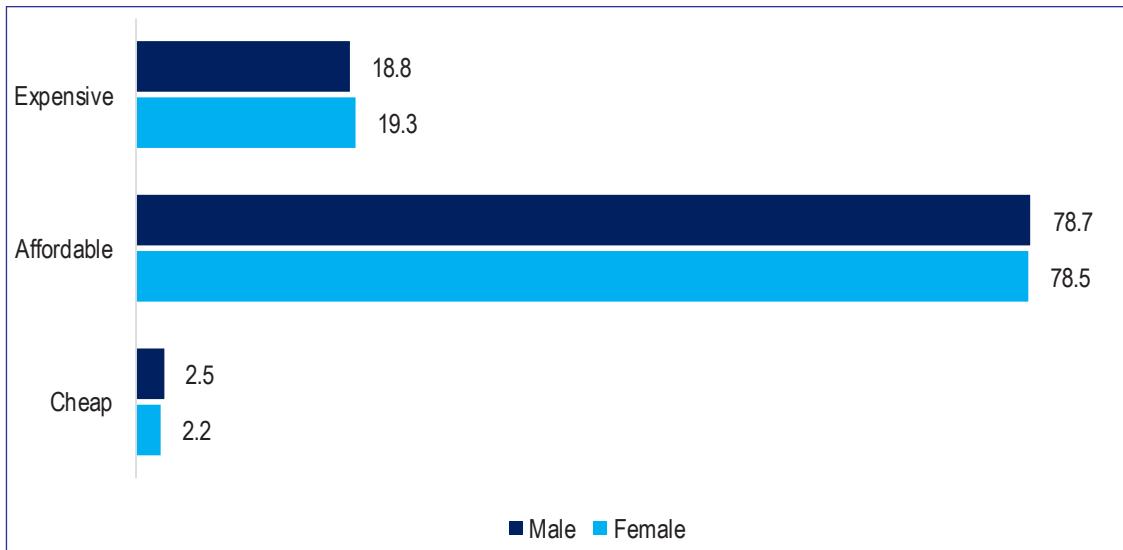
By province, the survey established that generally DFS users in all the provinces perceived the service charge of their preferred type of DFS to be affordable. Further, the percentage of users of DFS who reportedly perceived service charges to be affordable were particularly higher in Eastern and Lusaka Provinces compared to other provinces. However, Northern and Copperbelt Provinces reported quite higher percentages of users of DFS that perceive the service charge of frequently used DFS to be expensive.

Figure 223: Perception of service charge of frequently used DFS by individuals across provinces; 2022



By sex, the majority among of both males and females perceived the service charge of DFS they used frequently to be affordable, at 78.7 percent and 78.5 percent respectively.

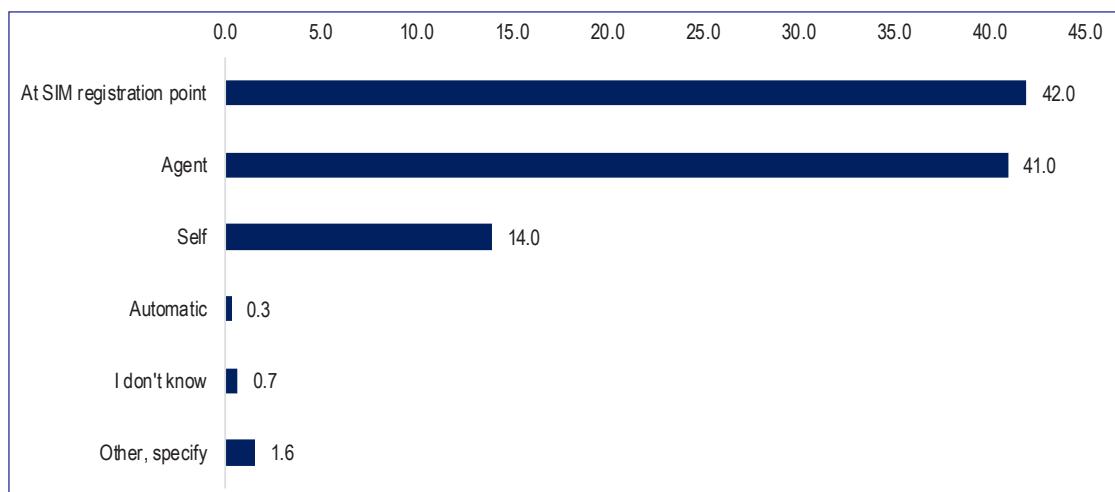
Figure 224: Perception of service charge of frequently used DFS within Sex Groups; 2022



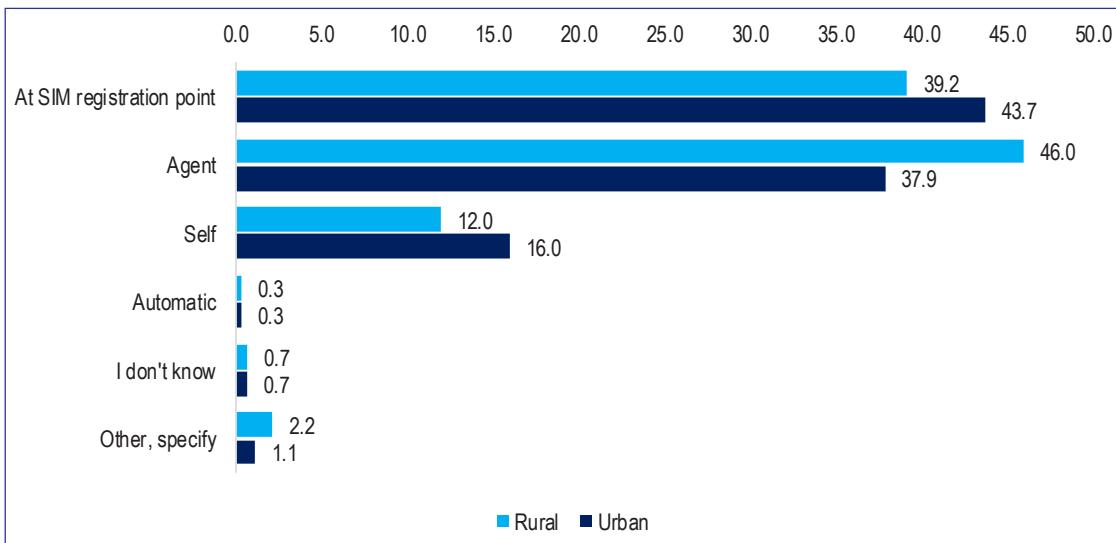
7.2.10. Mobile Money Account Activation

The survey results showed that most individuals aged 10 years and older that owned a mobile money account had activated their account either at the point of SIM card registration or through a mobile money agent. Precisely, 42.0 percent of mobile money account holders had it activated when their SIM card was registered while 41.0 percent had their account activated by a mobile money agent. A relatively smaller proportion of mobile money owners, estimated at 14.0 percent, activated their own accounts.

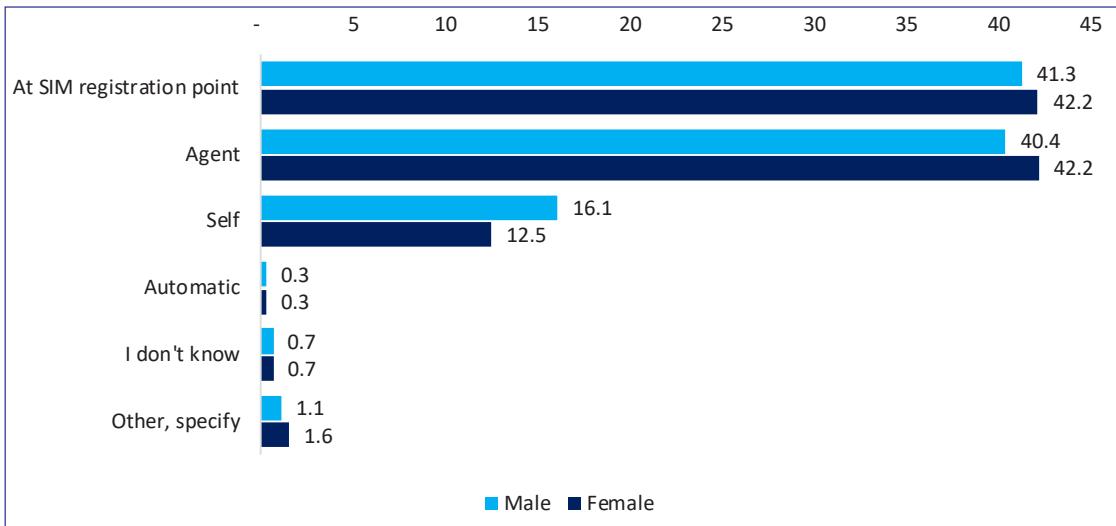
Figure 225: Mode of Mobile Money Account Activation; 2022



At regional level, it was also observed that most mobile money owners had their accounts activated at the point of SIM card registration or through a mobile money agent. Nonetheless, the results showed that the majority of mobile money account owners based in urban areas activated their accounts at the time of SIM card registration while most of mobile money owners in rural areas had their accounts activated by an agent.

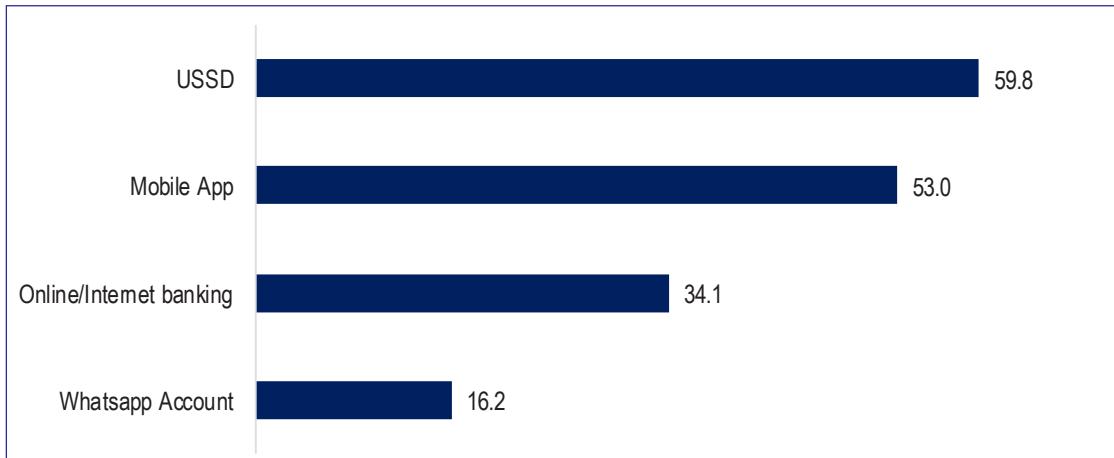
Figure 226: Mode of Mobile Money Account Activation by Region; 2022

The survey further showed marginal disparities between mobile money activation methods used by male and female mobile money account owners. However, the proportion of females that activated their mobile money accounts at the time of SIM card registration or through a mobile money agent was relatively higher than that of male mobile money account holders while self activation was observed to be more prevalent amongst male account holders.

Figure 227: Mode of Mobile Money Account Activation by Sex; 2022

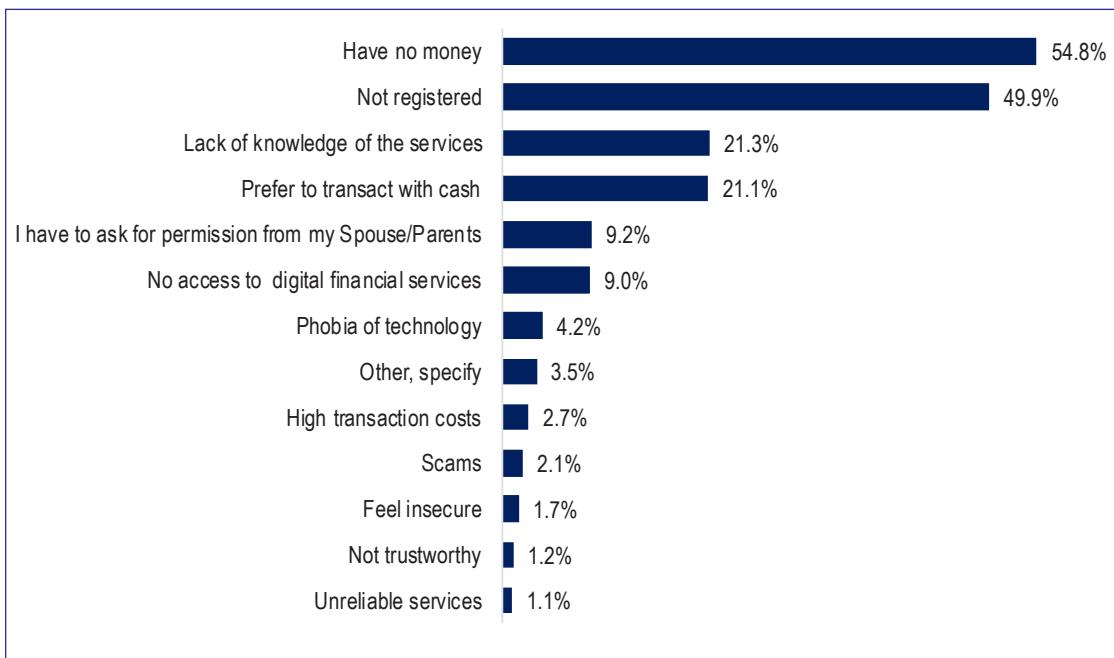
7.2.11. Types of Digital Financial Services linked to Financial Accounts

The survey revealed that 59.8 percent of individuals aged 10 years and older that owned financial accounts, regardless of the type of account, had enabled their accounts for USSD while 53.0 percent had mobile apps for their accounts. Only 34.1 percent had enabled their accounts for online/internet banking. It was further established that only 16.2 percent of individuals that owned financial accounts, regardless of the type of account, reported having enabled their accounts with a WhatsApp DFS account.

Figure 228: Proportion of Individuals with Accounts Enabled for DFS; 2022

7.2.12. Barriers to Adoption of Digital Financial Services

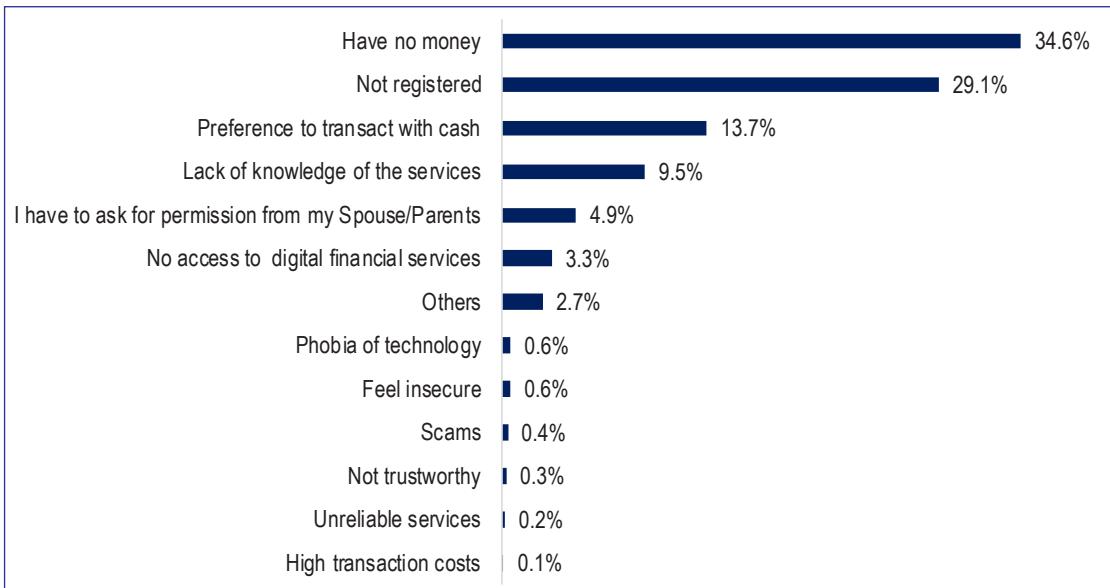
The survey results showed that most individuals aged 10 years and older that had not used DFS attributed this to the lack of resources and not having registered for any DFS. Specifically, 54.8 percent of these individuals attributed not having used DFS to having no money while 49.9 percent attributed this to not having registered for any DFS platform. This represents a slight increase in the proportion of individuals that attributed non-adoption of DFS to insufficient resources and not having registered which was estimated at 54.4 percent and 39.1 percent in 2018 respectively. Other significant hindrances to the adoption of DFS included the lack of knowledge on the services and preference to transact with cash which accounted for 21.3 percent and 21.1 percent respectively. Insecurity, unreliability of services and not being trustworthy were among the least challenges that were identified as barriers to the adoption of DFS by the individuals that had not used the services.

Figure 229: Barriers to Adoption of Digital Financial Services; 2022

The main barriers to the use of DFS were observed to be a lack of resources, not having registered for DFS and preference to transact with cash accounting for 34.6 percent, 29.1 percent and 13.7 percent of individuals that had not used DFS respectively. Less

than 1.0 percent of individuals that had not used DFS identified scams, lack of trust of DFS platforms, unreliable services and high transaction costs as the main barriers to adoption of DFS.

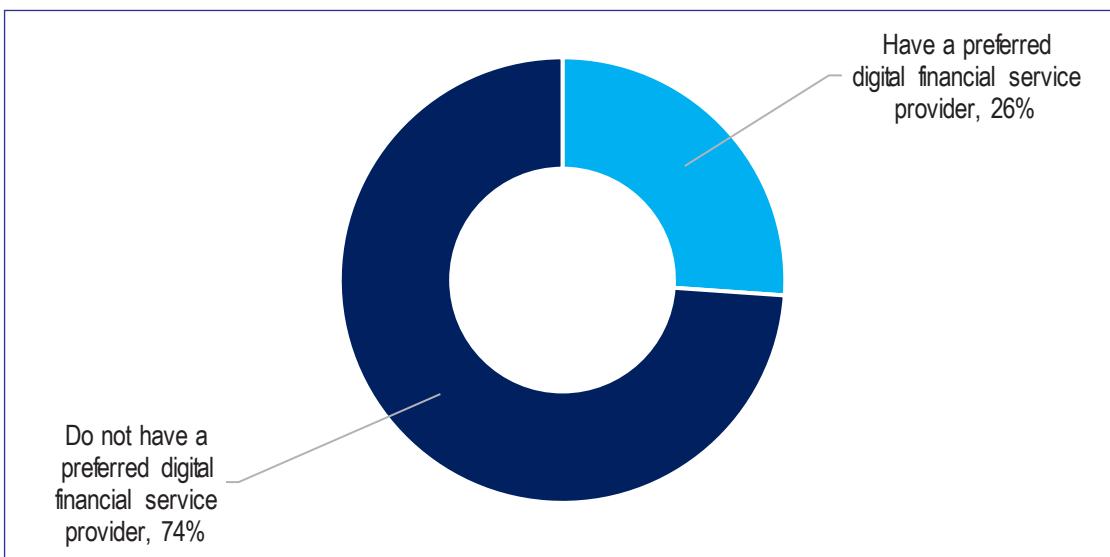
Figure 230: Main Barriers to Adoption of Digital Financial Services; 2022



7.2.13. Preference for Digital Financial Services Provider

The survey revealed that 26.1 percent of the individuals that had transacted using DFS had a preferred digital financial service provider. Further, results showed that majority of DFS users, at 98.7 percent, preferred mobile money services to other types of DFS.

Figure 231: Preference for a Digital Financial Service Provider; 2022

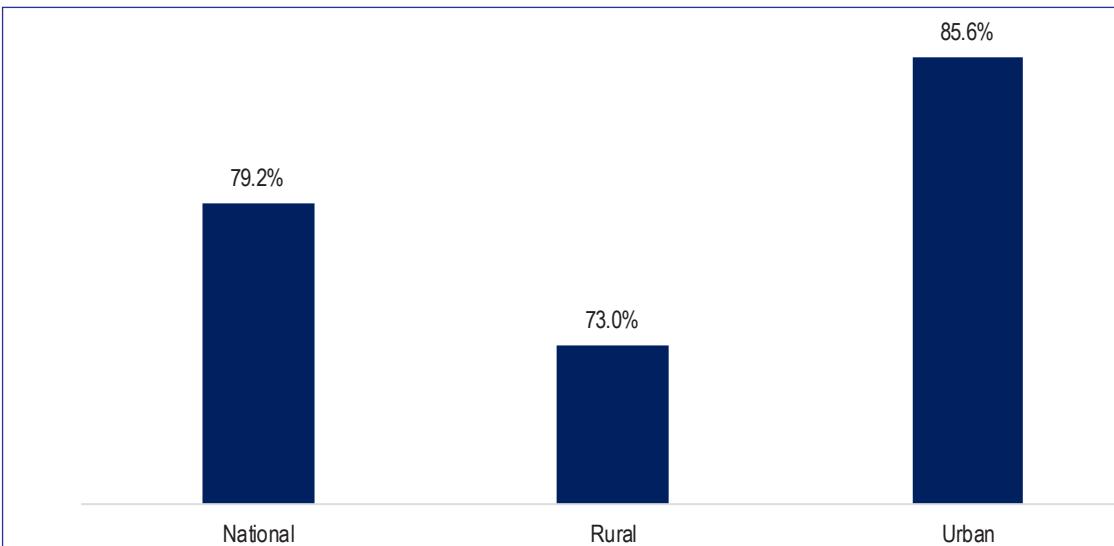


7.2.14. Willingness to Open a Bank Account by DFS Users

The majority of users of DFS that had no bank account were willing to open a bank account in the future. Specifically, 79.0 percent of individuals aged 10 years and older that had no bank account but had used digital financial services before were willing to open a bank account in the future based on their experience with DFS. This proportion was relatively higher in urban areas than in rural areas where it was estimated that

73.0 percent of users of DFS were willing to open bank accounts in the future whilst in urban areas, 86.0 percent were willing to open a bank account in the future.

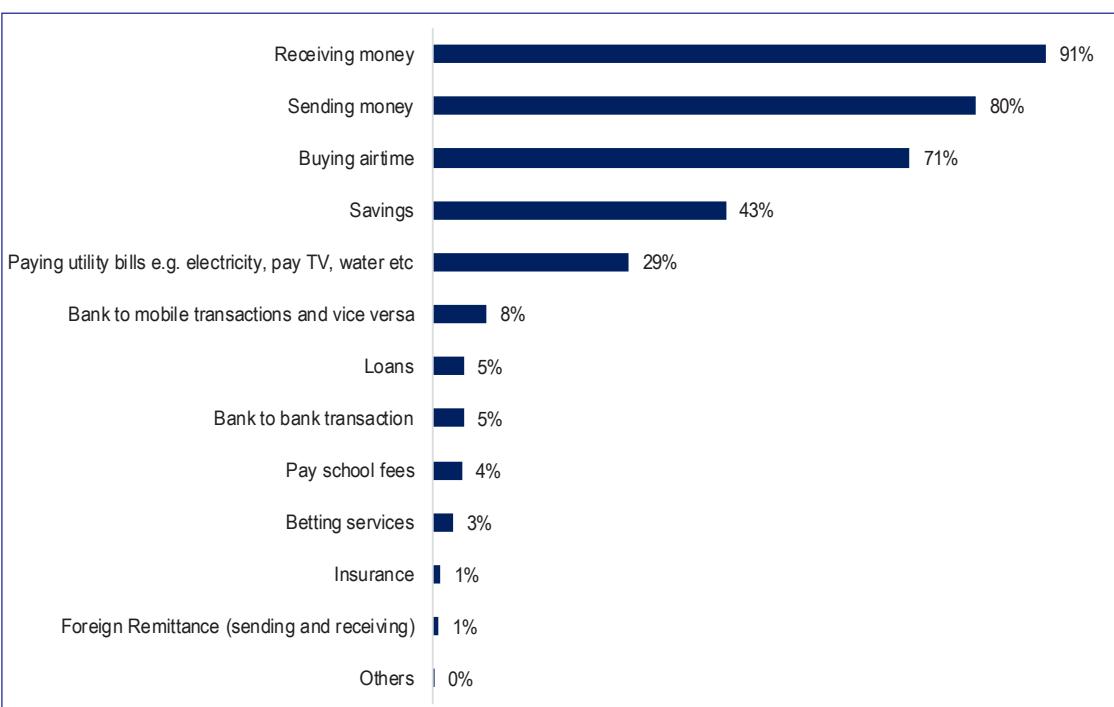
Figure 232 Willingness to Open a Bank Account; 2022



7.2.15. Activities Carried Out Using DFS Platforms

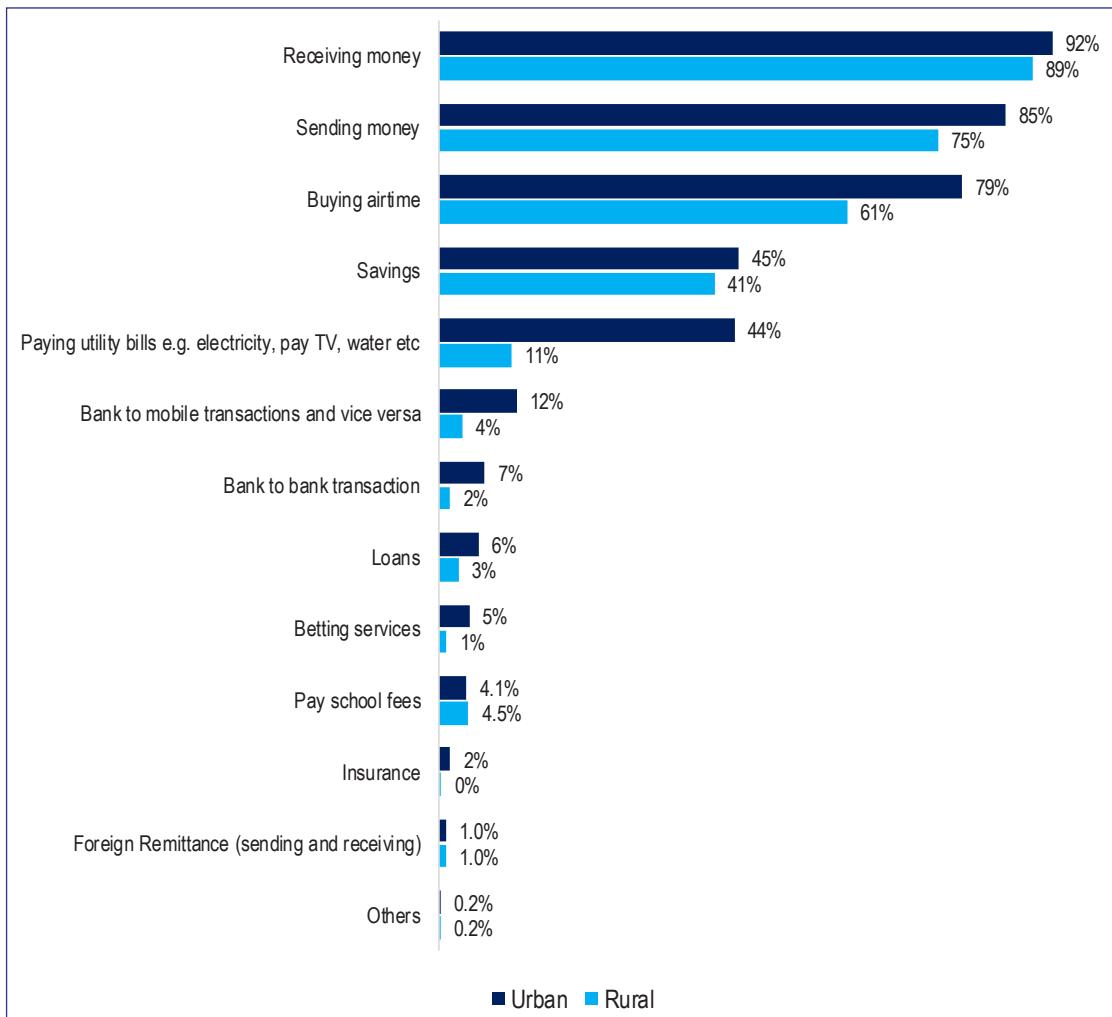
The most popular activities carried out on DFS platforms amongst individuals aged 10 years and older were noted to be receiving and sending money as well as purchase of airtime which were carried out by 91.0 percent, 80.0 percent and 71.0 percent of DFS users respectively. It was also noted that the proportion of individuals that used DFS for savings and paying utility bills such as electricity increased between 2018 and 2022 from a proportion of 37.8 percent to 43.0 percent and 18.2 percent to 29.0 percent respectively. Further, the survey showed that the proportion of individuals that used DFS for activities such as paying school fees, betting services, insurance and foreign remittances was below 10.0 percent.

Figure 233: Activities Conducted on Digital Financial Service Platforms; 2022



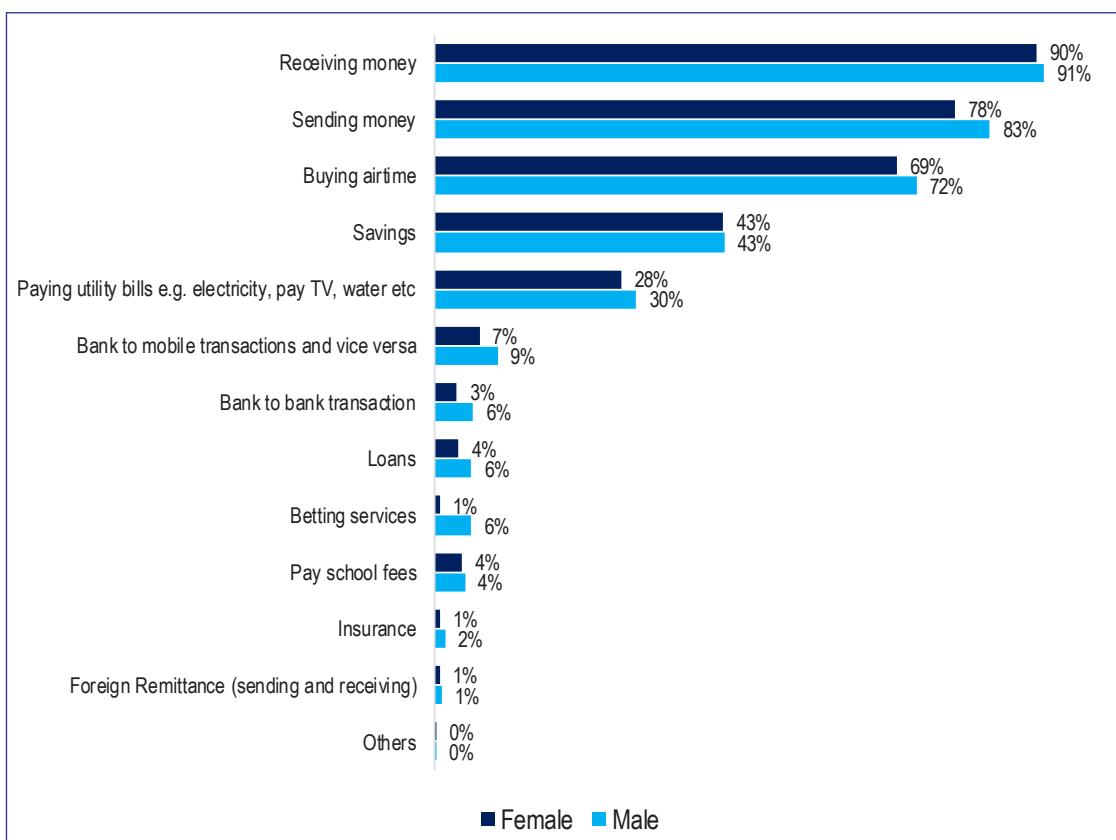
A regional analysis of the activities undertaken on DFS platforms showed marginal disparities between activities undertaken by users in rural areas and those in urban areas. However, it was observed that a relatively higher proportion of DFS users in urban areas carried out the highlighted activities on DFS platforms except for paying school fees.

Figure 234: Activities Conducted on Digital Financial Service Platforms by Region; 2022



Further, it was established that the proportion of males that carried out the highlighted activities on DFS platforms was relatively higher than the proportion of females that carried out similar activities. However, the difference in these proportions was noted to be minimal.

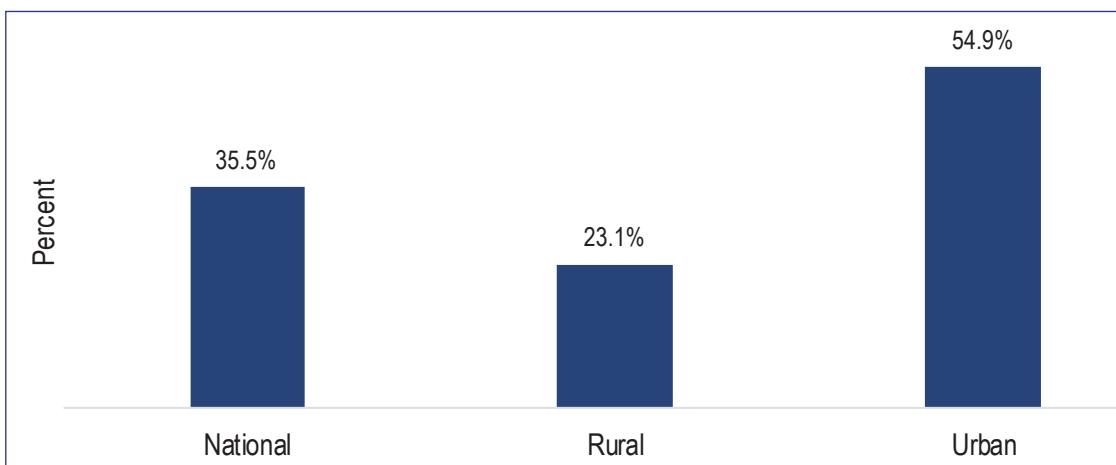
Figure 235: Activities Conducted on Digital Financial Service Platforms by Sex; 2022



7.2.16. Active Receipt of Money via Digital Financial Services

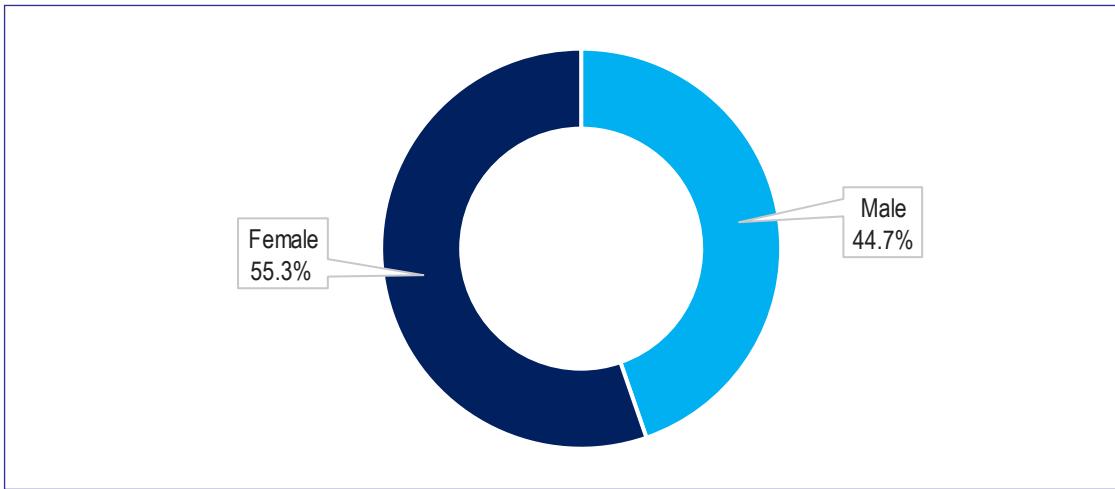
The survey results showed that 35.5 percent of individuals aged 10 years and above in the country reported that they had received money via DFS within three (3) months prior to the ICT survey. The survey further estimated that 23.1 percent of individuals aged 10 years and above based in rural areas received money via DFS within three (3) months prior to the ICT survey while 54.9 percent of individuals was reported among the urban population.

Figure 236: Individuals that Received Money via Digital Financial Services within 3 months prior to the Survey



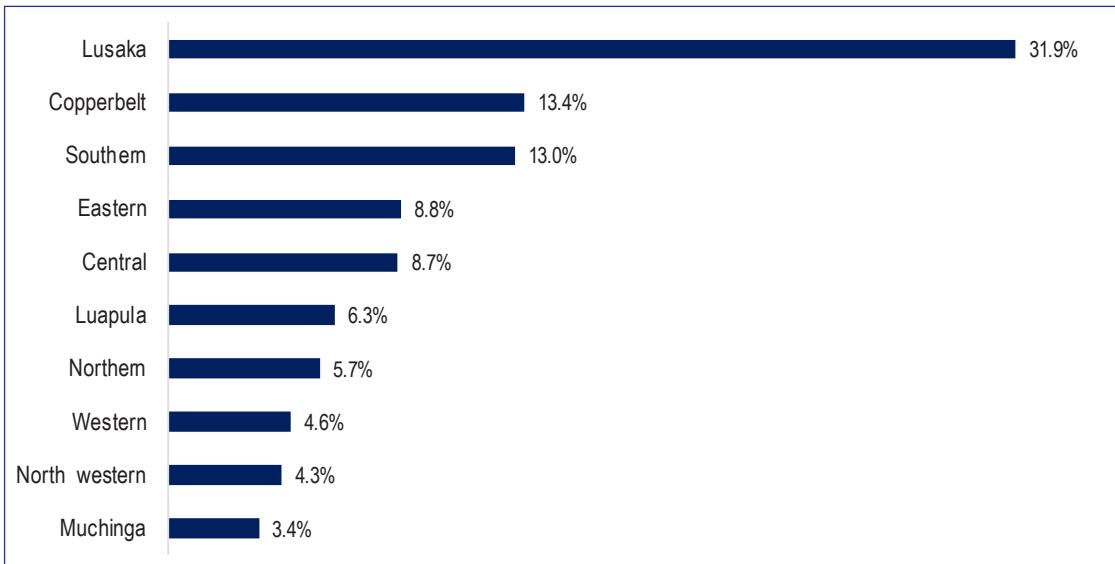
The survey established that the majority of individuals aged 10 years and older that reported that they had received money via digital financial services within three (3) months prior to the ICT survey were females accounting for 55.3 percent while males accounted for 44.7 percent.

Figure 237: Individuals that Received Money via Digital Financial Services across Sex: 2022



The survey estimated that Lusaka and Copperbelt Provinces accounted for the largest proportion of individuals aged 10 years and older who indicated that they received money via DFS within three (3) months prior to the ICT survey, accounting for 31.9 percent and 13.4 percent, respectively. Muchinga and North Western Provinces accounted for the lowest proportion of individuals at 3.4 percent and 4.3 percent respectively.

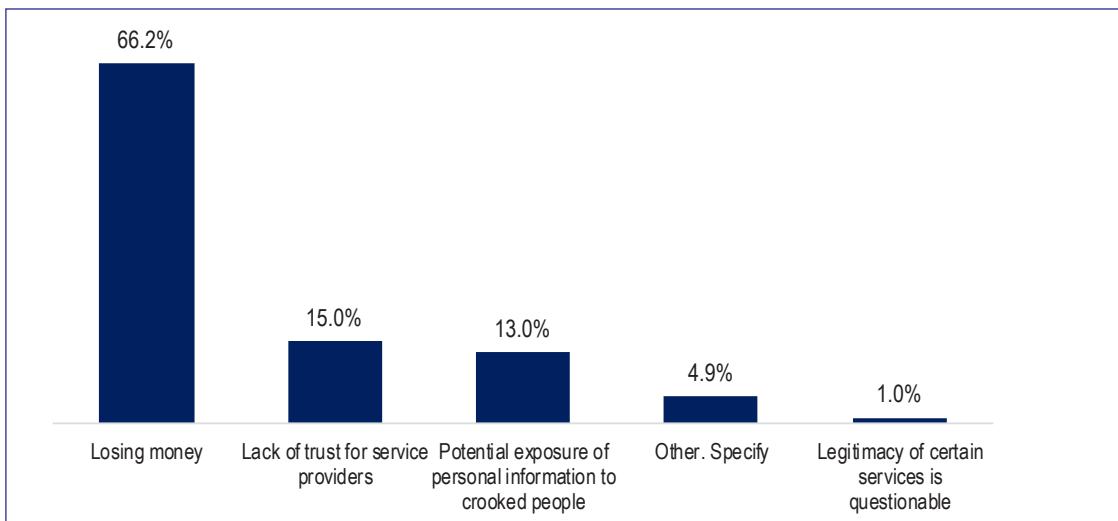
Figure 238: Individuals that Received Money via Digital Financial Services within three months prior to the Survey across Provinces: 2022



7.2.17. Main Security Concern when transacting using Digital Financial Services

The survey results indicated that the highest proportion of users of DFS that were insecure with DFS platforms were mostly concerned about the loss of money and accounted for 66.2 percent of the users. On the other hand, the least proportion of DFS users that did not feel secure with DFS platforms were mostly concerned with the legitimacy of certain services (see Figure 227).

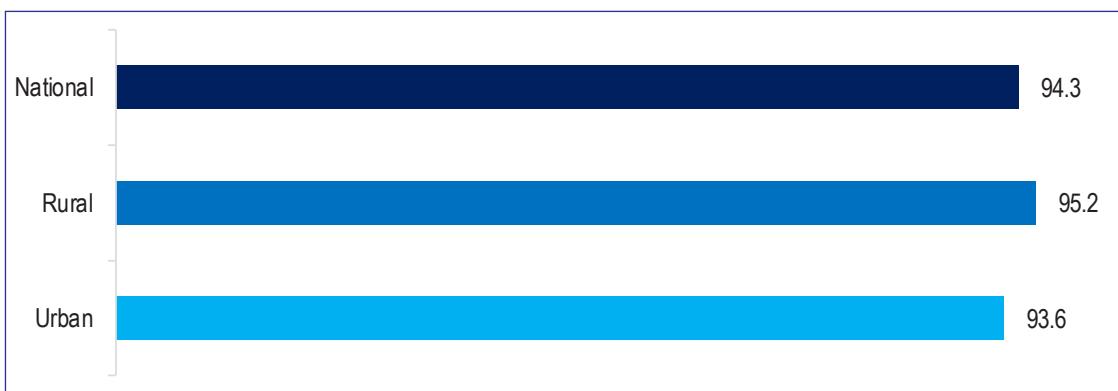
Figure 239: Distribution of Individuals' Main Security Concern when transacting using Digital Financial Services



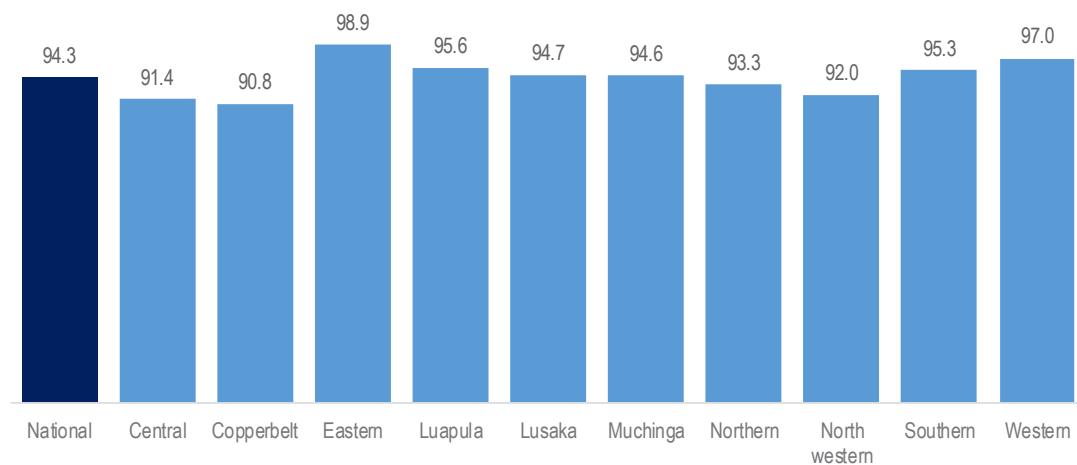
7.2.18. Security of Transaction using DFS

The survey established that about 94.3 percent of individuals felt transaction using DFS were secure. By region, among DFS users in rural areas 95.2 percent of felt DFS were secure compared to 93.6 percent of users in urban areas.

Figure 240: Security of transacting using DFS by Individuals within Regions; 2022

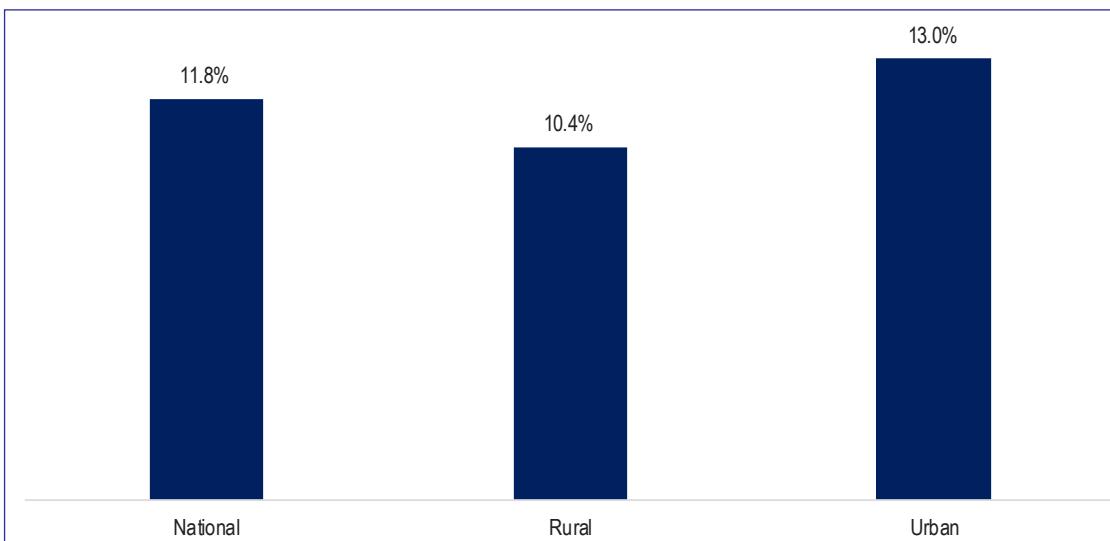


By sex, 94.8 percent of DFS users among males reported felt DFS transactions were secure compared to 93.9 percent of users among females. By province, survey results showed in all the provinces DFS users who were secure transacting with DFS were in majority. Eastern, Western, Luapula, Southern, Lusaka and Muchinga Provinces reported slightly individuals above the national level who felt DFS transactions were secure.

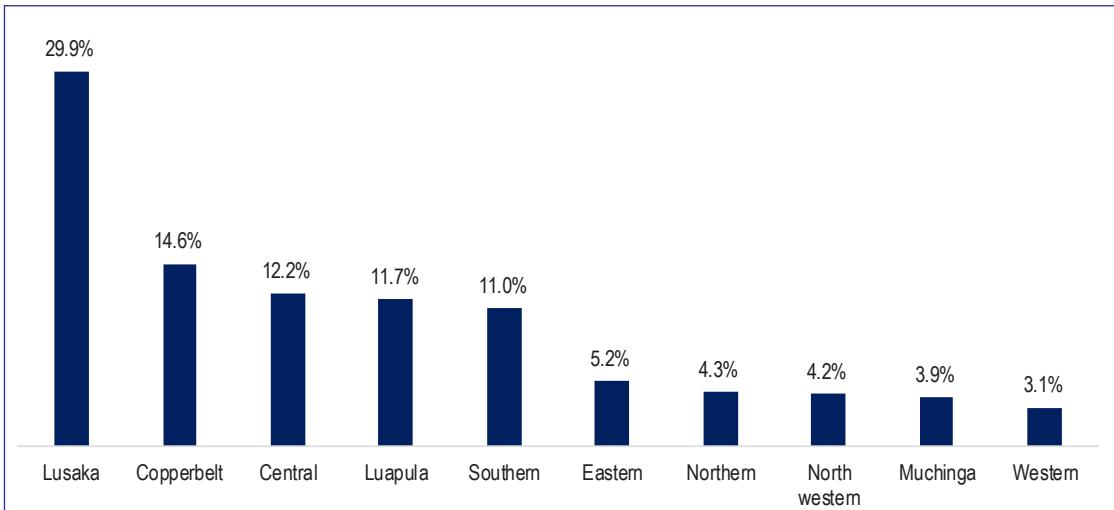
Figure 241: Security of transacting using DFS by individuals across provinces; 2022

7.2.19. Challenges Associated with the Use of Digital Financial Services

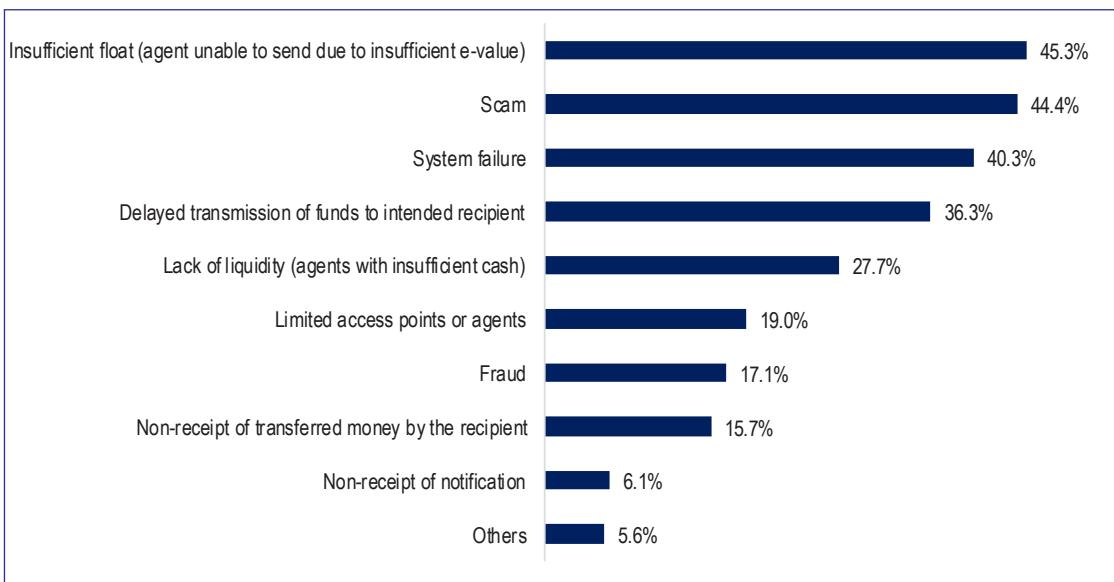
Amongst individuals aged 10 years and older that had transacted with used DFS, it was reported that 11.8 percent had experienced some challenges while using the platforms. The 2022 proportion of DFS users represents a slight decline from the proportion of 12.2 percent reported in 2018. By region, challenges encountered in the usage of DFS platforms were higher among urban individuals than rural individuals. It was reported that 13.0 percent of DFS users in urban areas encountered some challenges with DFS platforms while among the rural individuals the proportion was 10.4 percent.

Figure 242: Prevalence of Challenges When Using DFS by Region; 2022

The majority of individuals aged 10 years and older that encountered challenges in the usage of DFS where based in Lusaka, Copperbelt and Central Provinces and they accounted for 29.9 percent, 14.6 percent and 12.2 percent of DFS users respectively. North-western, Muchinga and Western Provinces reported the least proportions of DFS users that encountered challenges with DFS platform. These challenges were closely related to the regional concentration of DFS activities.

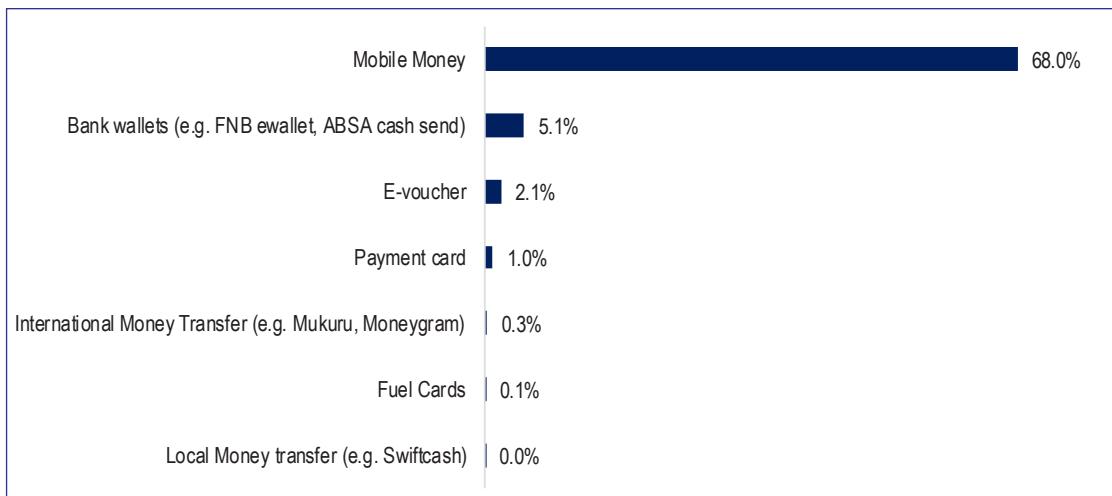
Figure 243: Prevalence of Challenges When Using DFS by Province; 2022

The most common challenges experienced by those that had encountered challenges on DFS platforms were noted to be insufficient float, scams and system failures which were reported by 45.3 percent, 44.4 percent and 40.3 percent of individuals that encountered challenges respectively. Other challenges such as delayed transmission of funds, lack of liquidity and limited access points were also encountered by a large proportion of individuals representing 36.3 percent, 27.7 percent and 19.0 percent of individuals that encountered challenges while using DFS respectively. The least encountered challenge noted by DFS users was the non-receipt of notifications and was reported by 6.1 percent of individuals.

Figure 244: Challenges Encountered During the Use of Digital Financial Services; 2022

The survey revealed that 68.0 percent of DFS users that had encountered challenges while using the services, experienced these challenges on mobile money platforms. Aside from mobile money platforms, it was also observed that about 5.1 percent of the users of DFS encountered challenges when using bank wallets.

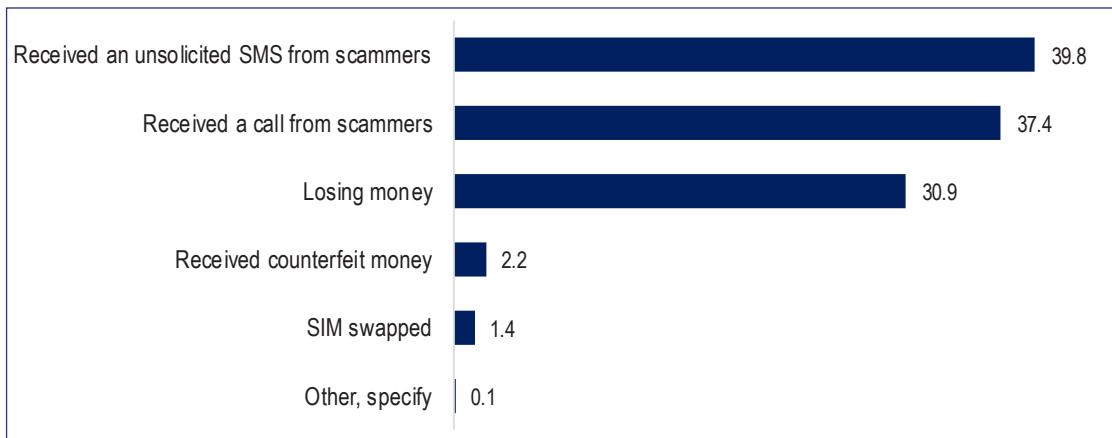
Figure 245: Challenges Associated with the Use of Digital Financial Services by Type of Service: 2022



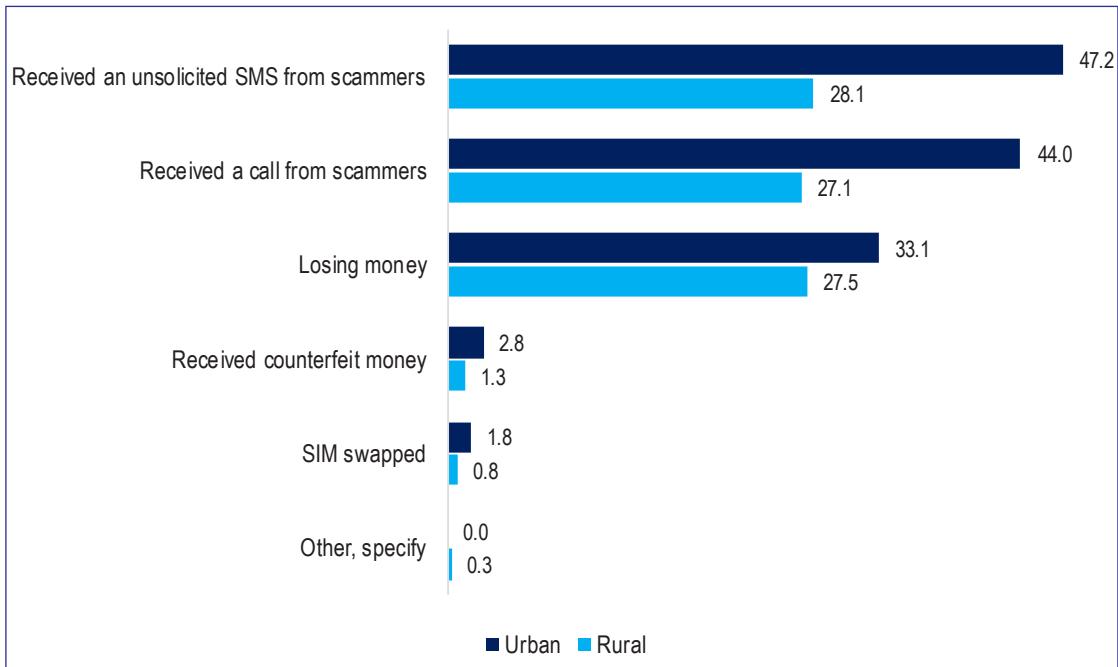
7.2.20. Victims of DFS-based Fraud among DFS Users

The survey established that the majority of the users of DFS that were victims of DFS related frauds had received unsolicited SMSs from scammers as well as calls from scammers and accounted for 39.8 percent and 37.4 percent of DFS users respectively. The survey showed that at least 30.9 percent of DFS users that were victims of DFS fraud had lost money at least once while using DFS. Less than 2.0 percent of the victims of DFS related frauds had their SIM card swapped.

Figure 246: Victims of DFS based Frauds among DFS Users

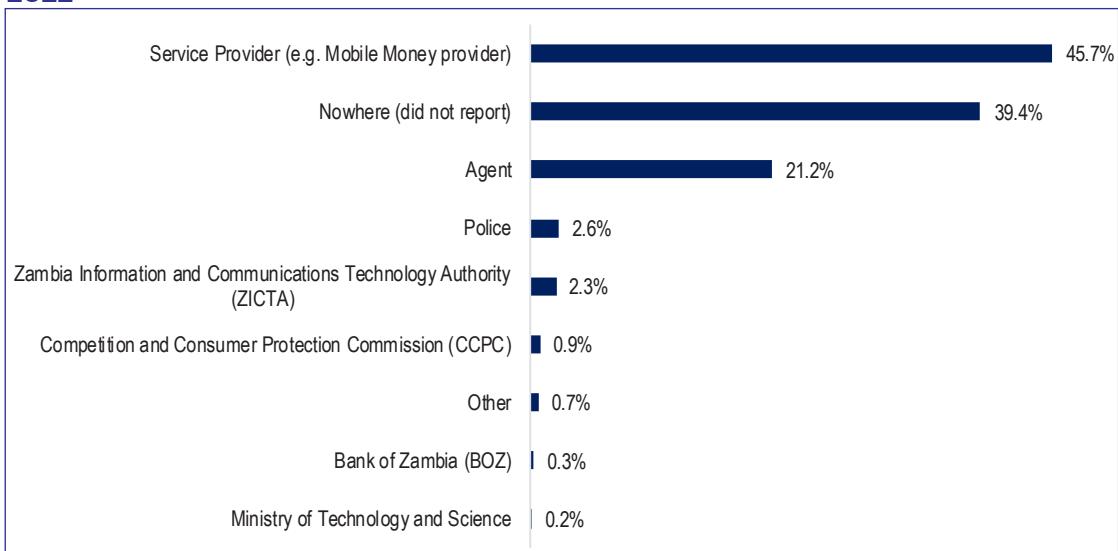


There were notable differences in the experiences of DFS frauds amongst users based in rural and urban areas. Notably, the prevalence of the different forms of DFS related frauds was relatively higher in the urban areas than in the rural areas. However, the general pattern in the incidence of the different forms of the DFS related frauds was consistent among rural and urban areas.

Figure 247: Victims of DFS based Fraud among DFS Users

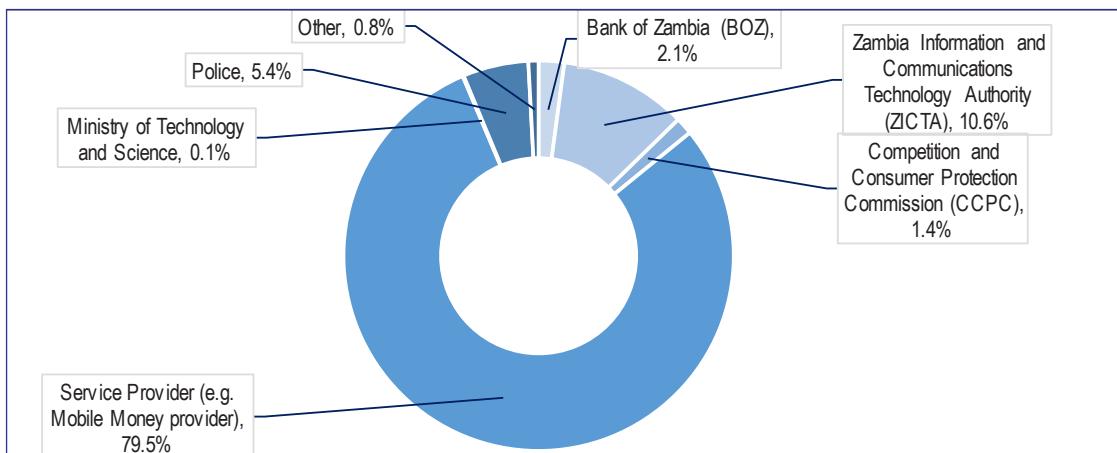
7.2.21. Redress Mechanisms for Challenges Related to Digital Financial Services

The survey results indicated that most of the individuals that encountered challenges when using DFS reported their encounters to their respective service providers. Specifically, 45.7 percent of individuals that encountered challenges in the course of using DFS reported to the service provider while 39.4 percent did not report the issue. This observed trend represented a slight shift from the reporting mechanisms observed in 2018 where most individuals did not report DFS related challenges. A much smaller proportion of individuals that encountered challenges when using DFS, about 0.3 percent, reported their challenges to the Bank of Zambia while 2.3 percent indicated reporting their encounter to the Zambia Information and Communications Technology Authority.

Figure 248: Institution to which Challenges Associated with DFS were Reported; 2022

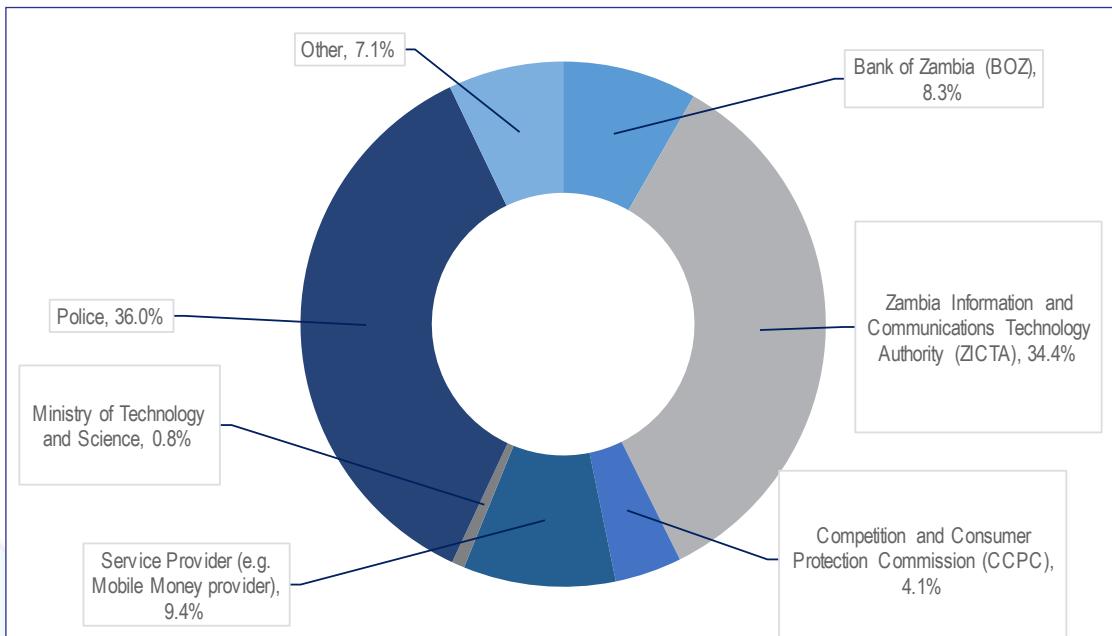
The majority of DFS users that were aware of redress mechanisms available to them if they encountered challenges when using DFS indicated that their first point of contact for any DFS complaint was the service provider. Specifically, 79.5 percent of DFS users aware of the complaint redress mechanisms reported that the service provider would be their first point of contact while 10.6 percent indicated Zambia Information and Communications Technology Authority would be their first point of contact. A much smaller proportion of DFS users with full awareness of complaint resolution mechanisms identified the police and the Bank of Zambia (BOZ) as their first point of contact and accounted for 5.4 percent and 2.1 percent respectively.

Figure 249: First Point of Contact for DFS Related Complaints; 2022



In the event that a DFS related complaint was not adequately addressed by the first point of contact, it was established that most DFS users aware of the available redress mechanisms would escalate their complaint to the police or to ZICTA. Notably, 36.0 percent of DFS users indicated they would escalate their complaints to the police while 34.4 opted ZICTA for escalation of DFS complaints.

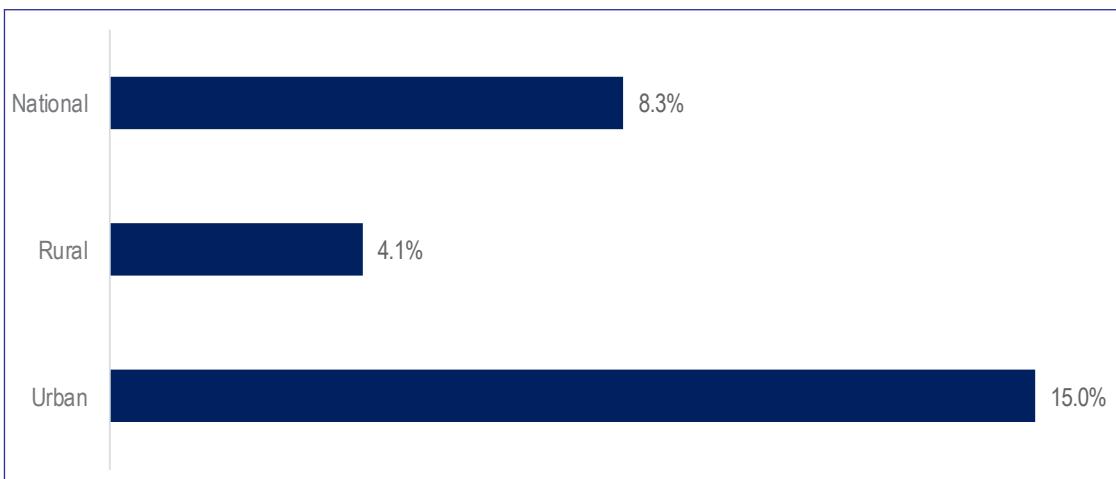
Figure 250: Escalation of Complaints Related to DFS; 2022



7.2.22. Awareness on the Regulator for Digital Financial Services

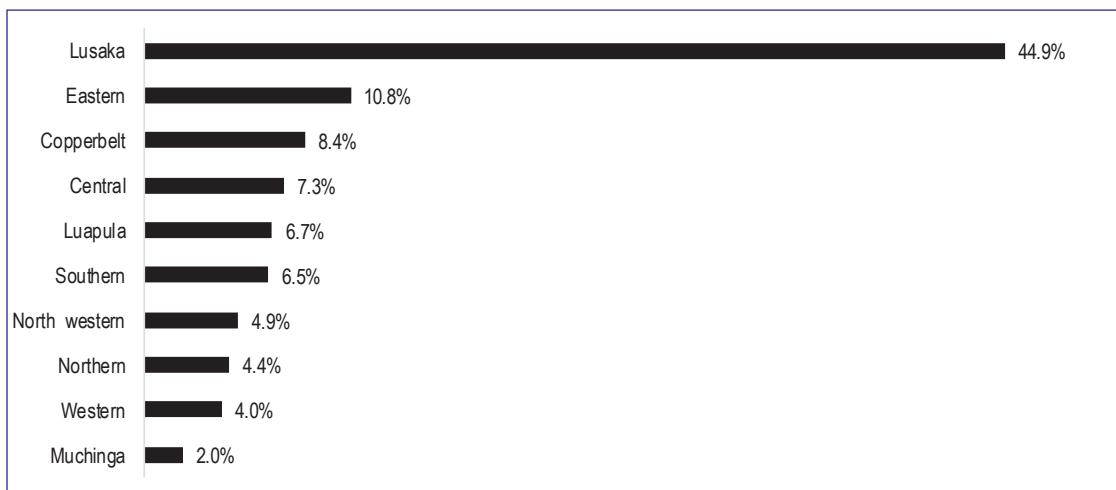
The survey estimated that only 8.3 percent of DFS users across the country were aware of an institution that is responsible for regulation of DFS in Zambia. The level of awareness of the regulator of DFS was relatively higher among urban DFS users than among rural DFS users.

Figure 251: Awareness on the Regulator for Digital Financial Services; 2022

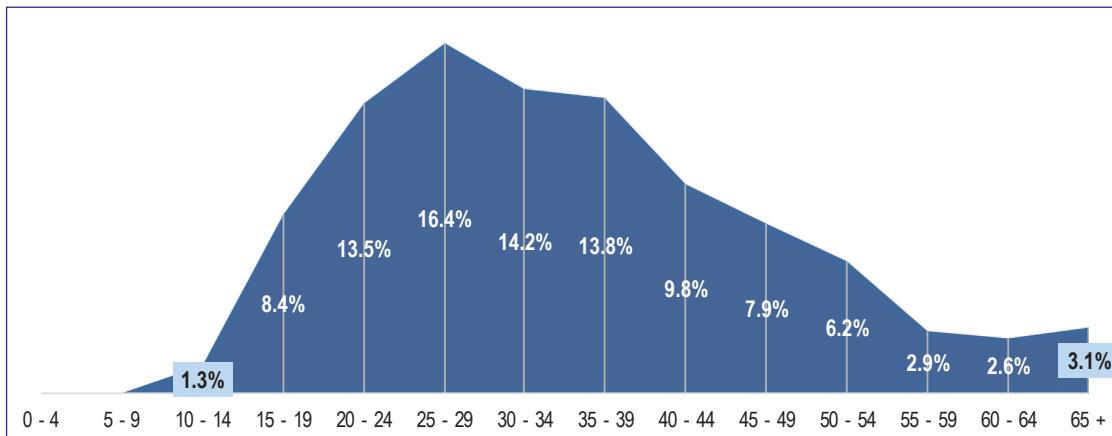


By province, the survey revealed that Lusaka Province at 44.9 percent constituted the largest proportion of DFS users that were aware of the institution responsible for regulation of DFS in Zambia. However, Western and Muchinga Provinces accounted for the lowest proportion of DFS users that were aware of the institution which regulates digital financial services.

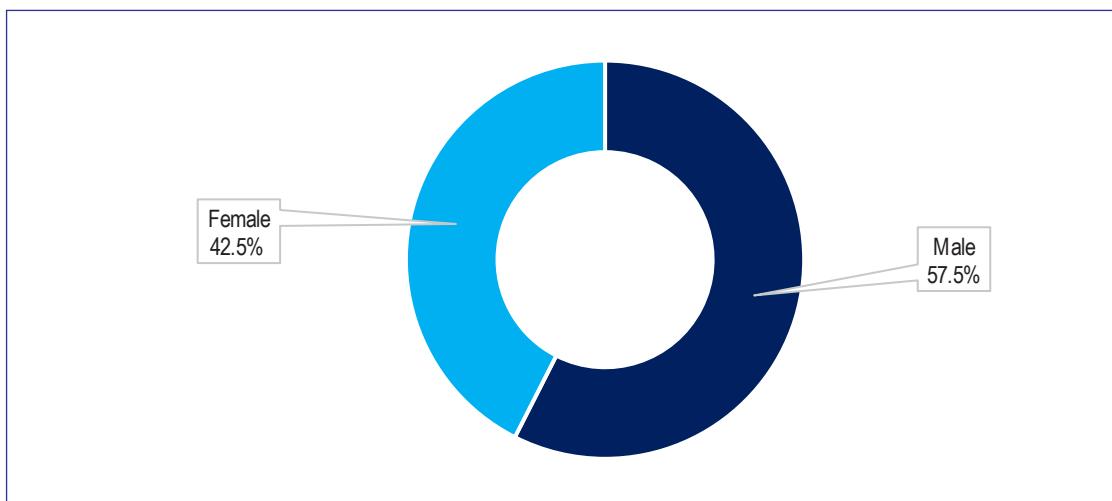
Figure 252: Awareness on Existence of the Regulator for Digital Financial Services by Province; 2022



The survey further revealed that awareness of the existence of a DFS regulator was high among DFS users in the age category 10 to 35 years. Specifically, 53.8 percent of the individuals were aware of the existence of a DFS regulator in Zambia.

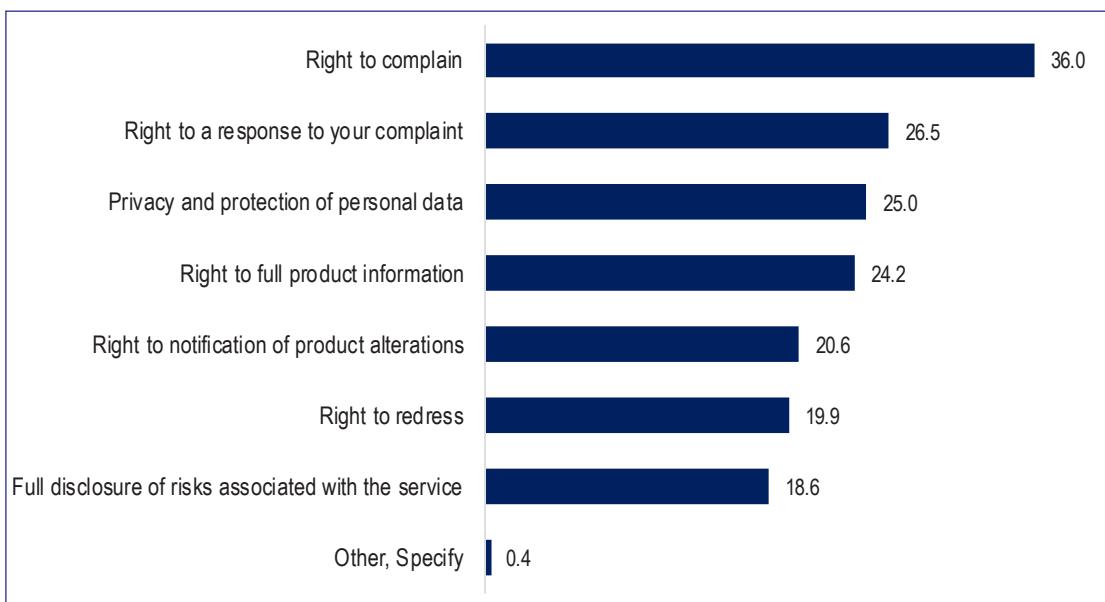
Figure 253: Awareness on Existence of the Regulator for DFS by Age-group; 2022

By sex, the survey estimated that the majority of DFS users that were aware of the institution that regulates DFS were males and accounted for 57.5 percent compared to 42.5 percent of females.

Figure 254: Awareness on the Institution that Regulates Digital Financial Services across Sex; 2022

7.2.23. Knowledge of Rights with the Use of Digital Financial Services

The survey established that the majority of DFS users were aware of their rights on DFS platforms related to complaint, receipt of a response to their complaints and privacy or protection of personal data and accounted for 36.0 percent, 26.5 percent and 25.0 percent respectively. Awareness of right to redress and full disclosure of risks associated with the DFS among DFS users was least and accounted for 19.9 percent and 18.6 percent of the users of DFS respectively.

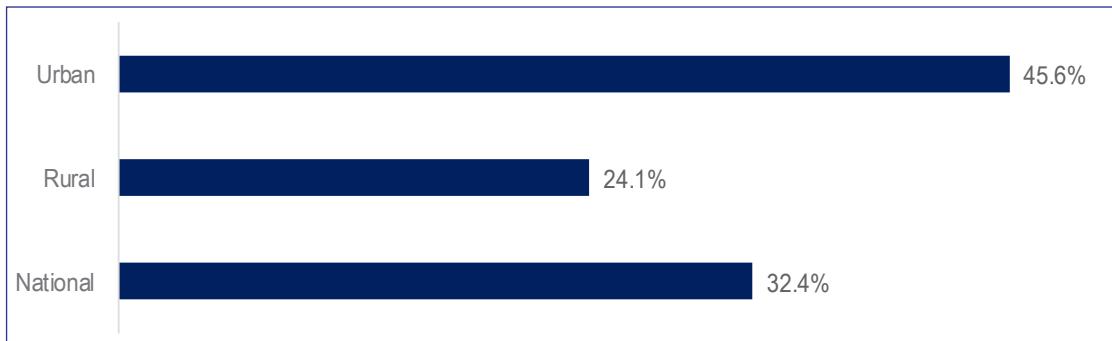
Figure 255: Awareness of Rights Associated with the Use of DFS: 2022

There were notable disparities in the levels of awareness on the rights associated with the use of DFS amongst DFS users in rural areas and those in urban areas. Awareness was higher among users of DFS in urban areas than among users of DFS in rural areas across the all rights evaluated in the survey.

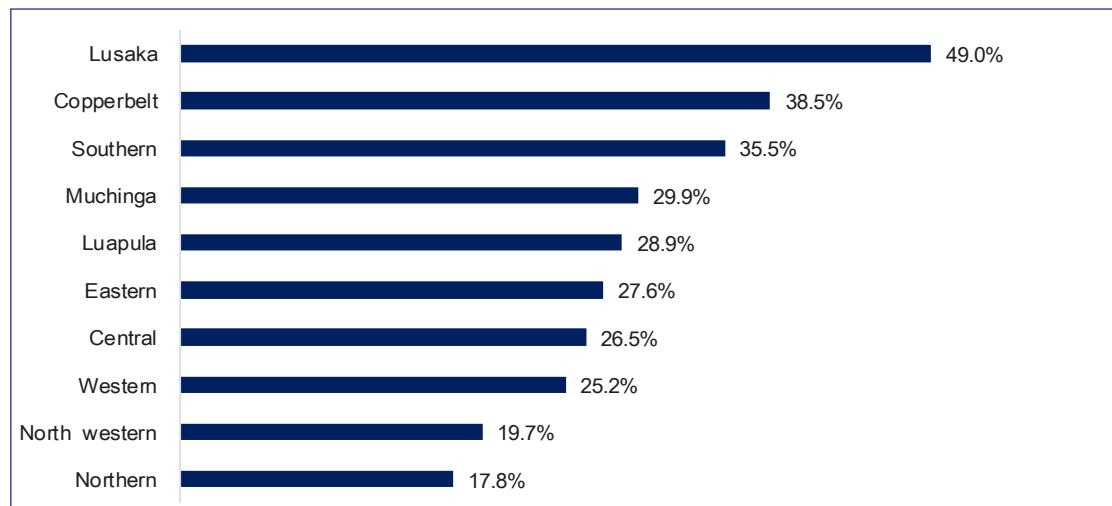
Figure 256: Awareness of Rights Associated with the Use of DFS across Regions: 2022

7.2.24. Digital Financial Services Sensitization Efforts

The survey results showed that 32.4 percent of individuals aged 10 years and older had received sensitisation on DFS nationally. By region, sensitisation on DFS was higher among the urban population at 45.6 percent than among the rural population

Figure 257: Sensitization on Digital Financial Services across Regions; 2022

By province, the survey revealed that at 49.0 percent Lusaka Province had the largest proportion of individuals aged 10 years and older that indicated they had received sensitization on DFS followed by the Copperbelt at 38.5 percent. North-Western and Northern Provinces accounted for the lowest proportion of individuals sensitised on DFS at 19.7 percent and 17.8 percent respectively.

Figure 258: Sensitisation on Digital Financial Services across Provinces; 2022

By age, the majority of individuals aged 10 years and older that were sensitised on DFS were below 35 years accounting for 57.5 percent.

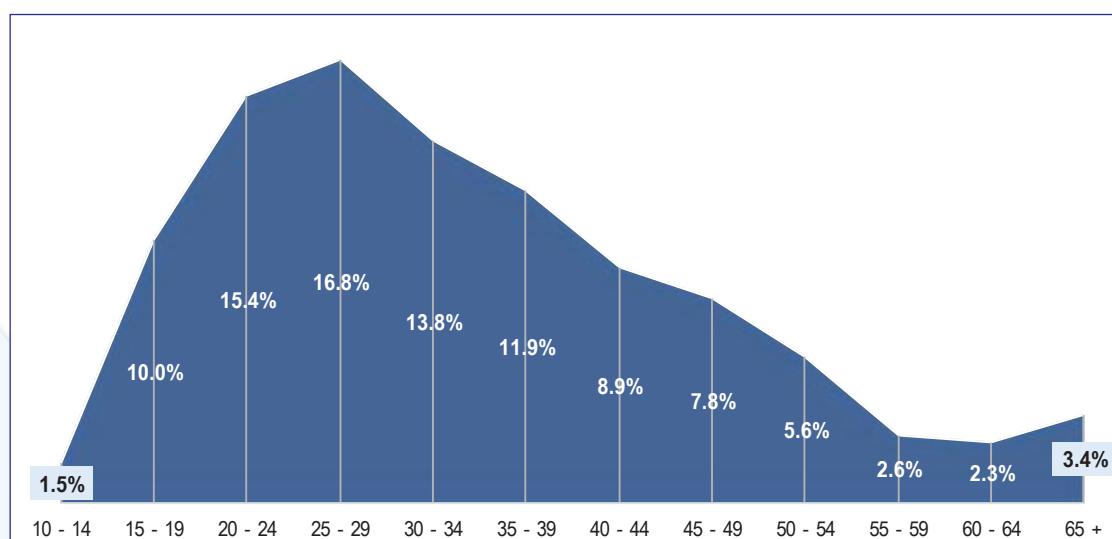
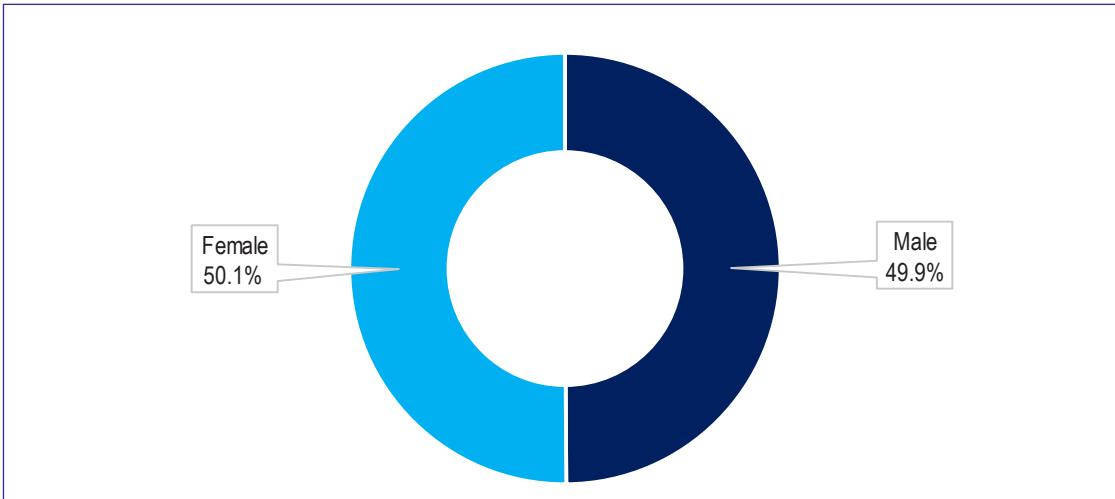
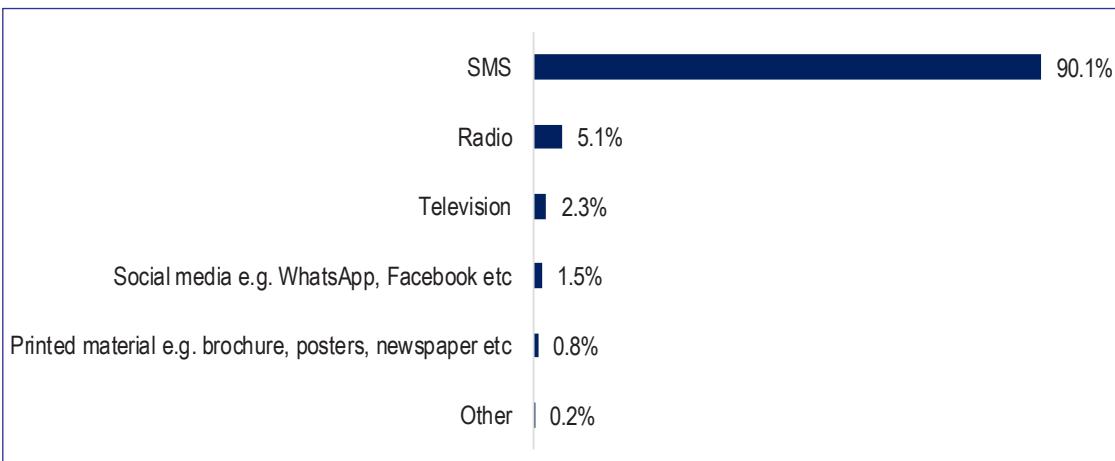
Figure 259 Sensitisation on Digital Financial Services by Age-group; 2022

Figure 260: Sensitised Individuals on Digital Financial Services across Sex; 2022

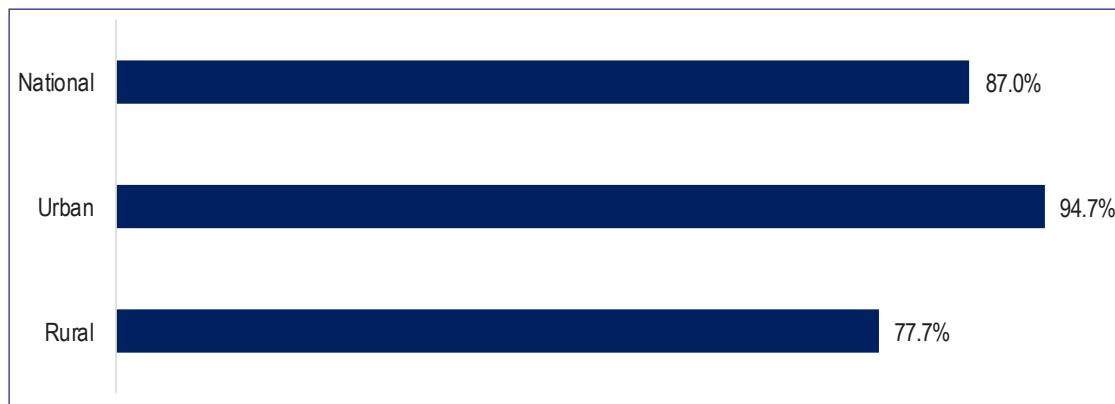
7.2.25. Channel of communication Most Preferred for Receiving Digital Financial Services Sensitization

The survey showed that the majority of individuals aged 10 years and older that used DFS preferred receiving sensitization information on DFS through SMS. Specifically, 90.1 percent of DFS users preferred receiving information related to DFS via SMS followed by radio and television at 5.1 percent and 2.3 percent respectively. Under 3.0 percent of DFS user preferred to receive DFS sensitization information through social media, print and other media.

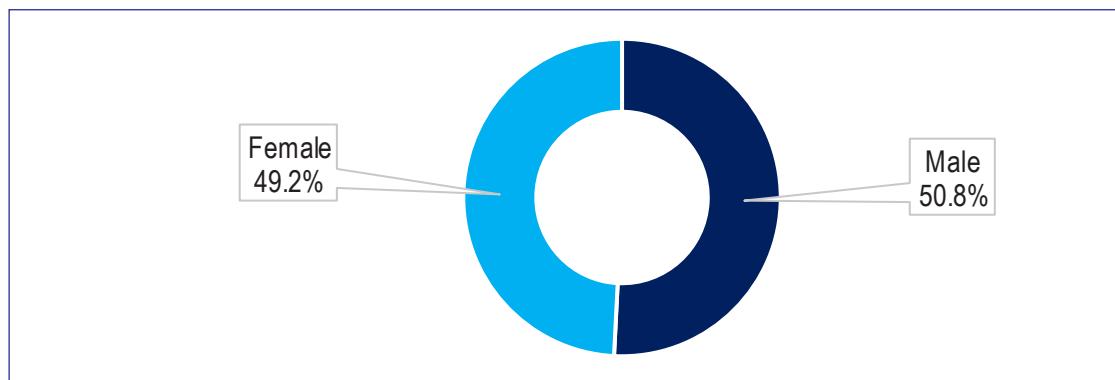
Figure 261: Most Preferred Channel for Receiving Sensitisation on Digital Financial Services; 2022

7.2.26. Ability to use Digital Financial Services Independently

With regards to using DFS independently, results from the survey revealed that 87.0 percent of individuals aged 10 years and older that use DFS were able to use the services independently (without any help). Further, independent usage of DFS was reportedly higher among urban as well as rural users at 94.7 percent and 77.7 percent of DFS users respectively.

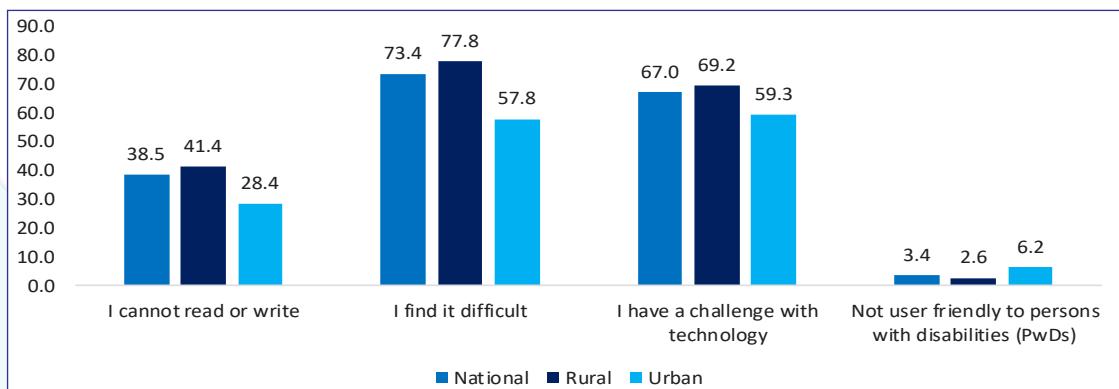
Figure 262: Ability to use Digital Financial Services Independently by Region; 2022

By sex, majority of DFS users who reportedly used DFS without any assistance were males and accounted for 50.8 percent users. Female DFS users accounted for 49.2 percent of users of DFS who are able to use DFS independently.

Figure 263: Ability to use Digital Financial Services Independently by Sex; 2022

7.2.27. Reasons for Not Being able to Use Digital Financial Services Independently

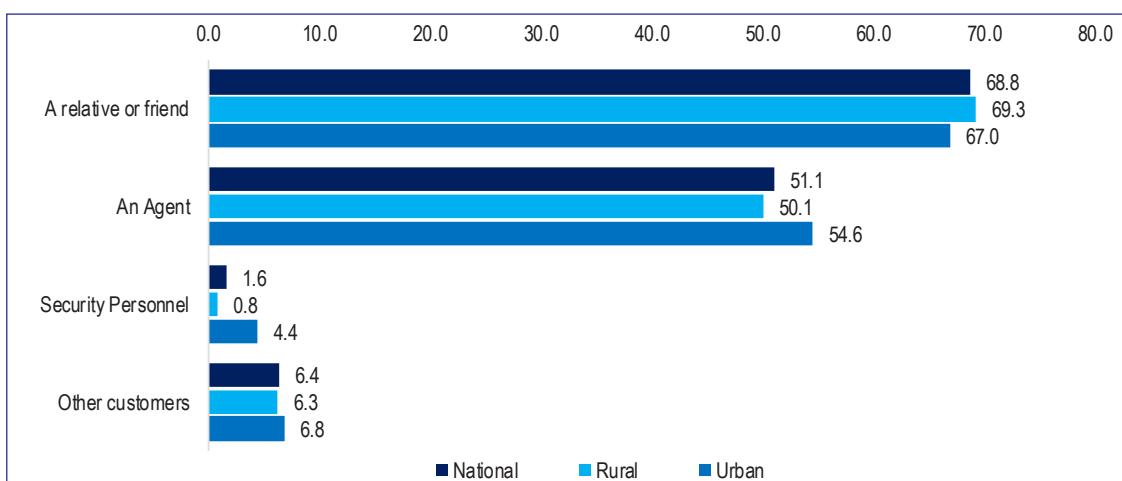
The survey established that the majority of Digital Financial Service users that were not able to use a DFS platform independently attributed this to the platform being difficult or having challenges with ICT technologies. Specifically, 73.0 percent of DFS users that were unable to use a DFS platform independently found the platform difficult to use while 67.0 percent had challenges with using ICT technologies. The proportion of DFS users in rural areas that attributed their inability to use DFS platforms independently to the platform being difficult, challenges with technology or their inability to read or write were higher than users in urban areas.

Figure 264: Reasons for Not Being able to Use Digital Financial Services Independently by Region: 2022

7.2.28. Provision of Assistance to Users of Digital Financial Services

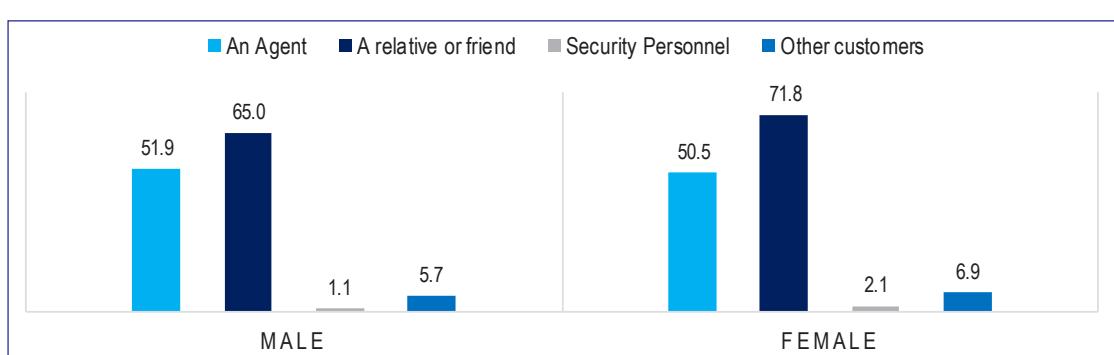
The survey revealed that the majority of users who indicated they could not use DFS platforms independently reportedly received assistance from either known persons or an agent. Specifically, 68.8 percent of these individuals were assisted by a friend or relative while 51.1 percent were assisted by an agent. Some DFS users reported obtaining assistance from security personnel and other DFS customers. By region, among urban DFS users, the majority were assisted by DFS agents while seeking assistance from friends and relatives was more prevalent among rural DFS users.

Figure 265: Persons Providing Assistance to Digital Financial Service Users by Region: 2022



With regards to sex, it was observed that a relatively higher proportion of female DFS users that could not independently use a DFS platform obtained assistance from a known person (friend or relative) when using the platform than that of male users. On the other hand, the proportion of male DFS users that sought help from DFS agents, other DFS customers or security personnel was similar to that of female DFS users.

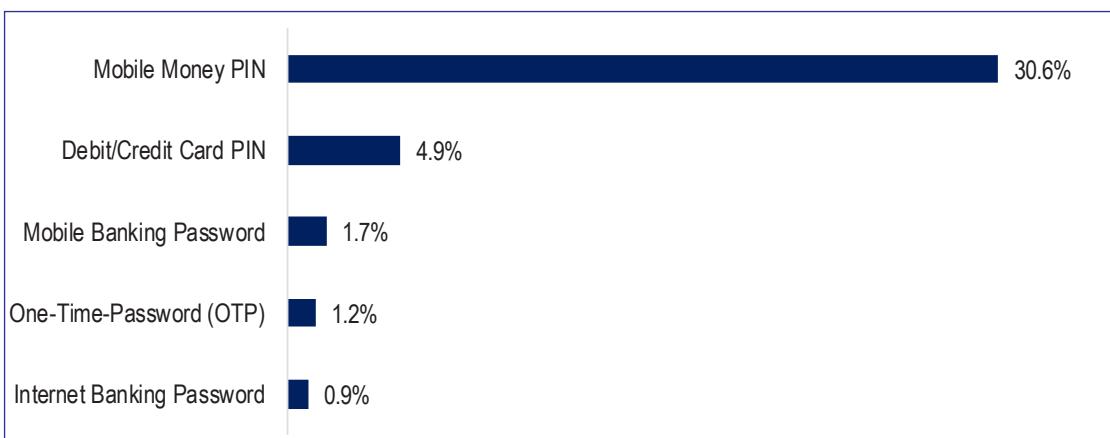
Figure 266: Persons Providing Assistance to Digital Financial Service Users by Sex: 2022



7.2.29. Sharing of PIN across Different Types of Services

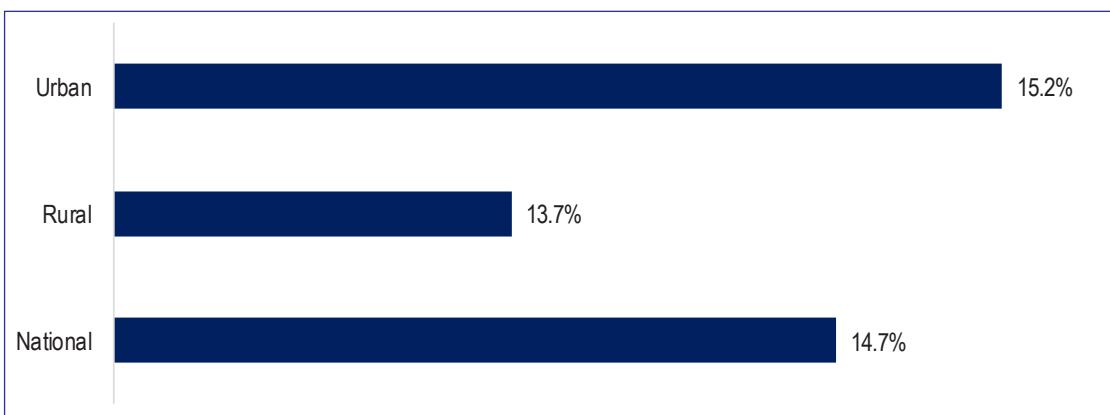
The survey estimated that the majority of individuals that were able to use DFS platforms without any assistance had share their mobile money Personal Identification Number (PIN) accounting for 30.6 percent. However, sharing of PINs or passwords for other DFS services was less prevalent and accounted for less than 5.0 percent among individuals that reported using DFS platforms without any assistance.

Figure 267: Distribution of Individuals that Shared their Personal Identification Number; 2022



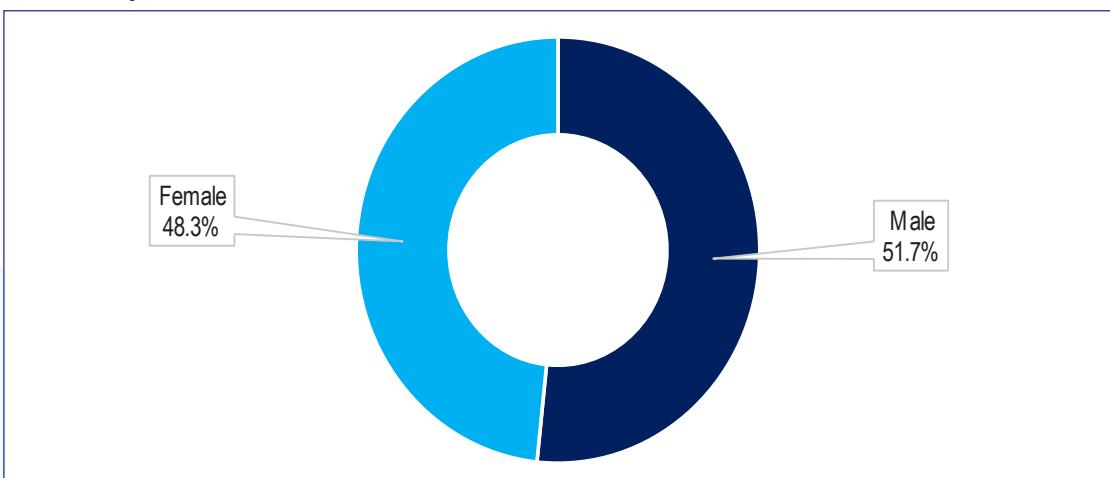
The survey established that only 14.7 percent of DFS users reportedly changed their PIN after sharing it. Further, 15.2 percent of DFS users reported changing the PIN among urban users compared to 13.7 percent of DFS users among rural users.

Figure 268: Individuals that Changed their PIN after Sharing Across Regions; 2022



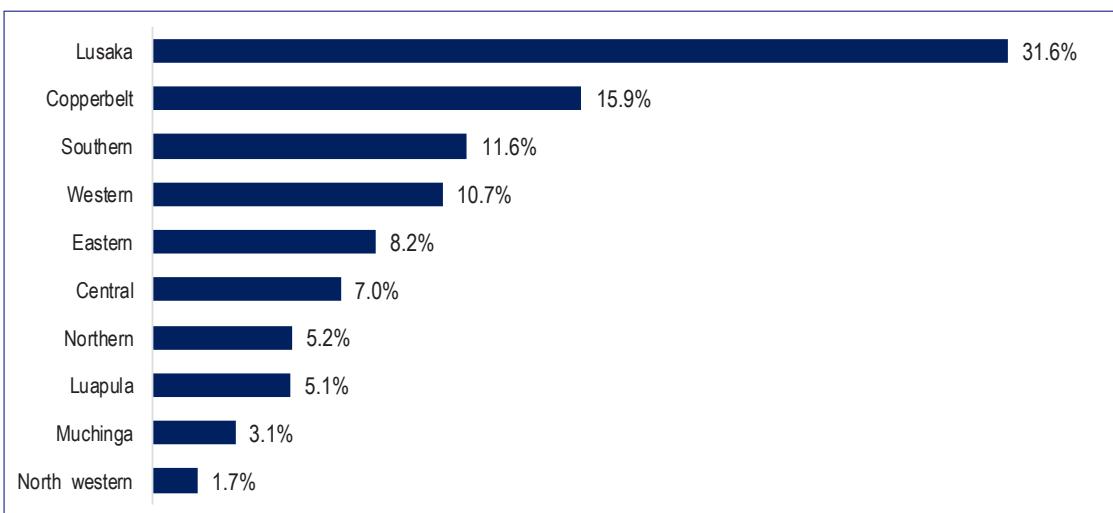
The survey estimated that the majority of individuals aged 10 years and older that reported having changed their PIN or password after sharing it were males and accounted for 51.7 percent of DFS users while females accounted for 48.3 percent.

Figure 269: Distribution of Individuals that Changed their PIN after Sharing Across Sex Groups; 2022



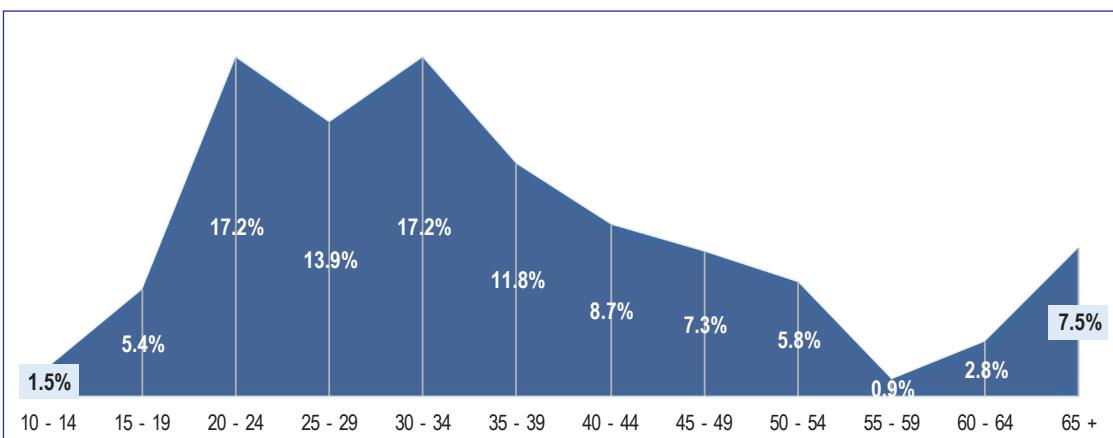
By province, Lusaka Province had the largest proportion of DFS users that indicated changing their password after sharing it followed by the Copperbelt Province at 31.6 percent and 15.9 percent of users respectively. Muchinga and Northern Provinces reported lower proportions of DFS users that reportedly changed their PIN after sharing it with someone else.

Figure 270: Individuals that changed their PIN after sharing it with someone by Province; 2022



It was further established that the majority of DFS user that had reportedly changed their PIN after sharing it with someone else were below 35 years and accounted for 55.1 percent of users.

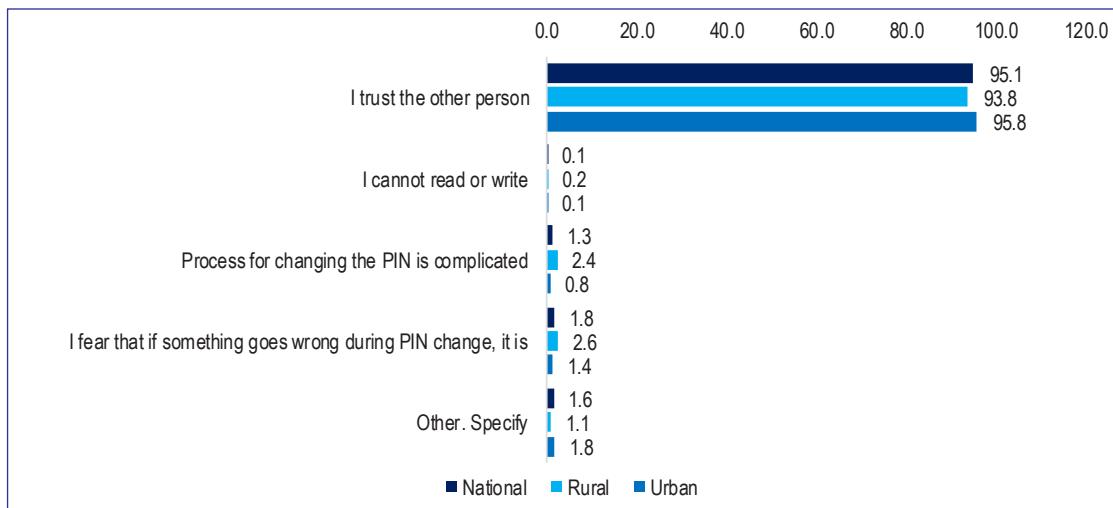
Figure 271: Individuals that Changed their PIN after Sharing it with someone by Age Group: 2022



7.2.30. Reasons for Not Changing the PIN after sharing it with someone

Survey results showed that 95.1 percent of DFS users did not change the PIN because they trusted the person they shared it with. The proportions of DFS users that shared the PIN and maintained it was equally higher among DFS users in urban as well as rural areas. Other reasons for maintaining the PIN after sharing it were less prevalent among users of DFS (see Figure 257).

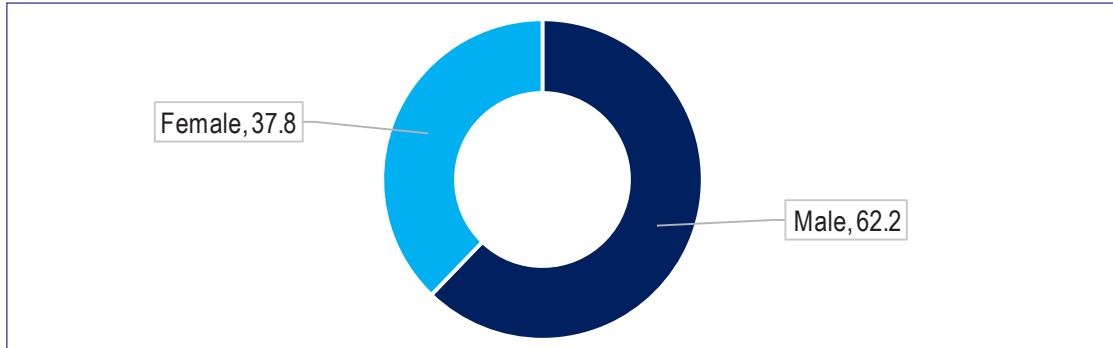
Figure 272: Main Reason for not Changing PIN after Sharing with Someone by Region; 2022



7.2.31. Investment in Digital Currencies

The survey revealed that only 0.8 percent of individuals aged 10 years and older that had invested in any form of digital currency. Of this proportion, 62.2 percent were male while females constituted 37.8 percent. By age, majority of investors in digital currencies were between 30 and 55 years.

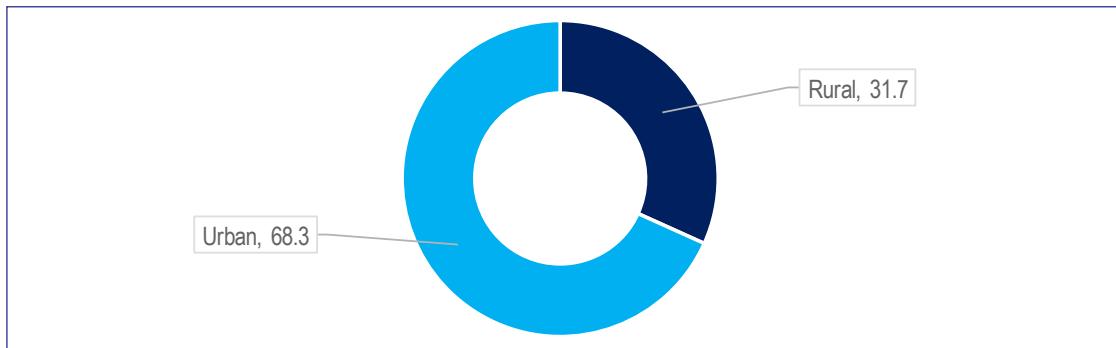
Figure 273: Investment in Digital Currencies by Sex; 2022



7.2.32. Awareness of Risks Associated with Digital Currencies

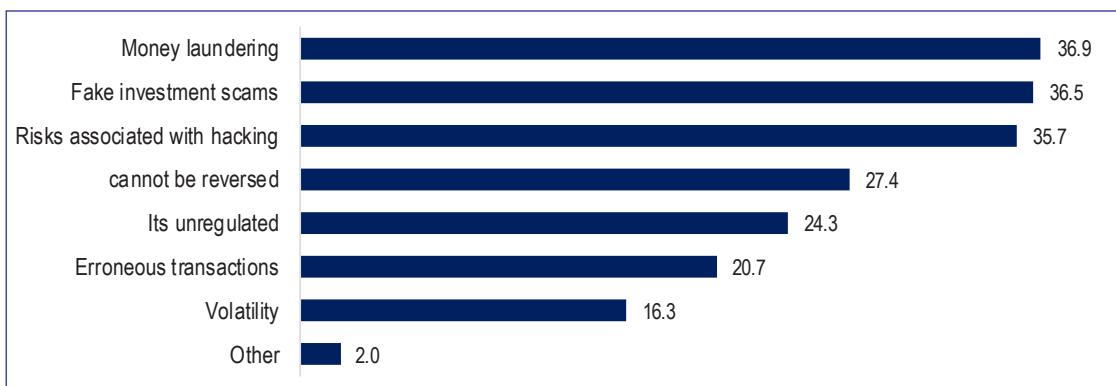
The survey estimated that only 2.3 percent of individuals aged 10 years and older were aware of the risks associated with investing in digital currencies. Of this proportion, individuals in Lusaka Province had the highest level of awareness, accounting for 47.9 percent. With respect to region, 68.3 percent of individuals that were aware of the risks associated with digital currencies were based in urban areas whilst 31.7 percent were based in rural areas. By sex, among those that were aware of the risks associated with digital currency investments 64.2 percent were males and 35.8 percent were female.

Figure 274: Knowledge of Risks of Investing in Digital Currency across Sex Groups; 2022



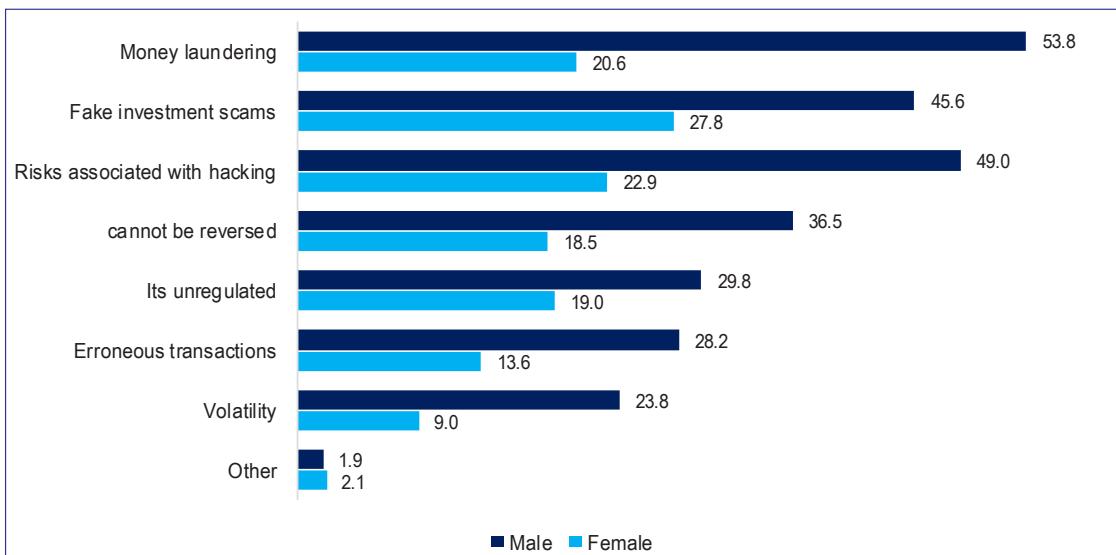
The majority of individuals that indicated that they were aware of the risks associated with digital currencies had knowledge of money laundering, fake investment scams and risks accosted with hacking and accounted for 36.9 percent, 36.5 percent and 35.7 percent respectively. The least attribute that individuals that reported to be aware of digital currency risks were related to the volatility of the investments as well as risks associated with erroneous transactions accounting for 16.3 percent and 20.7 percent respectively.

Figure 275: Knowledge of Risks Associated with Digital Currency; 2022



The survey further established that there were more males that were aware of the risks associated with digital currencies compared to females across the various risks assessed in the survey.

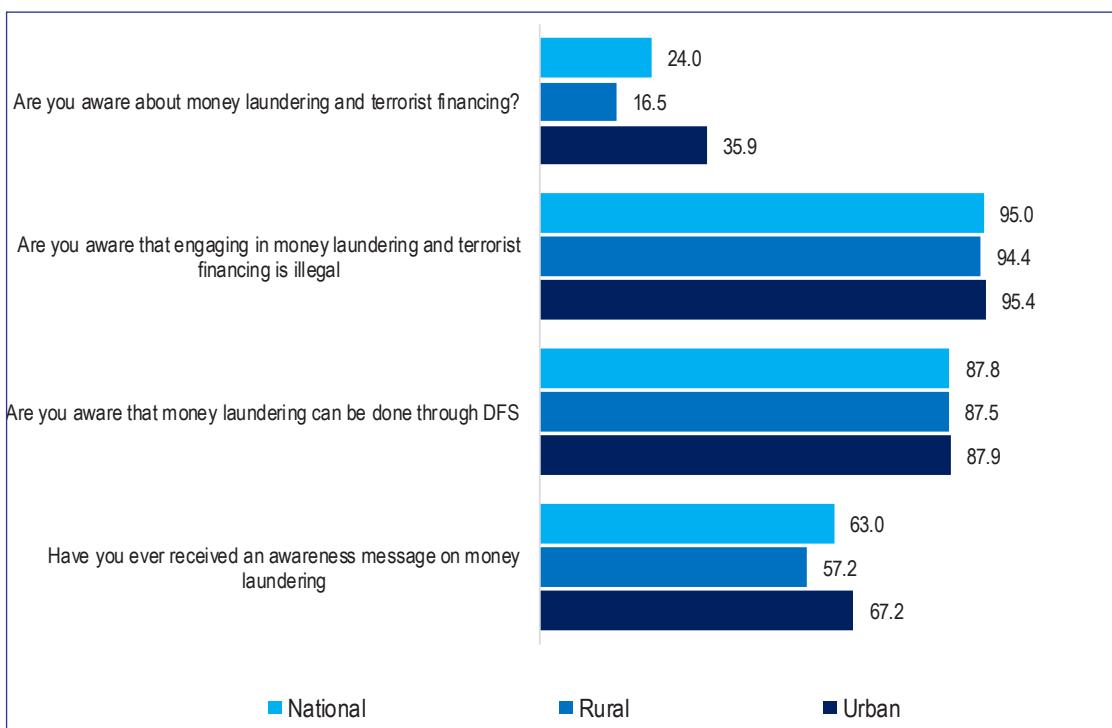
Figure 276: Knowledge of Risks Associated with Digital Currency across Sex; 2022



7.2.33. Awareness of money laundering and terrorist financing

The survey established that 24.0 percent of individuals knew about money laundering and terrorism financing. Of these, 63.0 percent reported receiving some awareness message on money laundering. Survey results further showed that among those with knowledge of money laundering and terrorism financing, 95.0 percent knew that it was illegal and 87.8 percent knew DFS could be used as a conduit for money laundering. The awareness of money laundering and terrorism financing was higher among individuals in urban areas compared to individuals in rural areas. Specifically, 35.9 percent of individuals in urban areas knew about money laundering and terrorism financing compared to 16.5 percent in rural areas. In terms of the awareness about the legality of money laundering and terrorism financing, majority of individuals both in urban and in rural areas were aware it was illegal and also that DFS could be used as a conduit for money laundering.

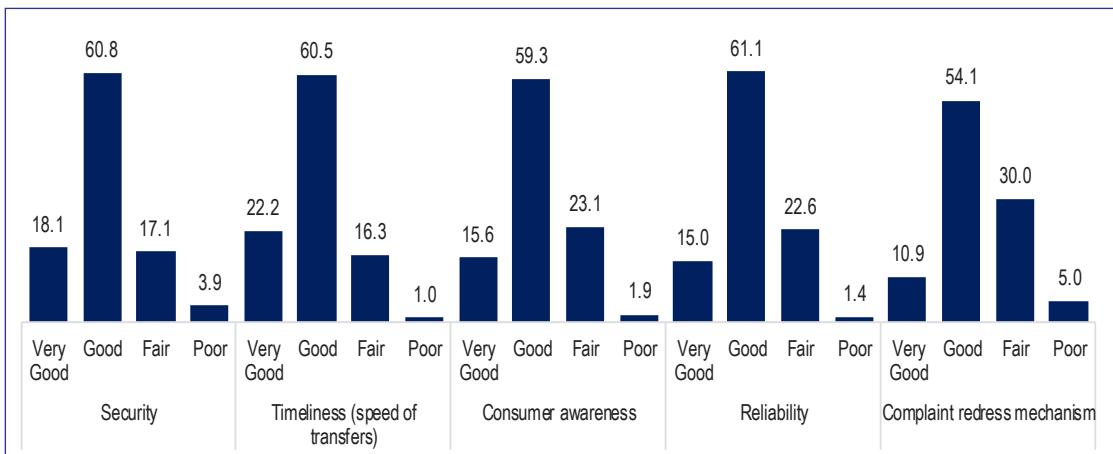
Figure 277: Awareness of money laundering and terrorist financing by Individuals within Regions; 2022



7.2.34. Ratings for Attributes of Quality of Experience for Digital Financial Services

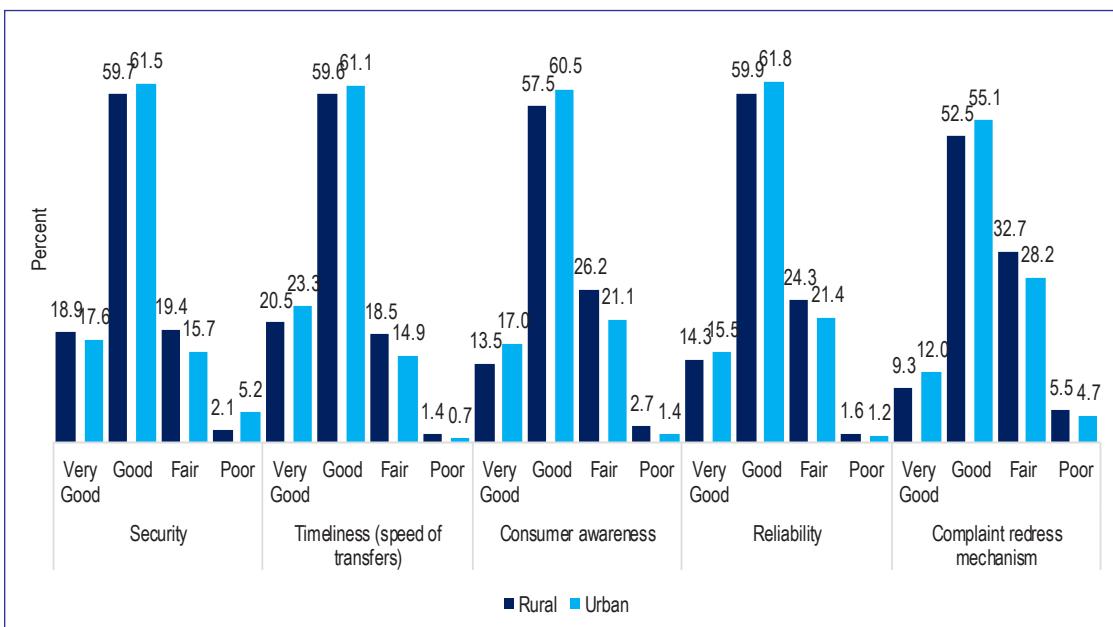
The survey showed that users of DFS rated favourably various attributes of their experience while using DFS in the country. Notably, less than 20.0 percent of users of DFS rated the services as fair or poor on attributes related to reliability of services, timeliness of the transfers and consumer awareness. However, more than 25.0 percent of users of DFS rated complaint resolution as well as security as either fair or poor. These attributes presented the greatest scope for improvement in consumer experience.

Figure 278: Attributes of Consumer Experience using Digital Financial Services; 2022



There were minimal differences in the rating of quality of experience related to DFS between users in rural and urban areas across all the attributes of quality of experience. The regional assessment revealed that complaint redress, reliability and consumer awareness were the least rated attributes in both rural and urban areas.

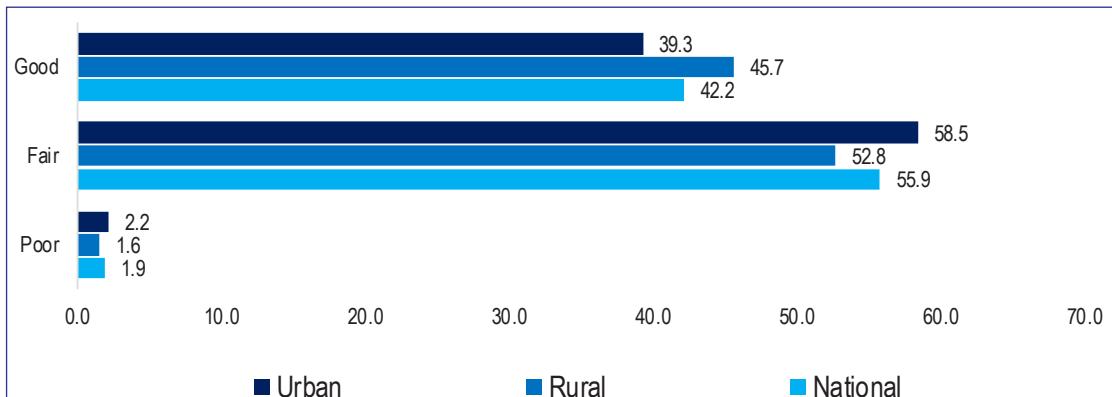
Figure 279: Attributes of Consumer Experience using Digital Financial Services across Regions; 2022



7.2.35. Perception of overall service delivery for frequently used DFS

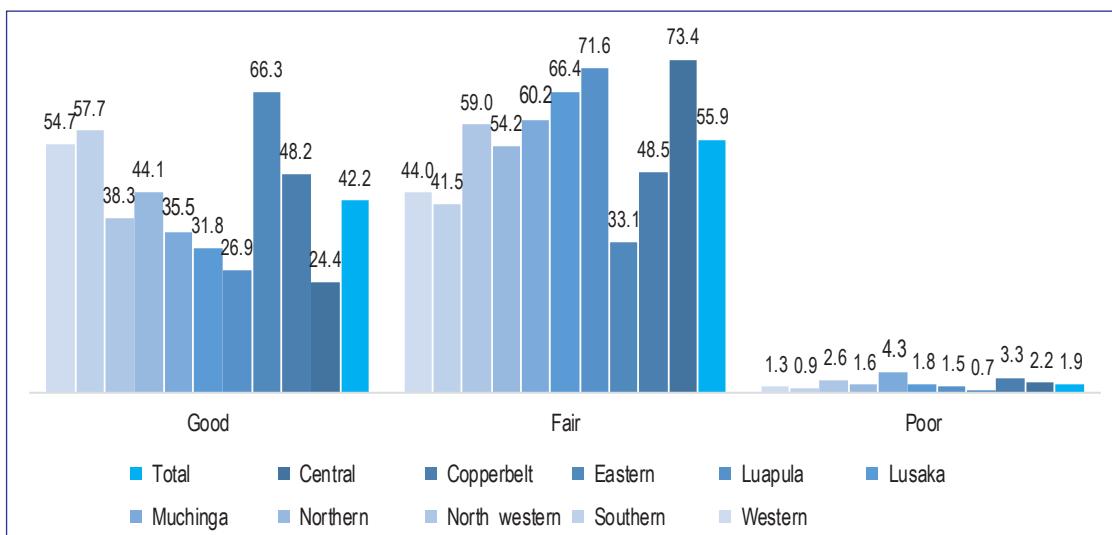
The survey established that about 98.1 percent of individuals aged 10 years and older in the country perceive the overall service delivery for frequently used DFS as good or fair. Among rural DFS users, 45.7 percent rated overall service delivery of frequently used DFS as good compared to 39.3 percent for urban areas.

Figure 280: Perception of overall service delivery for frequently used DFS by Individuals within Regions; 2022



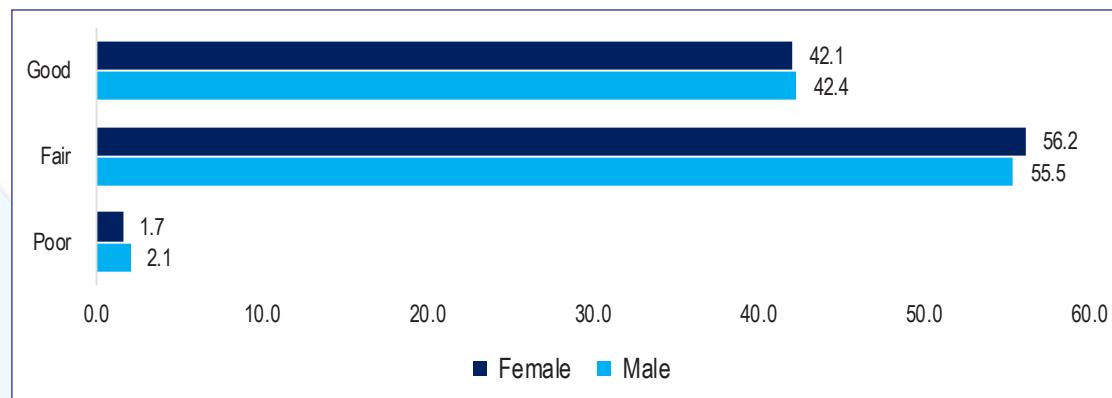
The survey established that Eastern, Southern and Western Provinces accounted for the highest percentage of individuals aged 10 years and older that perceive the overall service delivery for the frequently used DFS as good.

Figure 281: Perception of overall service delivery for frequently used DFS by individuals across provinces; 2022



By sex, 56.2 percent of males perceive the overall service delivery for the frequently used DFS as fair compared to females at 55.5 percent. However, nearly as many males as females perceived the overall service delivery for the frequently used DFS.

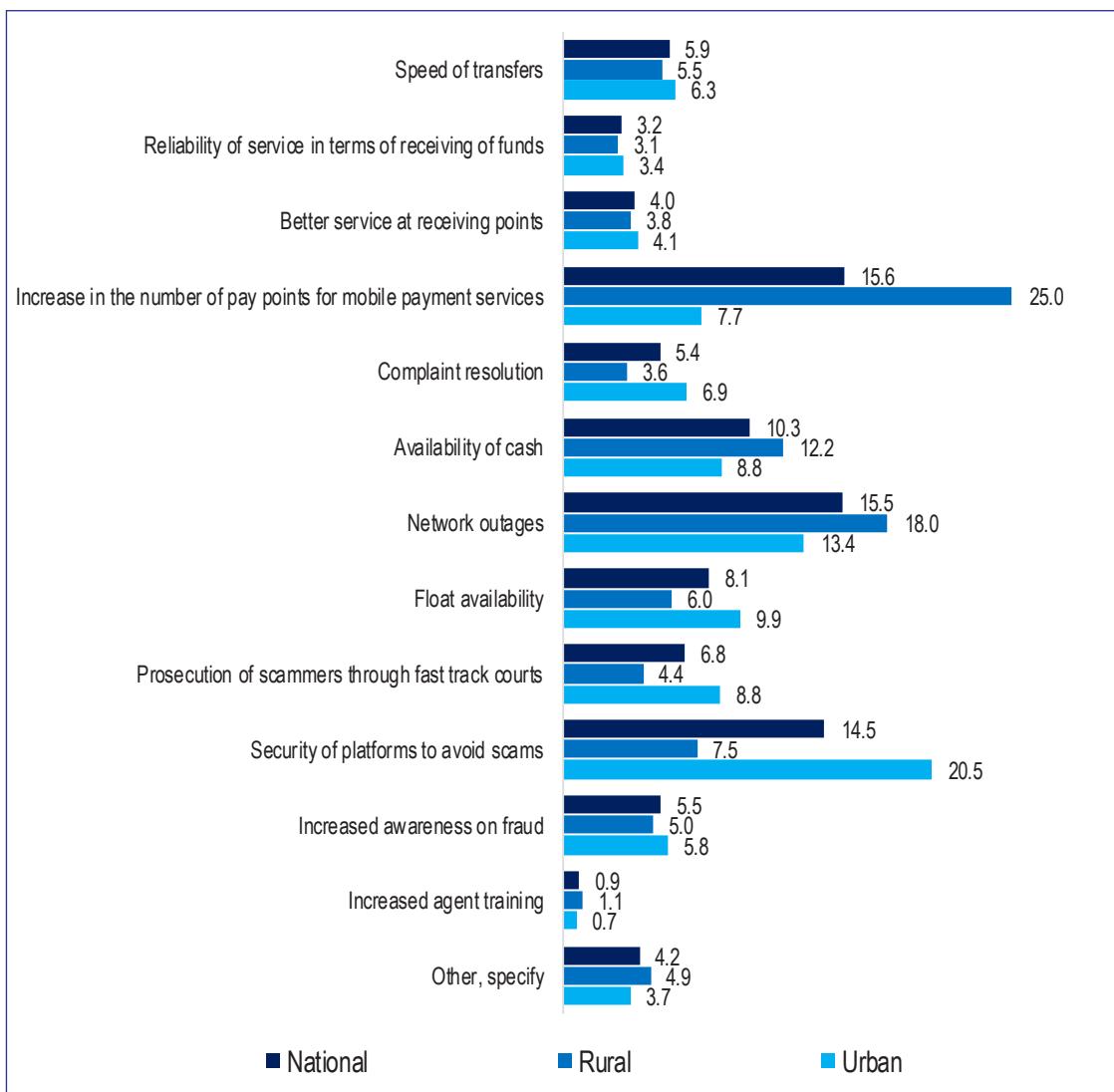
Figure 282: Perception of overall service delivery for frequently used DFS within Sex Groups; 2022



7.2.36. Main Area of Improvement in Provision of DFS

Results show that security of DFS platform, network outages and number of pay points were the main areas of improvement reported by most DFS users. Further, increase in the number of pay points for mobile money services and network outages were reportedly the main areas of concern among rural DFS users whereas the main area of concern for among urban DFS users was the security of DFS platforms.

Figure 283: Main Area of Improvement in Provision of DFS by Individuals across provinces, 2022



CHAPTER 8

ACCESS AND USAGE OF POSTAL AND COURIER SERVICES



8. ACCESS AND USAGE OF POSTAL AND COURIER SERVICES

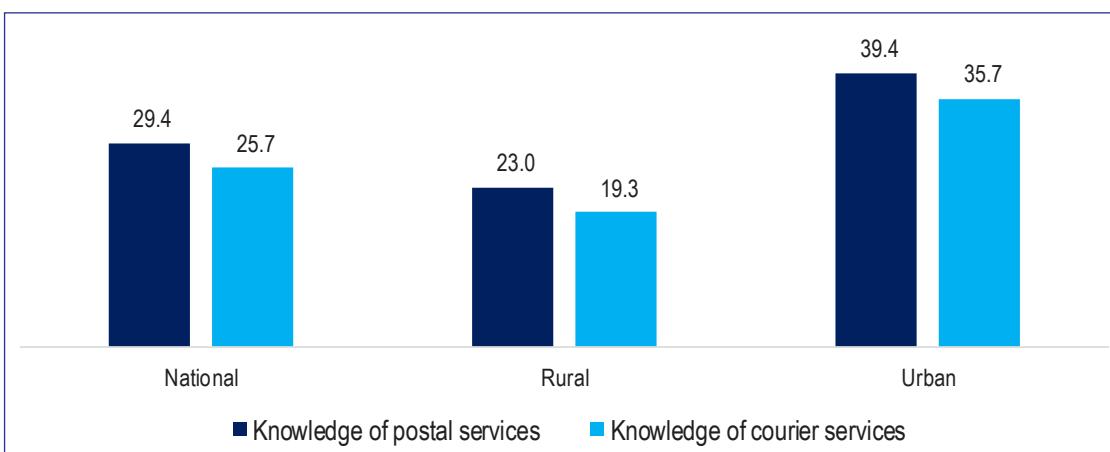
This chapter highlights the findings of the 2022 National Survey on Access and Usage of ICTs by Individuals related to the extent of usage of postal and courier services by individuals aged 10 years and older in Zambia. An assessment was made within various demographic and socio-economic groupings and across the strata regarding various attributes related to usage of postal and courier services in the country. To the extent possible, an attempt was made to explain some of the factors that had inhibited extensive adoption and usage of postal and courier services in the country. The chapter also highlights some attributes related to quality of experience encountered when using postal and courier services as well as aspects related to redress for challenges encountered while using postal and courier services.

8.1. Access and Usage of Postal Services by Individuals

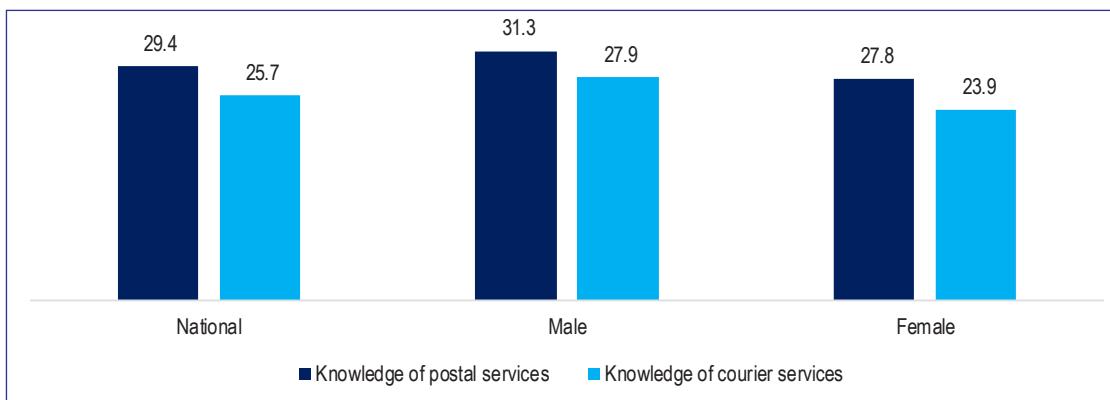
8.1.1. Awareness on Postal and Courier Services

The survey estimated that the proportion of individuals aged 10 years and older across the country who were aware of the availability of postal and courier services was 29.4 percent and 25.7 percent respectively. The level of awareness of postal services among individuals was relatively higher in both urban and rural populations than that of courier services. Specifically, the level of awareness of postal services was 39.4 percent in urban areas while the level of awareness in rural areas was 23.0 percent. On the other hand, the level of awareness of courier services was 35.7 percent in urban areas compared to 19.3 percent among the rural population.

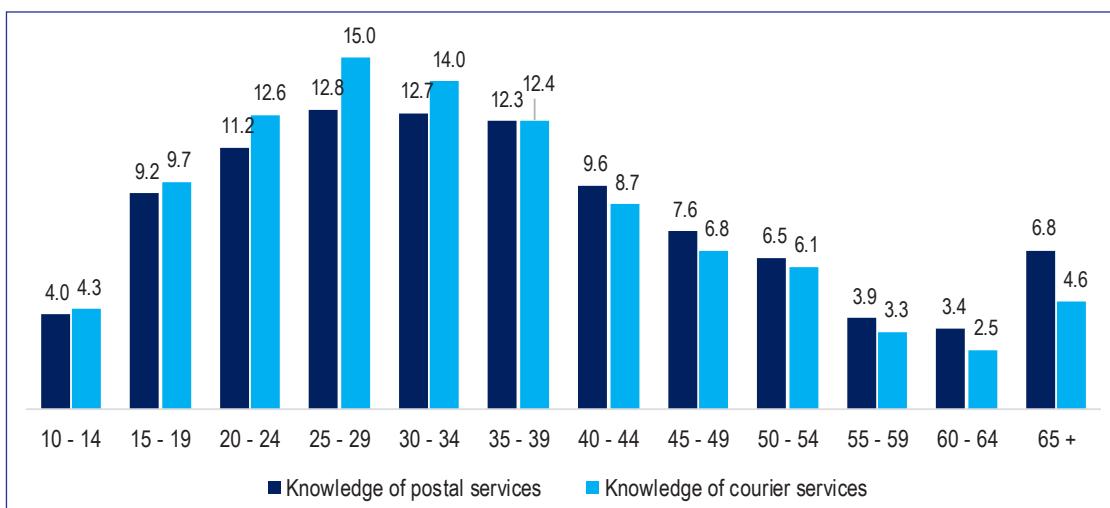
Figure 284: Awareness of Postal and Courier Services in Rural and Urban Areas; 2022



A review of the level of awareness of postal and courier services across sex revealed that awareness of both postal and courier services was higher among males than females. However, consistent with the regional assessment, the knowledge of postal services was higher in both sexes than that of courier services.

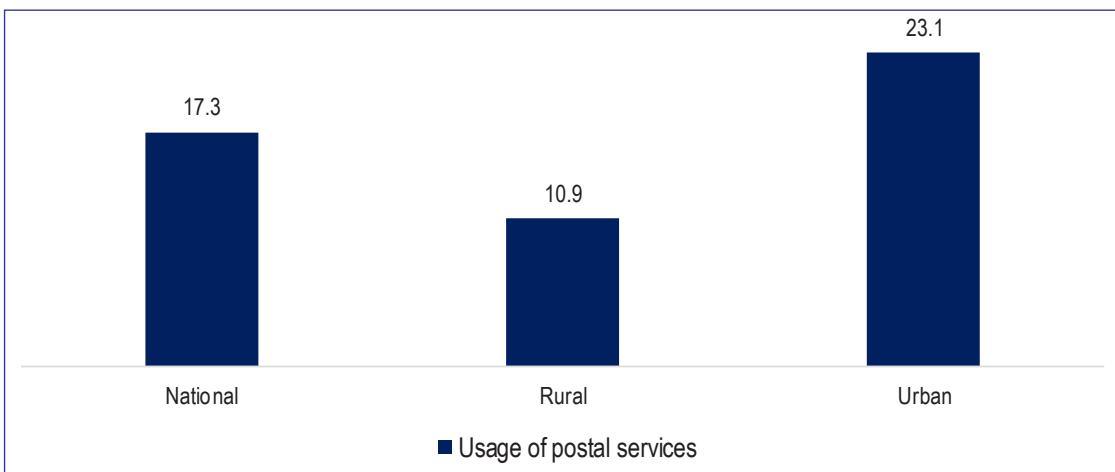
Figure 285: Awareness of Postal and Courier Services by Sex; 2022

With respect to age distribution, the survey findings indicated that awareness of both postal and courier services was higher amongst individuals that were below the age 40. However, the proportion of individuals that were aware of courier services was higher than those that were aware of postal services among the population aged 10 to 40 years. It was also noted that the proportion of individuals above the age of 65 with awareness on postal services was significantly higher than the proportion that were aware of courier services.

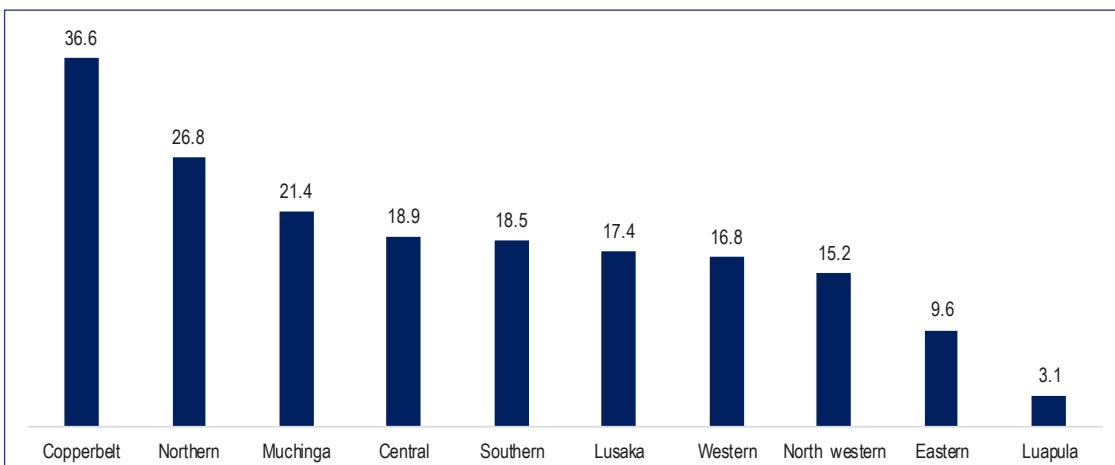
Figure 286: Awareness of Postal and Courier Services by Age; 2022

8.1.2. Usage of Postal Services

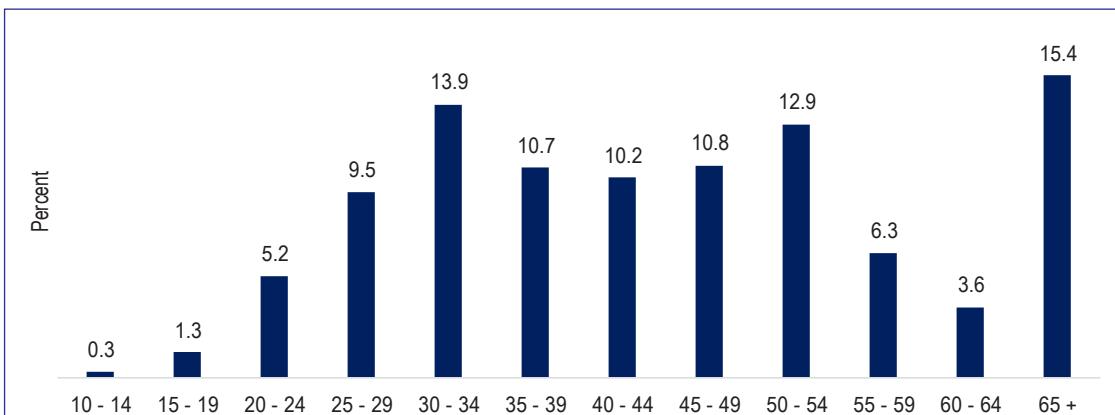
The survey established that only 17.3 percent of individuals aged 10 years and older had used postal services at least once prior to the survey. By region, usage of postal services was twice as high among the urban population as the rural population constituting 23.2 percent and 10.9 percent respectively.

Figure 287: Users of Postal Services by Region; 2022

The survey further showed that usage of postal services was highest in the Copperbelt Province at 36.6 percent, followed by the Northern Province at 26.8 percent of individuals aged 10 and older. However, usage of postal services in Luapula and Eastern Provinces were far lower than the national average at 3.1 and 9.6 percent respectively.

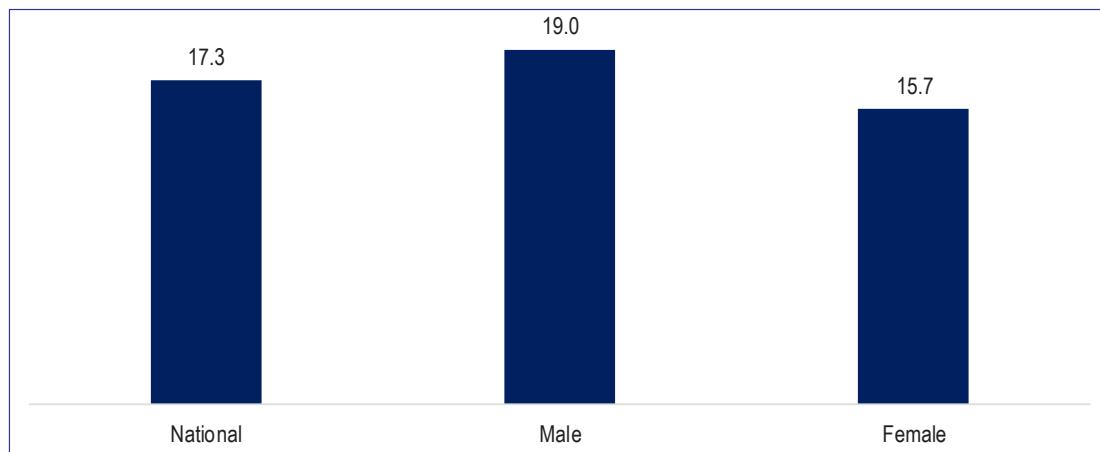
Figure 288: Usage of Postal Services by Province; 2022

The survey also indicated that usage of postal services was generally high among the individuals aged 30 to 54 and those above 64 years comprising 74 percent of postal users. Usage levels were particularly low for individuals in the age range of 10 - 14 years and 15 - 19 years constituting 0.3 percent and 1.3 percent of postal service users respectively.

Figure 289: Users of Postal Services by Age; 2022

With regards to sex, it was observed that more males than females have used postal services. Specifically, 19.0 percent of male individuals aged 10 years and older used postal service compared to 15.7 percent females.

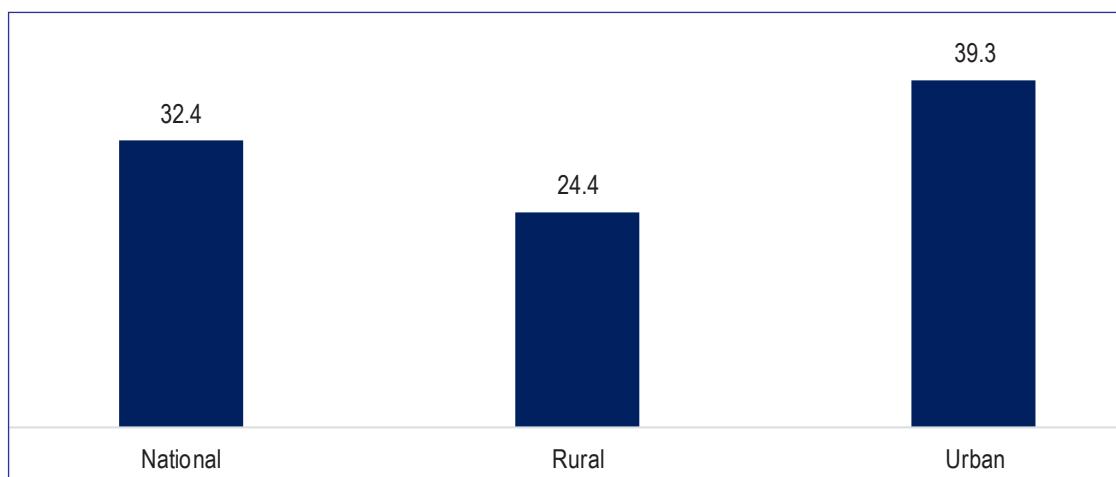
Figure 290: Users of Postal Services by Sex; 2022



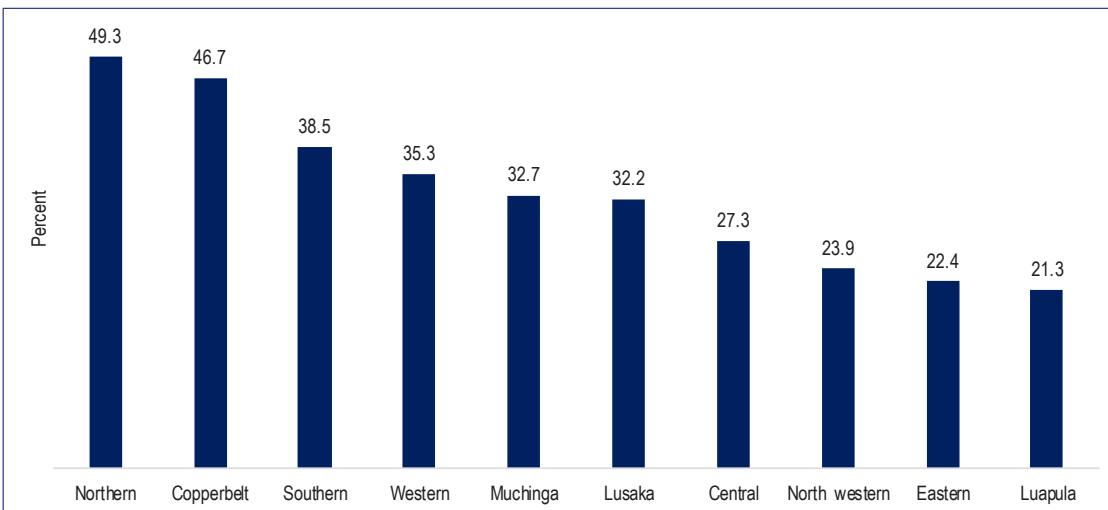
8.1.3. Usage of Courier Services

An assessment of the usage of courier services by individuals aged 10 years and older revealed that 32.4 percent of the population had used courier services at least once prior to the survey. By region, usage of courier services was higher among individuals in urban areas than those in rural areas. Specifically, 39.3 percent of the urban population had used courier services compared 24.4 percent of the rural population prior to the survey.

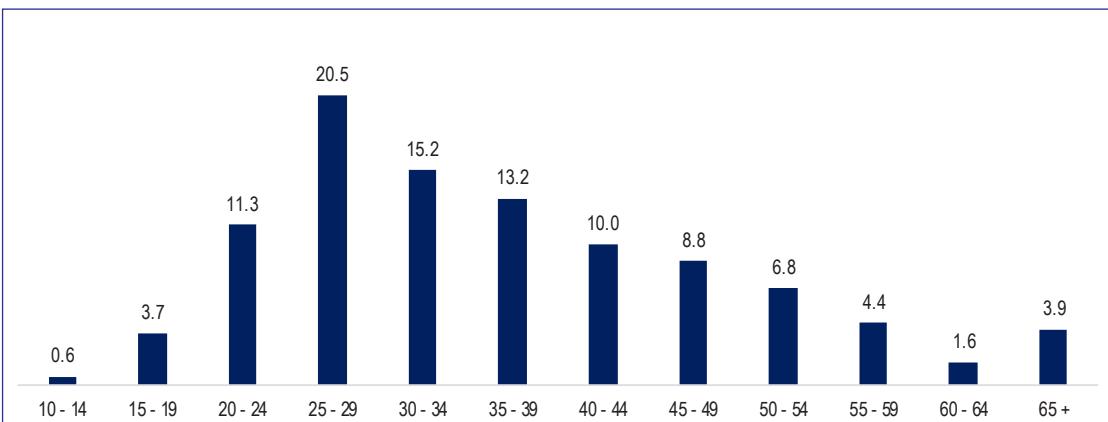
Figure 291: Usage of Courier Service by Province; 2022



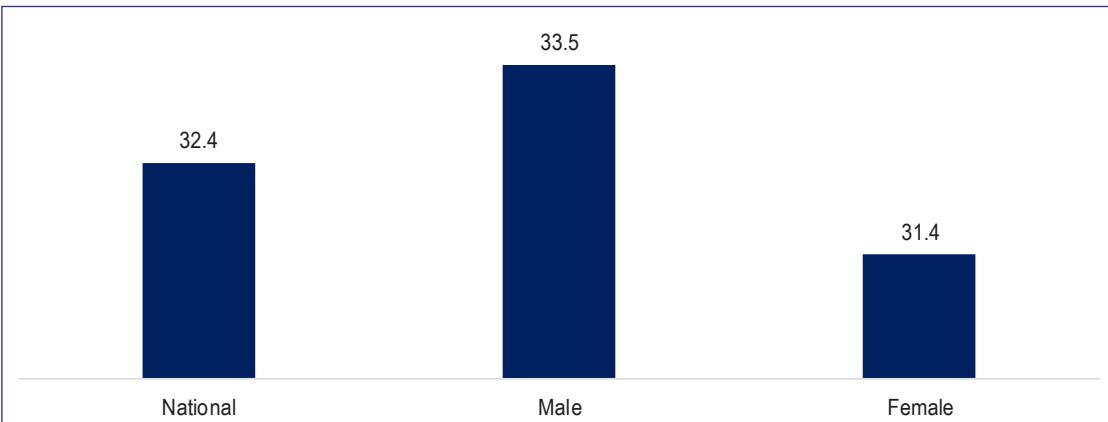
Results from usage of courier services by province, showed that the Northern Province had the highest proportion of users of courier services at 49.3 percent of individuals aged 10 and older in the province followed by the Copperbelt Province at 46.7 percent. However, usage of courier services in Luapula, Eastern and North-Western Provinces was significantly lower than the national average at 21.3 percent, 22.4 percent and 23.9 percent respectively.

Figure 292: Usage of Courier Service by Province; 2022

An assessment of the usage levels of courier services by age distribution revealed that the majority of users of courier services were between the ages 20 to 44 years accounting for 70.2 percent of the total users of courier services. Usage levels were particularly low among individuals in the ages 10-14 years and 60-64 years constituting 0.6 percent and 1.6 percent respectively.

Figure 293: Courier Usage by Age Distribution; 2022

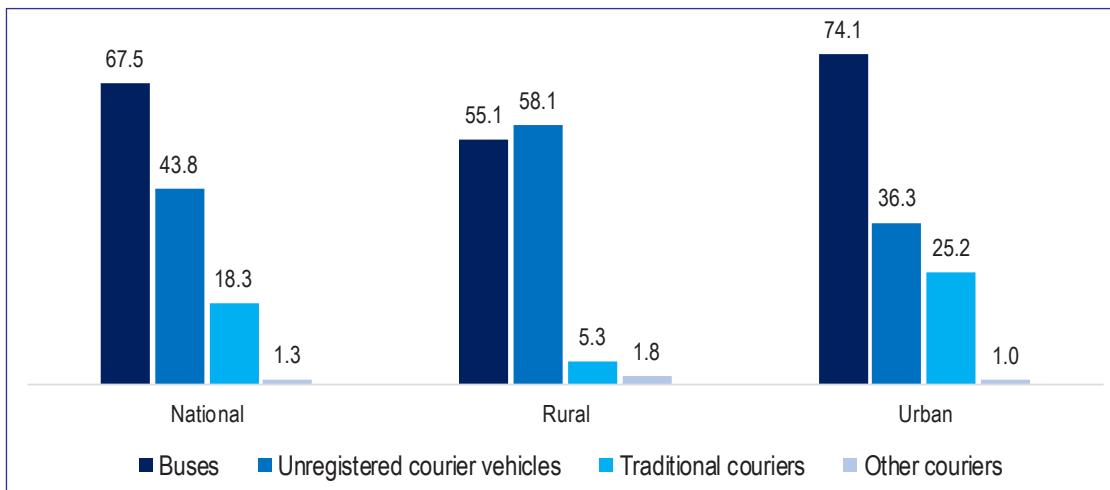
The survey also established that usage of courier services is higher among males than among females. Specifically, usage of courier services among males was 33.5 percent whereas female courier usage was estimated at 31.4 percent.

Figure 294: Courier Usage by Sex; 2022

8.1.4. Types of Courier Services Used

Results from the survey indicated that courier services provided by bus companies and unregistered courier vehicles were the main modes of delivery used by individuals that had used courier services. Whilst bus companies accounted for 67.5 percent of courier services used, unregistered courier vehicles accounted for 43.8 percent of courier services used. The usage of traditional courier companies was relatively lower than that of bus companies and unregistered couriers accounting for 18.3 percent of courier users. Furthermore, usage of bus company couriers was significantly higher among the users based in urban areas than rural areas whereas the usage of unregistered courier vehicles was as high as the usage of Bus Companies among courier users based in rural areas.

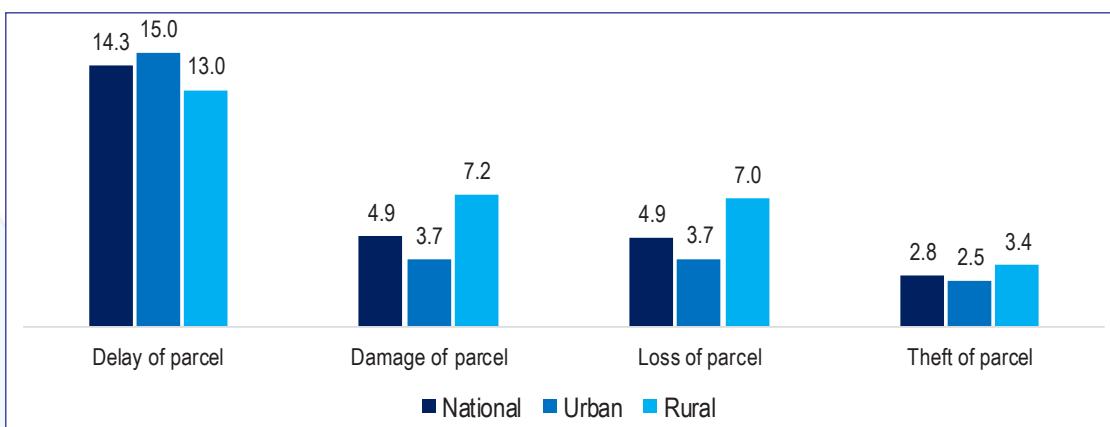
Figure 295: Type of Courier Service Used: 2022



8.1.5. Challenges Experienced by Individuals in the Usage of Postal and Courier Services

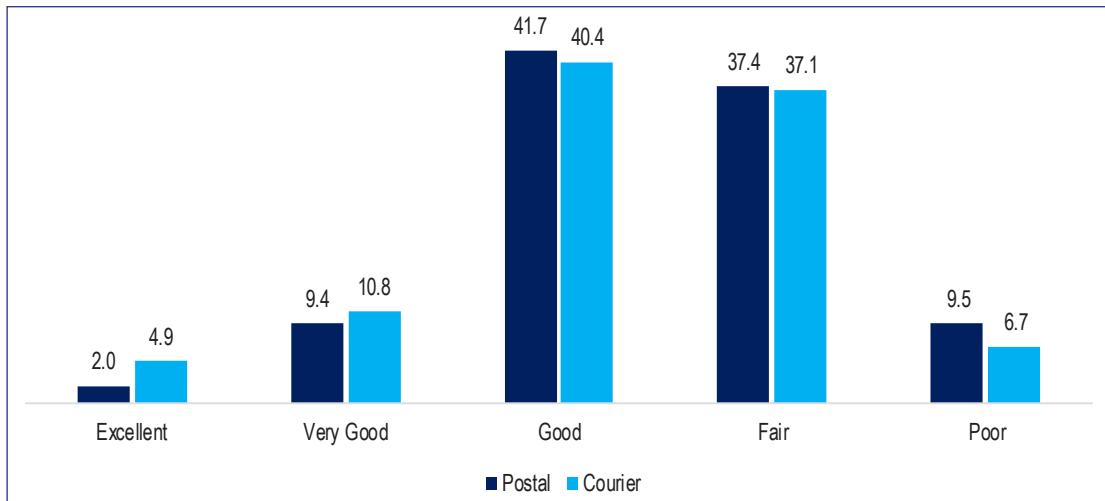
An assessment of the challenges experienced by users of postal and courier services showed that delay of parcel delivery was the most common challenge faced by individuals that had used postal and courier services before and accounted for 14.3 percent of these users. By region, delay of parcels was observed to be comparatively higher among urban based users than users in rural areas. However, other challenges, aside from the delay of parcel, were noted to more prevalent among rural individuals than urban individuals.

Figure 296: Challenges Experienced in the Usage of Postal and Courier Services; 2022



A comparison of the timeliness of the parcel delivery attribute by users of postal services and that of courier services revealed that the majority of users of both postal and courier services ranked the attribute as either fair or good. However, it was noted that a greater proportion of courier users ranked the service as good, very good or excellent than postal users with regards to timely delivery of parcels.

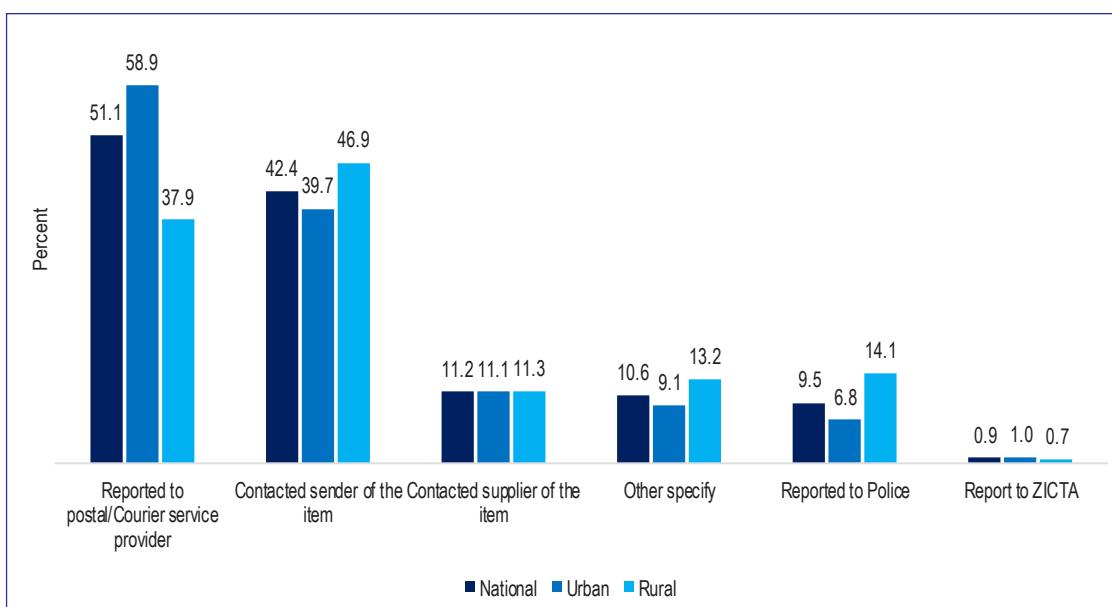
Figure 297: Ranking of Timeliness of Postal and Courier Services; 2022



8.1.6. Redress Mechanisms for Users of Postal and Courier Services

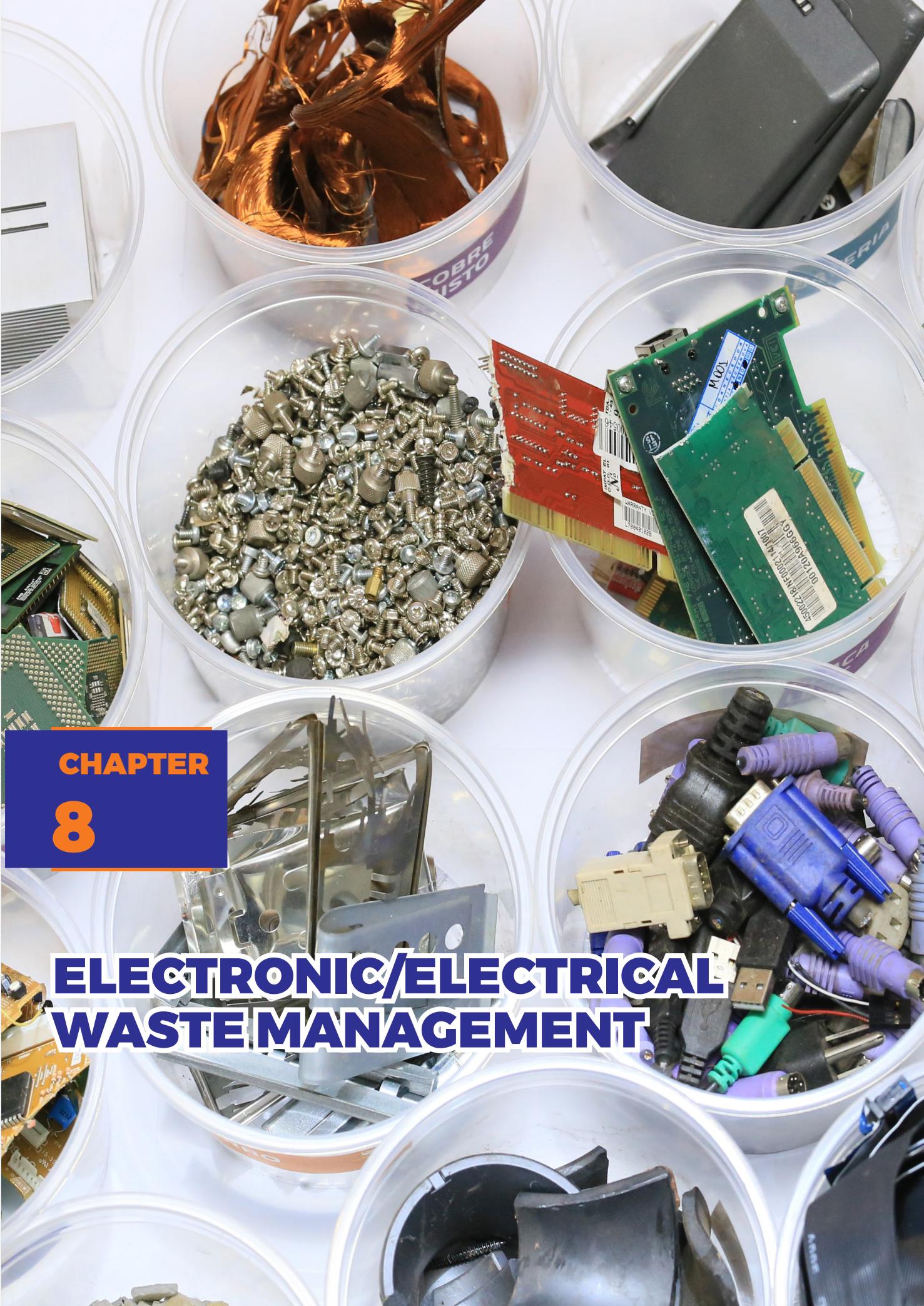
In an assessment of redress mechanisms for users of postal and courier services, the survey revealed that postal or courier users mostly reported their challenges to service providers or senders of the item/parcel. These redress mechanisms were common among both urban and rural based users of postal and courier services. A limited proportion of users reported their postal or courier related challenges to the police or the regulator of these services, ZICTA.

Figure 298: Redress Mechanism for User of Postal and Courier Services; 2022



**CHAPTER
8**

ELECTRONIC/ELECTRICAL WASTE MANAGEMENT



9. ELECTRONIC/ELECTRICAL WASTE MANAGEMENT

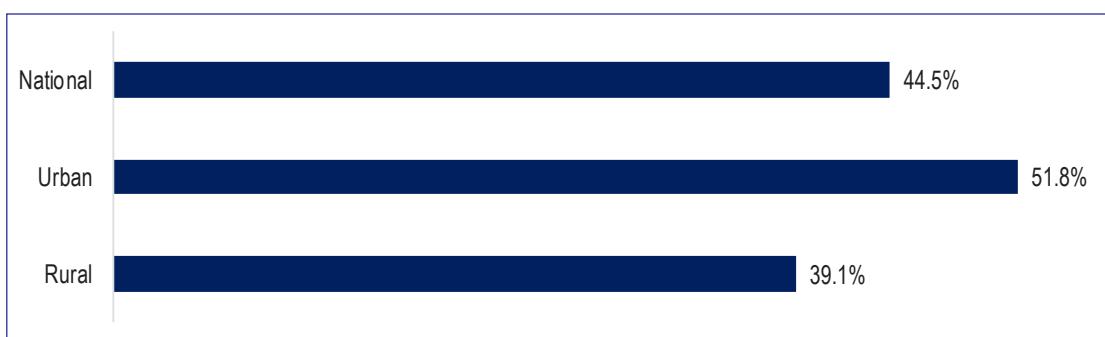
This chapter highlights the findings of the survey relating to the extent of disposal of electrical/electronic waste (e-waste) by households and individuals aged 10 years and older in Zambia. It also establishes key trends in disposal of e-waste by region, types and the volume of this waste. The chapter also provides some insights relating to levels of awareness on dangers associated with unsafe disposal of e-waste and identifies the methods of disposal of this waste that are prevalent in the country.

9.1. Management of Electronic/Electrical Waste among Households

9.1.1. Disposal of Electrical/electronic Waste

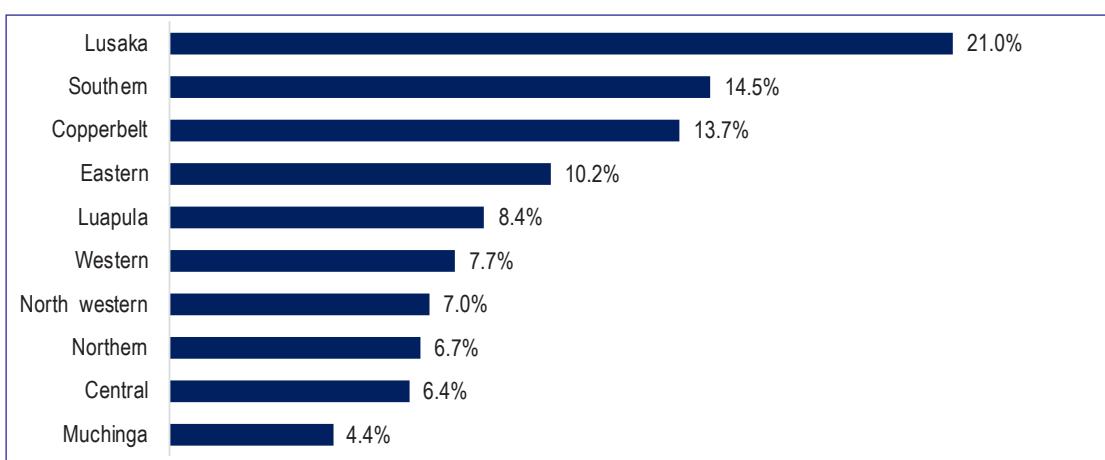
The survey estimated that 44.5 percent of households across the country had disposed some electrical/electronic items which were either damaged or were no longer useful to the households. The proportion of households that had disposed of some e-waste were higher in urban areas than in rural areas. Specifically, 51.8 percent of all the households in urban areas had disposed of some e-waste while 39.1 percent of households in rural areas had disposed of similar waste.

Figure 299: E-waste Disposal by Region; 2022



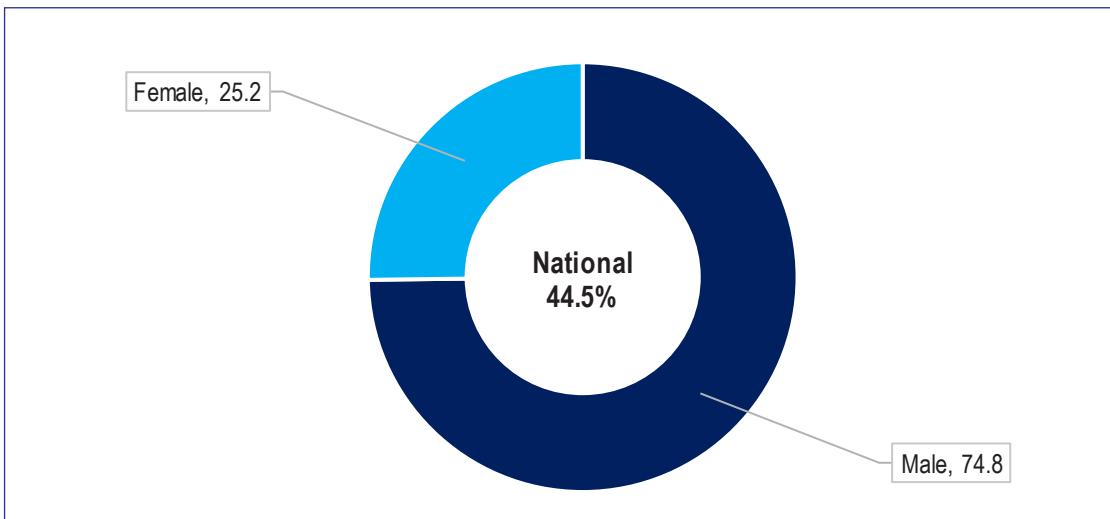
The majority of the households that had disposed of e-wastes were based in Lusaka, Southern and Copperbelt Provinces constituting 21.0 percent, 14.5 percent and 13.7 percent of all the households in the given provinces. Muchinga Province was observed to have the least proportion of households that had disposed of e-waste as they accounted for 4.4 percent of households in the province.

Figure 300: E-waste Disposal by Province; 2022



With regards to sex, the proportion of male-headed households that had disposed of some e-waste was higher than female-headed households. Specifically, male-headed household constituted 74.8 percent of households that had disposed of some e-waste while 25.2 percent were female-headed households.

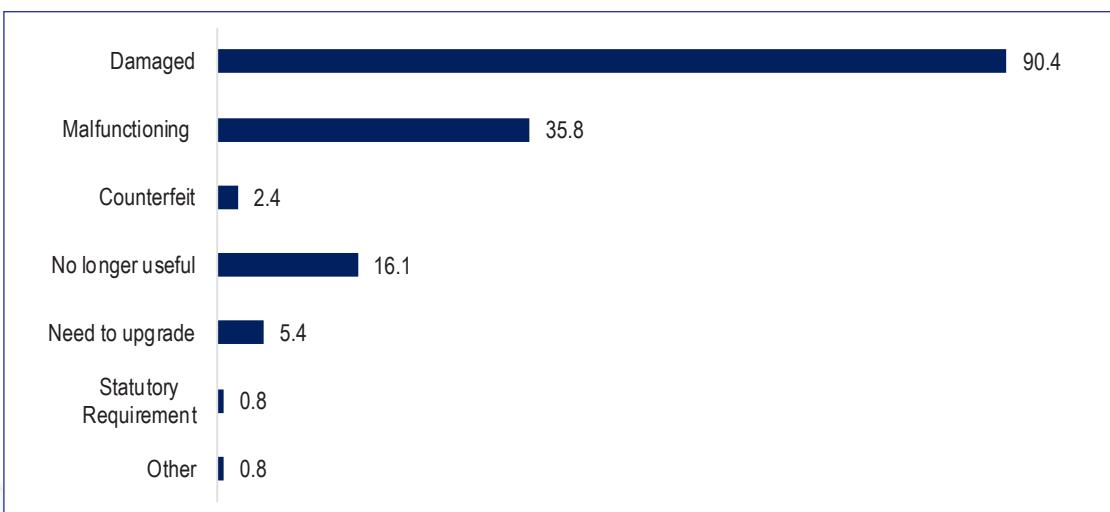
Figure 301: E-waste Disposal by Sex of Household Head; 2022



9.1.2. Reasons for Disposal of Electronic/Electrical Waste

The survey revealed that most households disposed of some electrical/electronic items because they either malfunctioned or were damaged. Survey results showed that 90.4 percent of households disposed of electrical/electronic items that were damaged while 35.8 percent disposed of electrical/electronic items because they had malfunctioned. However, other household disposed of electrical/electronic items because the household upgraded the items or were no longer useful due to obsoleteness. A small proportion of households, about 0.8 percent, had disposed of an electrical or electronic item due to changes in statutory requirements such as broadcast migration from analogue to digital Television or phasing out of CFC fridges.

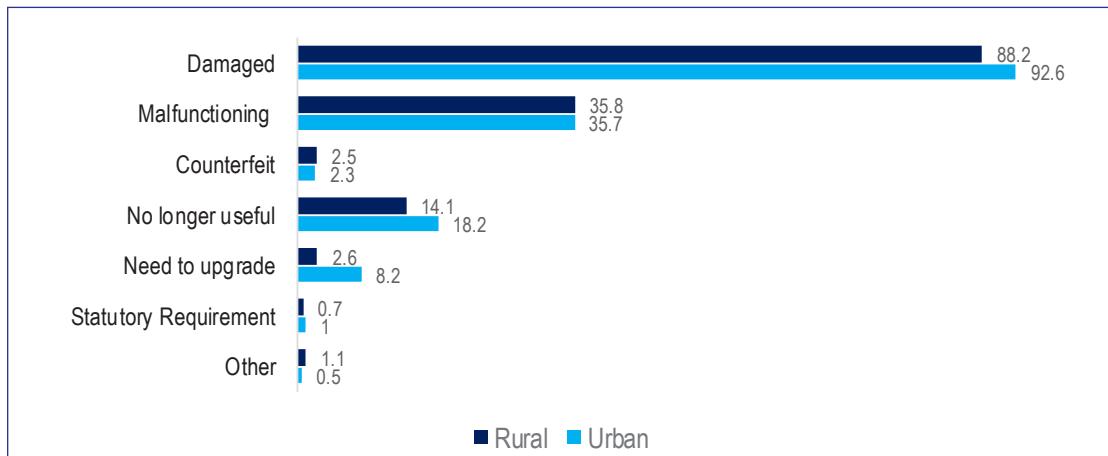
Figure 302: Reasons for Disposal of Electrical/Electronic Items; 2022



There were limited differences in the reasons for electrical/electronic items disposal by households in urban areas and those in rural areas. However, a relatively greater proportion of households in urban areas reported that they had disposed of electrical/electronic items because they were damaged, no longer useful, needed an upgrade or

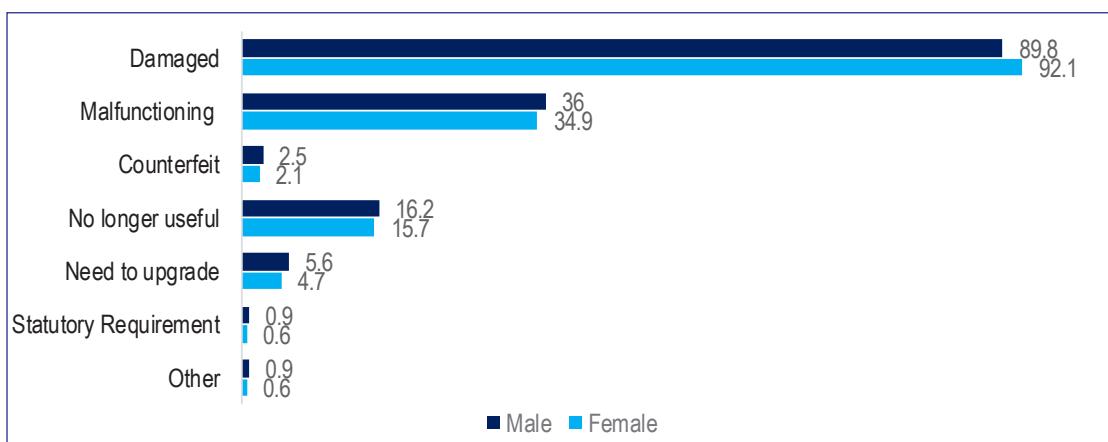
due to statutory requirements. On the other hand, a bigger proportion of households in rural areas reported that they had disposed of similar items due to malfunctioning and counterfeit items.

Figure 303: Reasons for Disposal of Electrical/Electronic Items by Region: 2022



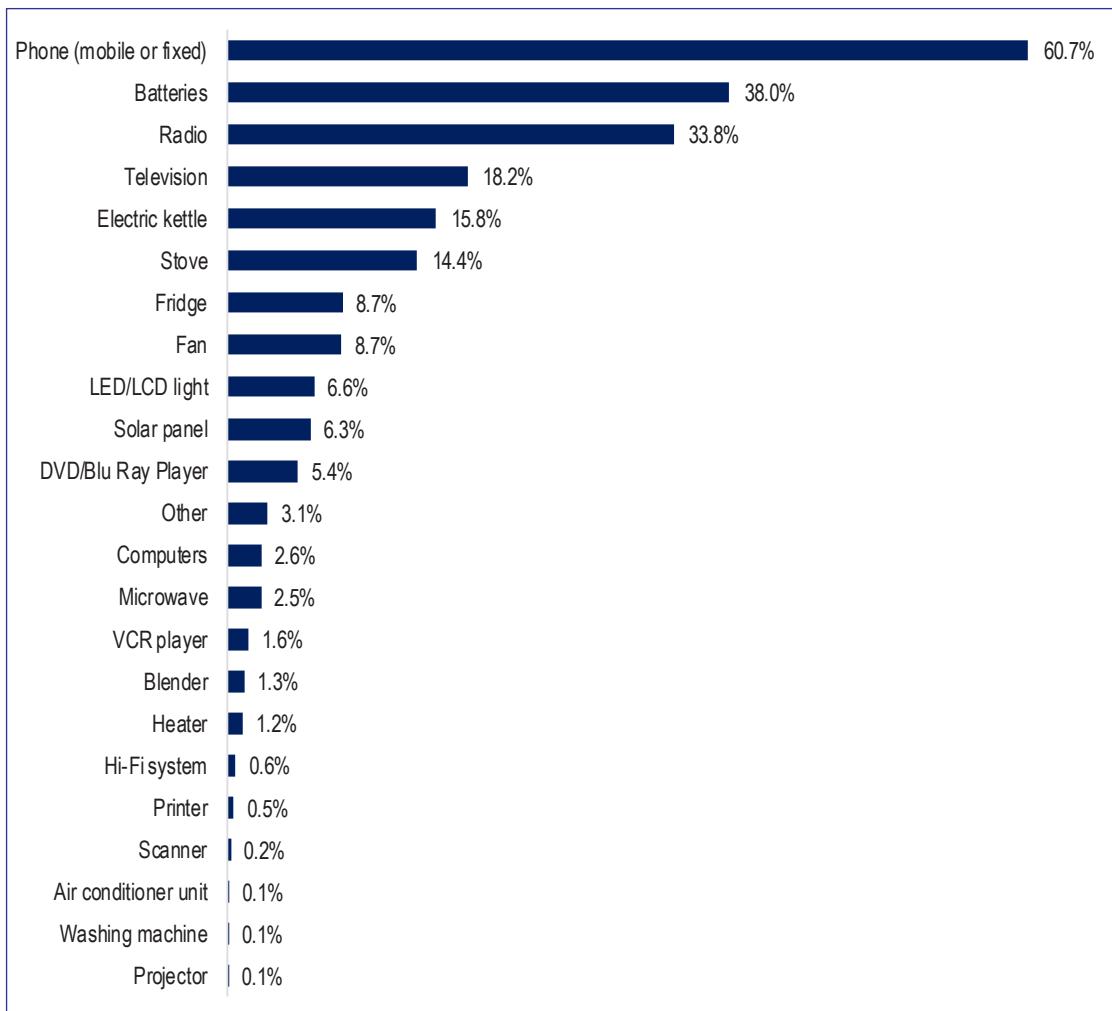
With regards to household headship, it was established that a greater proportion of male-headed households disposed of electrical/electronic items because they had malfunctioned, were counterfeit, no longer useful, needed an upgrade or were as a result of statutory requirements. Female-headed households, on the other hand, were observed to have mostly disposed of electrical/electronic items due damage.

Figure 304: Reasons for Disposal of Electrical/Electronic Items by Sex of Household Head; 2022



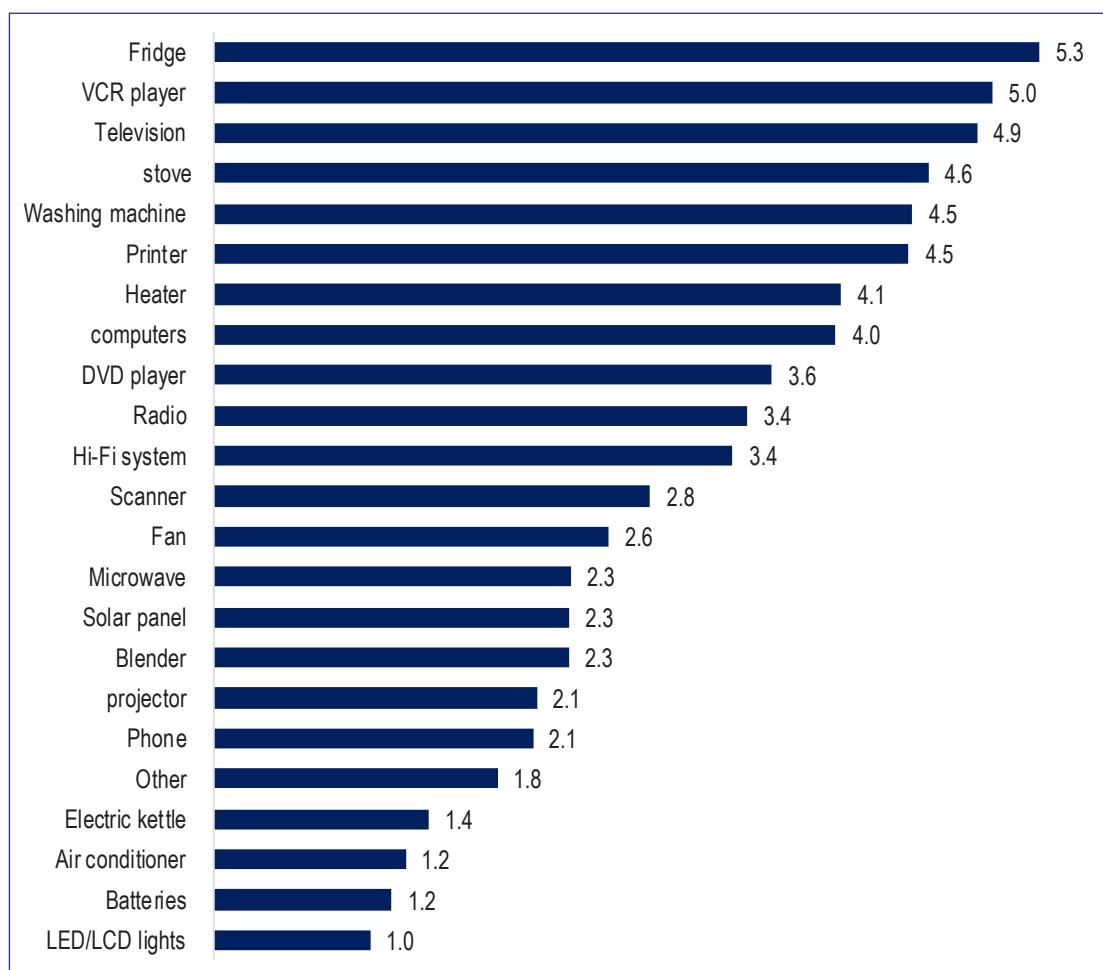
9.1.3. Stock of Electronic/Electrical Items Disposed by Households

The survey established that phones (mobile or fixed) are among the most commonly disposed electrical/electronic items by households. Specifically, 60.7 percent of all the households across the country that had disposed of e-waste indicated that they had disposed of a phone (mobile or fixed). On the other hand, only 2.6 percent of all the households across the country that had disposed of an electronic/electrical item reported ever disposing of a computer. The least disposed of items among households were projectors that accounted for 0.1 percent of all households.

Figure 305: E-waste Disposal by Type; 2022

It was estimated that on average, households used mobile phones for at least two (2) years before disposal. Notably, a fridge had the longest average period of use in a household before it was disposed of estimated at 5.3 years while a VCR player was used for an average of 5 years. The survey further estimated that on average, households used a computer for 4 years before it was disposed of.

Figure 306: Average Number of Years of Usage of Electronic/Electrical Items before Disposal; 2022

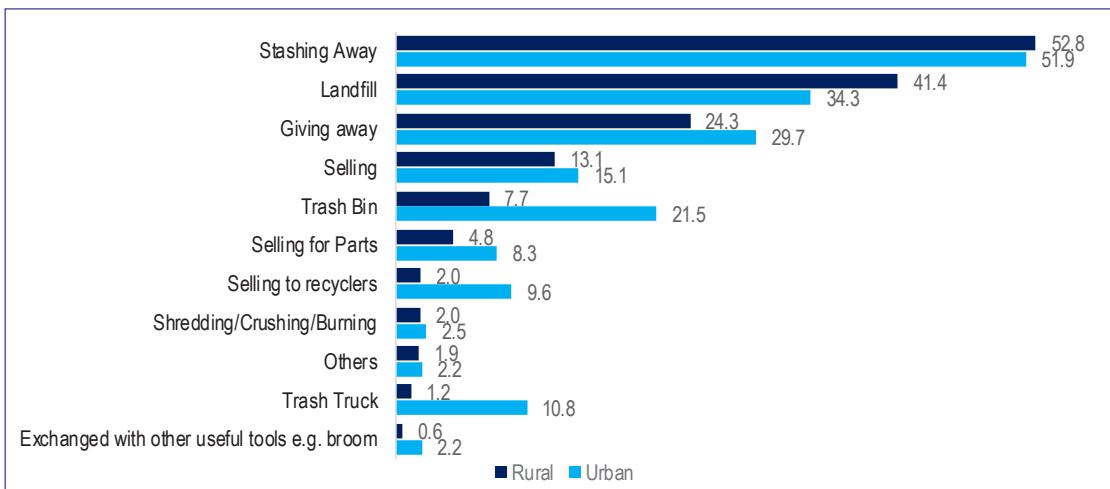


9.1.4. Modes of Disposal of Electronic/Electrical Waste

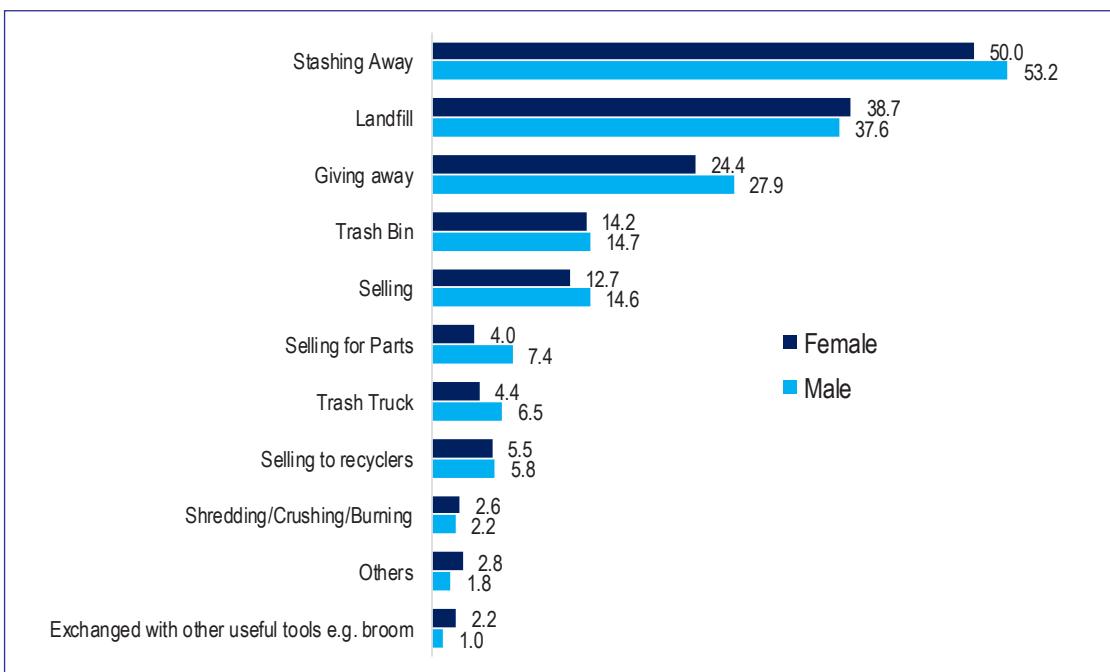
The survey revealed that most households stashed away electrical/electronic items as a way of disposal. Specifically, 52.4 percent of households reportedly disposed of some electrical/electronic items by stashing them away while 37.9 percent of them disposed of e-waste by jettisoning at landfill. Of the various modes of disposing of electrical/electronic items, exchanging electrical/electronic items for other useful tools such as brooms was observed to be the least adopted modes among households that had disposed of e-wastes.

Figure 307: Modes of Electronic/Electrical Waste Disposal: 2022



Figure 308: Modes of Electronic and Electrical Items Disposal by Region; 2022

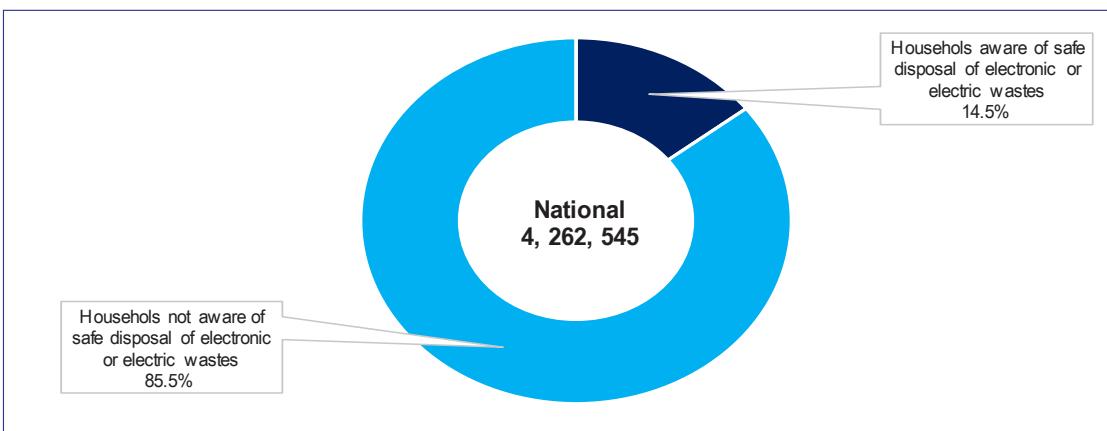
With regards to the sex of the household head, it was observed that there was a slightly larger proportion of male headed households that used stashing, giving away, selling for parts, cash or to a recycler and throwing in a trash truck or trash bin than the proportion of female headed households. On the other hand, female headed households were more likely to dispose of electrical/electronic item by shredding/crushing/burning, exchanging with other useful products such as brooms or throwing in a landfill than male headed households.

Figure 309: Modes of Disposal for Electrical/electronic Items by Sex of Household Head; 2022

9.1.5. Awareness on Safe Disposal Methods of Electrical/electronic Waste

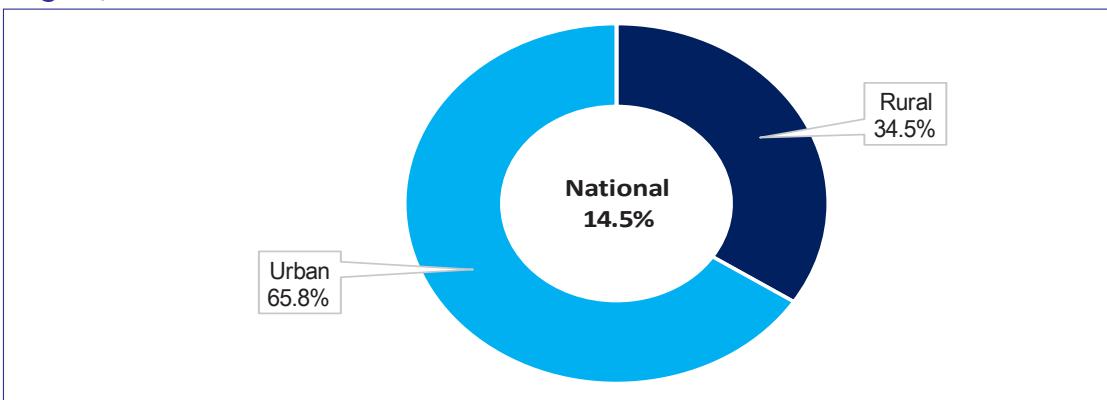
An analysis of the awareness of safe disposal methods for e-waste amongst households showed that the majority of households nationwide were not aware of any safe disposal measures for e-waste. Specifically, 85.5 percent of the total households reported that they were not aware of any safe methods for disposal of e-waste while 14.5 percent reported in the affirmative.

Figure 310: Awareness of Safe Disposal Methods for Electrical and Electronic Waste; 2022



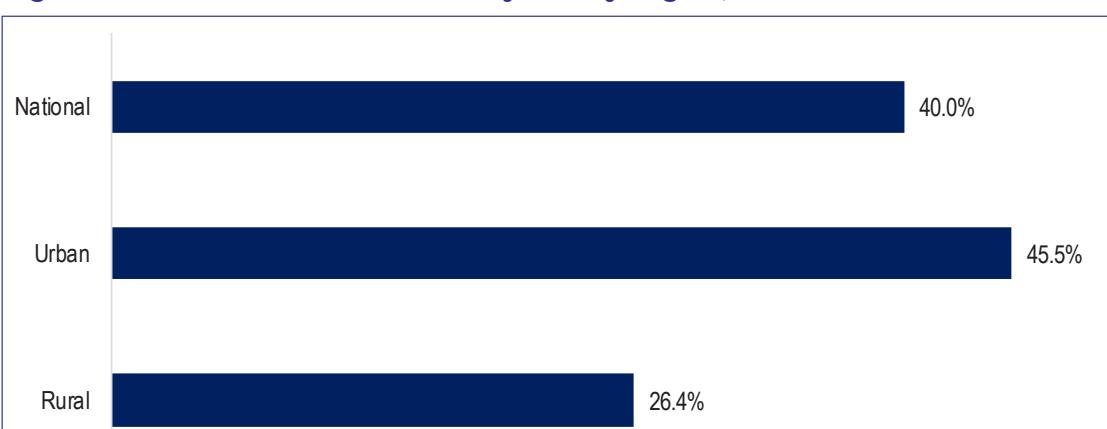
Awareness of safe disposal methods for e-waste was more prevalent in urban areas than in rural areas. Notably, 65.8 percent of households that were aware of any safe e-waste disposal methods were domiciled in urban areas while 34.5 percent of these households were in rural areas.

Figure 311: Awareness of Safe Disposal Methods for Electrical/electronic Waste by Region; 2022



Of the households that were aware of safe disposal methods for electronic and electrical waste, 40 percent indicated that they were aware of e-waste collectors and/or recyclers. It was observed that there were more households in urban areas that were aware of e-waste collectors and/or recyclers than in rural areas. Specifically, 45.5 percent of households within urban areas indicated that they were aware of some e-waste collectors or recyclers while 26.4 percent of households within rural areas indicated that they were aware.

Figure 312: Awareness of E-waste Recyclers by Region; 2022

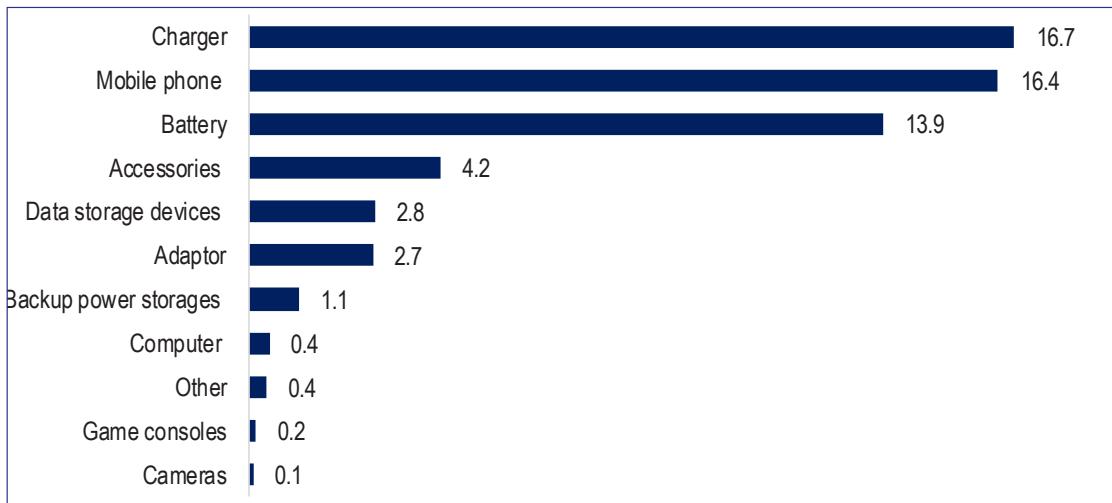


9.2. Electronic/Electrical Waste Management by Individuals

9.2.1. Disposal of Electronic/Electrical items

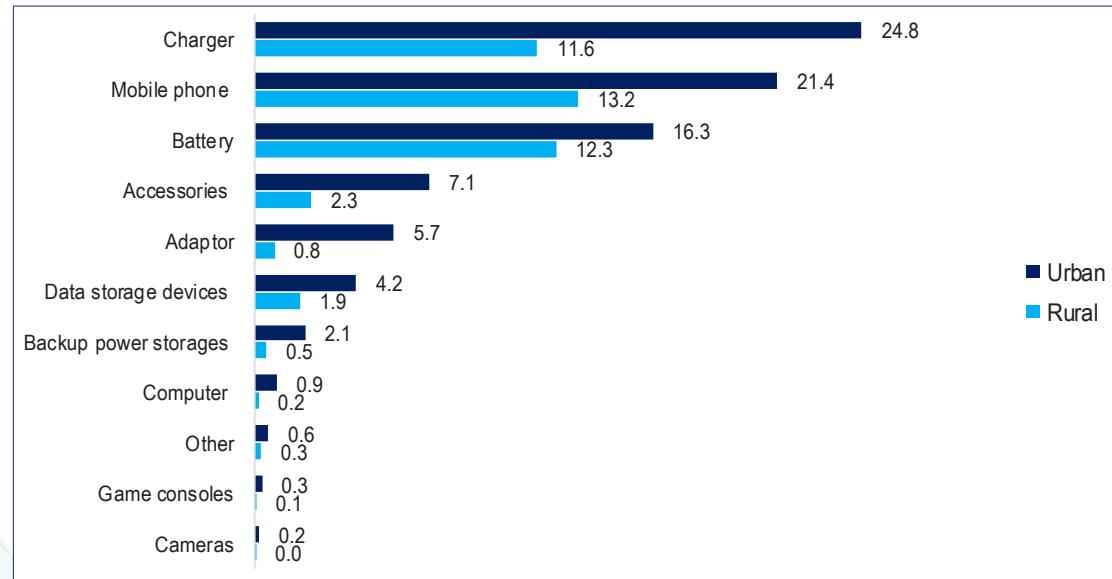
The analysis of survey results from individuals aged 10 years and older showed that 16.7 percent had disposed of chargers while 16.4 percent they had disposed of mobile phones. Further, 13.9 percent of individuals reported that they had disposed of batteries while only 4.2 percent had disposed of accessories such as headsets, data cables, power packs and mouse. Overall, it was established that chargers were the most disposed of electronic item among individuals followed by mobile phones and batteries.

Figure 312: Disposal of Electrical/electronic Items by Type 2022

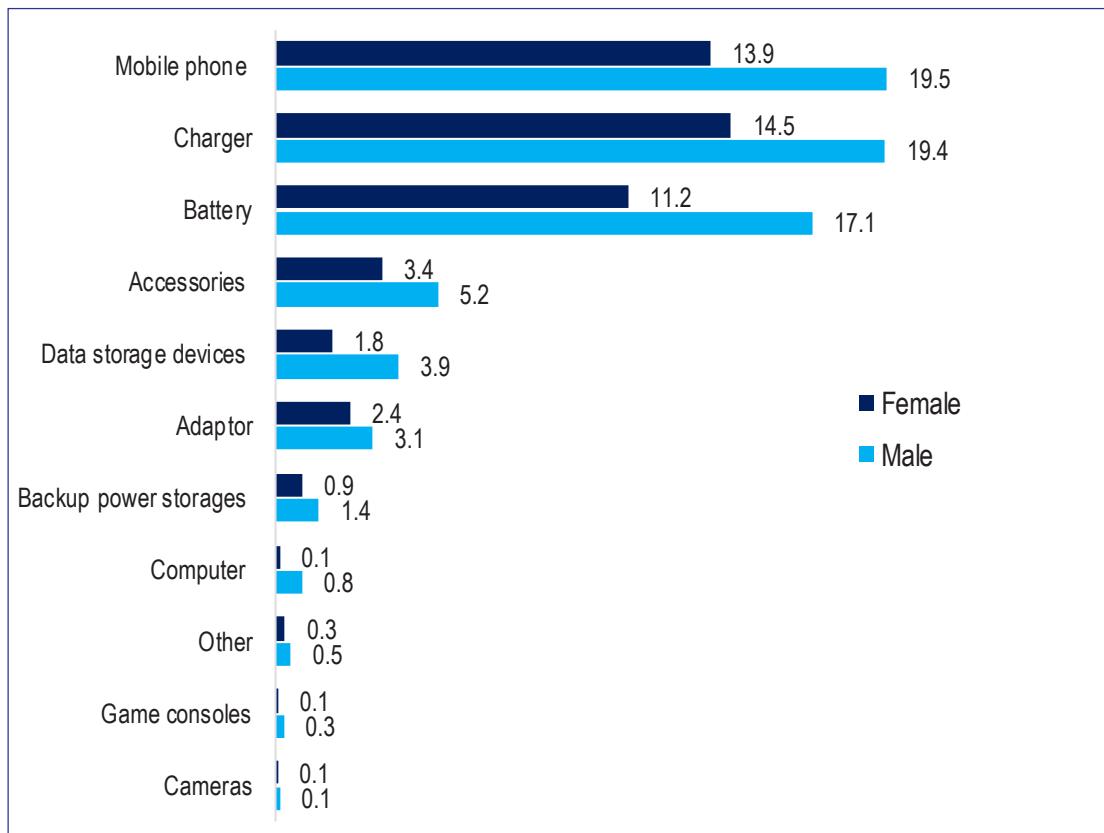


By region, the disposal of electrical/electronic items among individuals was quite high in urban areas than in rural areas. Survey results shows that there were more individuals in urban areas than in rural areas that reportedly disposed of all types of electrical/electronic items investigated in the survey (Figure 291).

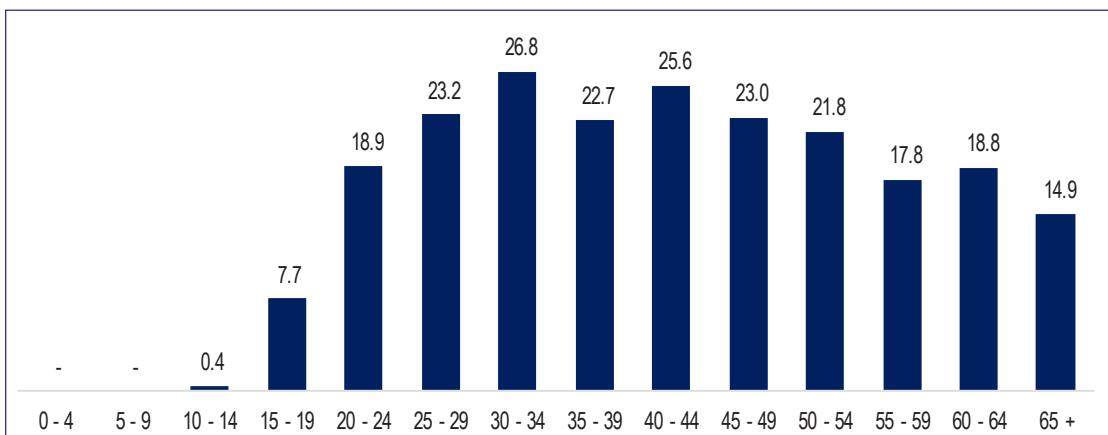
Figure 313: Disposal of Electrical/electronic Items by Region; 2022



An analysis of the e-waste disposal patterns by sex showed that disposal of e-wastes is quite high among males than females. Notably, a substantially higher proportion of males than females had disposed of all electrical/electronic items that were investigated in the survey (Figure 292).

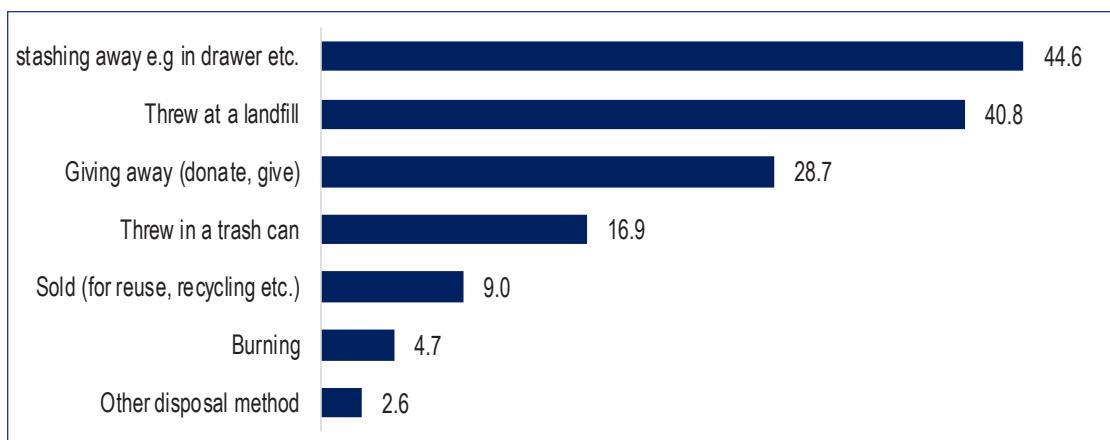
Figure 314: Disposal of Electronic and Electrical Items by Sex; 2022

A review of the electronic-waste by age showed that disposal of electrical/electronic items was quite among individuals in 25 years and older age groups.

Figure 315: Disposal of Electrical/electronic Items by Age-group; 2022

9.2.2. Methods of Disposal for Electronic and Electrical Items

The most common method of disposal for electrical/electronic waste among individuals was stashing away of items as well as throwing in a landfill and constituted 44.6 percent and 40.3 percent of individuals respectively. Furthermore, 28.7 percent of individuals that had electrical/electronic waste had disposed the items by giving them away while 16.9 percent reported disposing of by throwing in trash can.

Figure 316: Methods of e-waste Disposal Amongst Individuals; 2022

9.2.3. Awareness of the Dangers Associated with Unsafe Disposal of e-waste

The survey indicated that 9.3 percent of individuals had knowledge about the risks associated with improper disposal of electrical/electronic waste. By region, the level of awareness of these risks was significantly higher in urban areas than in rural areas. Specifically, among urban individuals 16.2 percent were aware of the risks associated with e-waste but only 5.0 percent of among rural individuals were aware of the dangers of e-waste, indicating a regional disparity of 11.2 percent points.

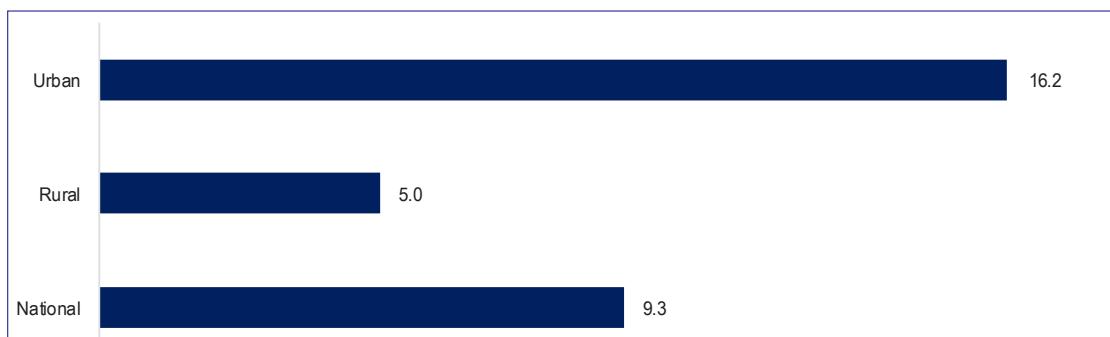
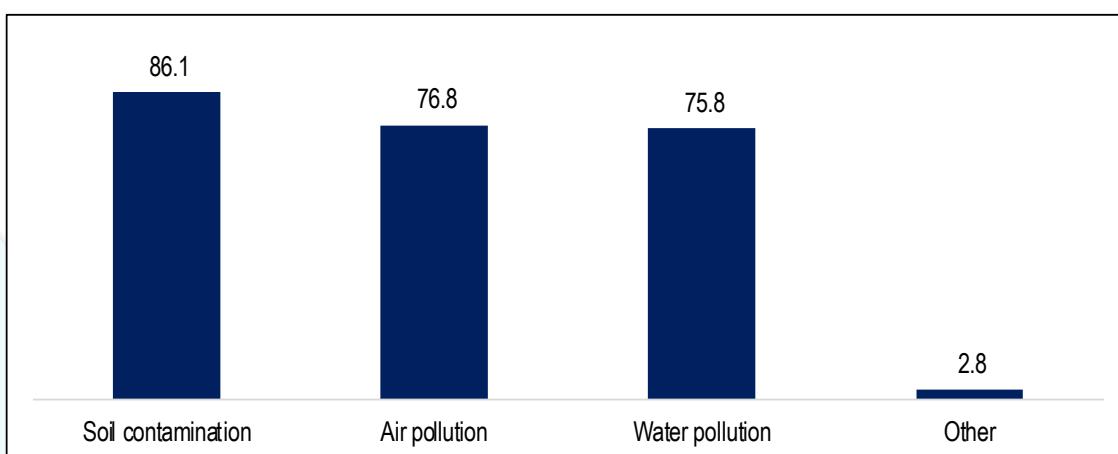
Figure 317: Awareness of the Dangers of Unsafe Disposal of Electronic Waste; 2022

Figure 296 shows individual level analysis of the risks associated with unsafe disposal of electrical/electronic wastes. Results showed that most individuals were aware that unsafe disposal of e-wastes poses serious risks to the environment such as soil contamination, air pollution, water pollution etc.

Figure 318: Individuals' Awareness of Types of Dangers Associated with e-waste; 2022



CHAPTER
10

CONCLUSIONS AND RECOMMENDATIONS

10. CONCLUSIONS AND RECOMMENDATIONS

The 2022 National Survey on Access and Usage of ICTs was aimed at measuring progress in the uptake of ICT products and services across the country. This follows prior assessments undertaken in 2013, 2015 and subsequently 2018 with a significant proportion of the survey having similar scope. The survey investigated various attributes relating to adoption, diversity in use, quality of experiences, barriers to access, affordability and electronic waste. For the first time, the 2022 survey considered aspects related to electronic services as well as postal and courier services among households and individuals and provided a more extensive assessment to aspects relating to Digital Financial Services. The survey maintained its national scope and provided regional and provincial estimates on all the aspects evaluated. The estimates were generated based on the most recent 2022 Census Frame. The key findings from the survey are outlined below:

a) **Access to Electricity by Households**

A key feature of the survey was the investigation of households that had access to electricity which has possible causal influence on uptake of ICTs. Only 34.1 percent of the total number of households across the country had access to power from a utility entity. This reflects less extensive connections in the country and could negatively affect the extent of uptake of ICT services.

b) **Access and Usage of Television and Radio Broadcasting Services**

The proportion of households that owned a working television set across the whole country was 36.4 percent while only 8.7 percent of households owned a working smart television. The ownership of working radios by households continued to decline in 2022 consistent with the findings in earlier surveys. The proportion of households across the country that owned a working radio reduced from 40.0 percent in 2018 to 35.0 percent in 2022. ZNBC television stations remained the most widely accessed local television stations by households that own working television sets in Zambia. Similarly, the majority of households in the country that owned working radios indicated that they accessed public radio stations compared to the proportion of households that accessed community radio stations and commercial radio stations. Further, only 49.1 percent of households that owned working radios reported that they accessed international radio stations.

c) **Ownership of Computers by Households**

There was a marginal improvement in the ownership of computers by households. The proportion of households across the country that indicated that they owned a computer increased from 8.1 percent to 9.5 percent between 2018 and 2022 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 as 18.9 percent of the households in urban areas owned a computer while only 2.6 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 17.7 percent reported in 2018 to 33.4 percent in 2022. The majority of households with access to internet services remained in urban areas as opposed to rural areas accounting for 59.0 percent while the proportion of households in rural areas were 14.6 percent. The main type

of technology adopted by households as their main source of internet services was reported to be mobile broadband network via handset accounting for 82.3 percent of the total number of households that access internet services. FTTH accounted for less than 1.0 percent of households indicated that the technologies were their main source of internet services. Most households reported that they were satisfied with various aspects of quality of experience with regards to their internet services with the exception of accuracy in billing. Significant improvement was observed with regards to complaint resolution where 83.1 percent of households were satisfied with this aspect relative to 57.3 percent of households that were satisfied in 2018. However, the proportion of households that were satisfied with the other aspects of the quality of internet service such as provision of service information and accuracy in billing decreased in 2022 from the proportion of households observed in 2018. Majority of households that did not have access to the internet at home attributed this to the perceived high cost of equipment used to access the internet. Aside from equipment costs, households attributed the absence of internet access at home to lack of confidence, knowledge and skills to use the internet, lack of usefulness of the internet and the high cost of internet services.

e) **ICT skills among Individuals**

It was observed that 11.5 percent of individuals above the age of 10 years in the country had the ability to use a desktop computer in 2022 relative to 6.8 percent recorded in 2018 signifying a 3.2 percentage point increase. Most individuals were noted to have the ability to use a smartphone, representing 27.3 of the population. A review of the ICT skills amongst individuals that have used an ICT device revealed that at least 54.0 percent are able to copy or move a file or folder, a skill that is considered a basic digital skill. A much lower proportion of this population, about 9.0 percent, had advanced digital skills such as writing a computer program using a specialised language. It was further observed that the proportion of individuals that were actively using these ICT skills declined with complexity of the tasks.

f) **Ownership and Usage of Mobile phones**

The proportion of individuals aged 10 years and older that had used a mobile cellular telephone in the 3 months prior to the data collection period was 63.3 percent. This presented an increment of 9.8 percentage points from the proportion of active mobile cellular phone users recorded in 2018. Mobile cellular telephone ownership by individuals aged 10 years and older was 51.8 percent of individuals reflecting a 7.2 percentage point increment from the mobile ownership rate recorded in 2018. Among the total number of individuals aged 10 years and older that owned mobile phones, 35.8 percent were noted to have smartphones. This represented a 6.2 percentage point increase in the proportion of individuals with mobile phones that owned smartphones from 29.6 percent recorded in 2018. The survey analysed the main challenges that individuals using mobile cellular phones had experienced in the course of making voice calls. The most common challenge experienced by mobile cellular users was poor voice clarity encountered by 56.3 percent of all mobile cellular users. The proportion of mobile cellular users that experienced unsatisfactory handling of complaints by the service provider accounted for the least share of complaints.

g) **Access to Internet Services by Individuals**

The survey established that 25.2 percent of individuals aged 10 years and older had used the internet before translating into a 10.9 percentage point increase from the proportion of individuals that had used the internet in 2018. The survey revealed that most individuals that had not used the internet attributed this to not having learnt how to use the internet as well as the lack of a device for accessing the internet. A

review of the quality of internet services experienced by internet users showed that most users felt that all the internet service parameters comprising internet speed, reliability of internet service, accuracy in billing, complaint resolution, customer service and provision of information were good. On the other hand, accuracy in billing was rated as poor or fair by more than 30.0 percent of internet users. The dominant use of mobile broadband via a mobile cellular telephone as a means of accessing the internet was retained in 2022 as in 2018 and 2015

h)

Online Risks and Mitigation by Households and Individuals

The survey estimated that 53.5 percent of the households at national level with access to internet services indicated that they were aware of risks associated with the internet. The survey further indicated that 36.5 percent of households that were aware of risks associated with the internet used a tool or strategy to mitigate the risks of household members' exposure to illicit content accessible online. Consequently, despite being aware of online risks, majority of households using the internet do not use any tools or strategies to mitigate against risks associated with the use of internet platforms. At individual level, the survey estimated the proportion of internet users aged 10 years and older that were aware of the risks associated with online activities at 44.3 percent in 2022 which was comparatively less than 52.9 percent recorded in 2018. Of the internet users aged 10 years and older that were reported to have encountered online risks, the biggest proportion were observed to have been victims of fake news and scams.

i)

Access and Usage of Digital Financial Services by Households and Individuals

The survey revealed that at least 73.1 percent of all the households across the country had used DFS before reflecting a positive improvement from 48.9 percent reported in 2018. The survey established that about 47.6 percent of individuals aged 10 years and older in the country had transacted before using mobile money accounts. It was further observed that bank accounts and e-wallets accounted for 9.3 percent and 2.6 percent of individuals aged 10 years and older that had used the services before. The survey showed that most individuals aged 10 years and older that had not used DFS attributed this to the lack of resources and not having registered for any DFS. Other significant hindrances to the adoption of DFS included the lack of knowledge on the services and preference to transact with cash. The most common challenges experienced by those that had encountered challenges on DFS platforms were noted to be insufficient float, scams and system failures.

j)

Usage of Electronic Services

The survey showed that 25.8 percent of households across the country had used the Government Services Bus (GSB) also known as the ZamPortal prior to the survey. The most widely used GSB services by households were those offered by Zambia Police Service (ZP) and Road Traffic and Safety agency (RTSA). It was estimated that 11.5 percent of Internet users had engaged in e-commerce before. The survey revealed that the prevalence of challenges faced by users of e-commerce was mostly related to delayed delivery of goods and/or services.

k)

Postal and Courier Services

The survey established that 32.4 percent of the population had used courier services at least once prior to the survey compared to 17.3 percent of the population that had used postal services at least once prior to the survey. The courier services provided by bus companies and unregistered courier vehicles were the modes used widely by individuals who had used courier services. The delay of parcels was the most common

challenge faced by individuals who had used the postal and courier services before.

i) **Electrical or Electronic Waste management**

The survey revealed that 44.5 percent of households across the country had disposed some electronic or electrical items which were damaged or were no longer useful to the households. The survey further revealed that phones (mobile or fixed) were among the most commonly disposed of electronic items by households. It was established that most households disposed of their electrical/electronic items by stashing them away, throwing in a landfill or in a trash bin.

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 to households by utility companies if increased adoption of ICTs is to persist. Greater focus should be on rural areas where access to electricity from the utility companies was modest.
- ii. Deliberate interventions aimed at increasing the uptake of computers in the country will be necessary as the extent of ownership of computers among households remains very low. For instance, fiscal incentives aimed at either the importation of computers or the assembly of computers could provide a more affordable avenue for accessing the devices.
- iii. Internet penetration remained relatively low in the country despite some marginal progress noted. The smartphone penetration equally remained very low in spite of the observed improvement between 2018 and 2022. The cost of devices was noted as a key barrier to adoption of internet services coupled with relevance of the services. The Government should explore avenues for reducing the cost of smartphones which would include tax exemptions as well as consideration on scope for local assembly. Operators could also consider adopting tailor made products that assist with enhancing device ownership.
- iv. Online risks continue to pose a major threat to adoption of ICTs. The Authority should continue with efforts on awareness of online risks. Efforts should extend to unpacking the diversity and changing complexity of the observed risks. There is also a need to tailor the nature of the awareness efforts across different demographic groups such as children, women and rural populace given the diverse incidence of the awareness.
- v. ICT skills remained nascent with the majority of the populace not possessing basic ICT skills with the proportion declining with progression in the complexity of ICT 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.
- vi. Quality of experience among users of ICTs deteriorated between 2018 and 2022 in most of the attributes evaluated. The providers of services must consider addressing such challenges such as network availability, quality of voice call clarity, internet speeds, dropped call rates, complaint resolution and accuracy in billing. Accuracy in billing was a significant attribute that was most poorly rated by users. The Authority should consider enhancing its oversight on billing and seek redress for the observed adverse experience.
- vii. Efforts to extend financial inclusion through increased uptake of DFS will need to be sustained. 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. There is also need to enhance awareness on mitigation of challenges related to risks associated with DFS such as scams. Further, efforts to enhance digital literacy should be targeted towards the rural populations and the Persons with Disabilities (PWDs) so as to address the disparities in financial inclusion. On the supply side, operators should explore avenues of strengthening the liquidity and capacity of Agents that struggled with adequacy of their float.
- viii. The Zambia Environmental Management Agency (ZEMA) working with other stakeholders must enhance its awareness efforts to sensitize the public on the dangers of electronic waste as well as facilitate for the availability of alternative options for safer disposal of electronic and electrical waste. The increased accumulation of electronic and electrical waste from mobile cellular phones, 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.
- ix. The survey established that there still exists a gender divide in access and usage of ICTs in the country though with some marginal improvements. Notably, there were more males that had used a mobile phone than females. Similarly, the proportion of males that had used the internet before was higher than females. Efforts to close the gender divide in access and usage of ICT services will need to be enhanced with a view of providing equal opportunities for both males and females.
- x. The survey indicated that there are significant regional differences in access and usage of ICTs related to provinces and rural urban comparisons. These differences could be linked to both the socio economic status of people that live in these areas as well as commercial strategies by operators to drive access in areas that are more commercially viable. There is need to enhance universal access efforts in areas that are underserved as well as develop tailor made products and services that would stimulate uptake in such areas. Consideration could be made to enhance the availability of entry level products and services that would appeal to such communities.
- xi. Adoption of both postal and courier services remained nascent in the country. There were also observed challenges in efficient delivery of parcels. The Authority could consider enhancing efforts aimed at stimulating the availability of postal and courier service points as well as raising awareness on the benefits associated the subsector.



ANNEXURE

1

HOUSEHOLD QUESTIONNAIRE



ZAMBIA INFORMATION AND COMMUNICATIONS TECHNOLOGY AUTHORITY



ANNEXURE 1: HOUSEHOLD AND INDIVIDUAL LEVEL QUESTIONNAIRE

HOUSEHOLD QUESTIONNAIRE

IDENTIFICATION PARTICULARS	CODE
1. PROVINCE NAME:	<input type="text"/> <input type="text"/>
2. DISTRICT NAME:	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
3. CONSTITUENCY NAME:	<input type="text"/> <input type="text"/> <input type="text"/>
4. WARD NAME:	<input type="text"/> <input type="text"/>
5. REGION (Rural = 1, Urban = 2)	<input type="text"/>
6. CSA NUMBER:	<input type="text"/> <input type="text"/>
7. EA NUMBER:	<input type="text"/>
8. CLUSTER NUMBER:	<input type="text"/> <input type="text"/> <input type="text"/>
9. HOUSEHOLD SERIAL NUMBER	<input type="text"/> <input type="text"/> <input type="text"/>
10. LOCALITY OR VILLAGE NAME:	
11. NAME OF THE HOUSEHOLD HEAD:	
12. NAME OF THE MAIN RESPONDENT (If different from the head):	

HOUSEHOLD ROSTER

SERIAL NUMBER OF HOUSEHOLD MEMBERS	USUAL MEMBER S	SEX	RELATIONSHIP TO HEAD OF HOUSEHOLD	AGE	DISABILITY STATUS	DISABILITY TYPE	MARITAL STATUS
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.	Is (NAME) Male or female? 1. MALE 2. FEMALE	What is the relationship of (NAME) to the Head of the household? SEE CODES BELOW 1. Head 2. Spouse 3. Own son/daughter 4. Step son/daughter 5. Son/Daughter in-law 6. Brother/Sister 7. Brother/Sister in-law 8. Cousin 9. Nephew/Niece 10. Grandson/daughter 11. Parent 12. Parent in-law 13. Aunt/Uncle 14. Grand parent 15. Other relatives 16. Not related	How old was (NAME) at his/her last birthday? <i>(In complete d years)</i> ENTER 00 IF LESS THAN ONE YEAR	Does (NAME) have any disability? Y/N NO, SKIP TO HR 7.	State if (NAME) has the following characteristics?	1. Total Vision impairment 2. Partially sighted 3. Total hearing impairment 4. Total speech impairment 5. Partial speech impairment 6. Hard of hearing 7. Mental illness 8. Intellectual disability 9. Physically disabled	What is (NAME)'s marital status? 1. Never married 2. Polygamous married 3. Monogamous married 4. Separated 5. Divorced 6. Widowed 7. Cohabiting
	HR 1.	HR 2.	HR 3.	HR 4.	HR 5.	HR 6.	HR 7.

RESPONDENT BACKGROUND (for persons aged 10 years and older)

	RB 1.	RB 2.	RB 3.	RB 4.
SERIAL NUMBER OF HOUSEHOLD MEMBERS (PID)	<p>Have you ever attended school?</p> <p>Y/N</p> <p>NO, GO TO RB-3</p>	<p>What is the highest level of education attained?</p> <p>1. Grade 1 2. Grade 2 3. Grade 3 4. Grade 4 5. Grade 5 6. Grade 6 7. Grade 7 8. Grade 8 9. Grade 9 10. Grade 10 11. Grade 11 12. Grade 12 (GCE (O)) 13. Grade 12 GCE (A) 14. Certificate 15. Diploma 16. Bachelor's Degree 17. Master's Degree 18. Doctor of Philosophy (PhD) and above</p> <p>Note: 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.</p>	<p>Are you able to read and write in any language?</p> <p>Y/N</p>	<p>What is your main employment status?</p> <p>1. Employed 2. Unemployed 3. Self-employed 4. Employer 5. Retired</p>

#	HOUSEHOLD INCOME (for household head ONLY)	
HH-	What is household monthly income from all sources?	ZMW

#	HOUSEHOLD ICT USAGE SECTION		OPTIONS AND SKIP REFERENCES	
Q-1.	What form(s) of energy does the household use?	1. Utility power service	Y/N	IF YES TO TWO OR MORE RESPONSES IN 1-4 GO TO Q-2 OTHERWISE GO TO Q-3
		2. Solar	Y/N	
		3. Generator (Gensets)	Y/N	
		4. Battery	Y/N	
		5. Fire wood	Y/N	
		6. Charcoal	Y/N	
		7. Gas	Y/N	
		8. Coal	Y/N	
		9. Other specify	Y/N	
Q-2.	What is the main electric energy used by the household?	1. Utility power service 2. Solar 3. Generator (Gensets) 4. Battery 5. Other specify		

Q-3.	Does this household or any member of this household have a working Television set (TV)?	Y/N	NO, GO TO Q-5
Q-4.	Is your TV a smart TV?	Y/N	
Q-5.	Does this household have access to any TV stations?	Y/N	NO, GO TO Q-12
Q-6.	Which of the following local stations is accessed by the household?	1. ZNBC	Y/N
		2. MUVI	Y/N
		3. Q-TV	Y/N
		4. Prime TV	Y/N
		5. Diamond TV	Y/N
		6. ABN	Y/N
		7. CBC	Y/N
		8. City TV	Y/N
		9. Camnet TV	Y/N
		10. Other local TV stations	Y/N
Q-7.	In your view, how does the household rate the quality of ZNBC TV reception?	1. Good 2. Fair 3. Poor/Bad	
Q-8.	Does this household have access to any of the following Pay-Tv services?	1. DSTV	Y/N
		2. GoTV	Y/N
		3. MUVI TV	Y/N
		4. Topstar	Y/N
		5. Free-to-Air	Y/N
		6. Zuku TV	Y/N
		7. DTH – Direct-to-Home Satellite TV	Y/N
		8. other	Y/N
Q-9.	How much are you paying for Pay-tv services per month?	1. DSTV	
		2. GoTV	
		3. MUVI TV	
		4. Topstar	
		5. Zuku TV	
		6. DTH – Direct-to-Home Satellite TV	
		7. Other online streaming	
Q-10.	Is subscription affordable for Pay-Tv service(s) the household pays for? Consider affordability ONLY for options selected in Q-9	1. DSTV	Y/N
		2. GoTV	Y/N
		3. MUVI TV	Y/N
		4. Topstar	Y/N
		5. Zuku TV	Y/N
		6. DTH – Direct-to-Home Satellite TV	Y/N
		7. Other	Y/N
Q-11.	How much is the household willing to pay per month for Pay-Tv service(s)? (Ask for each option in Q-8)	ZMW <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	
Q-12.	Does this household have access to any streaming service? e.g. Netflix, Airtel TV, Zizwa plus etc.?	Y/N	NO, GO TO Q-14
Q-13.		1. Airtel TV	Y/N

	What kind of TV streaming services have you accessed before?	2. MTN TV 3. Netflix 4. Zizwa Plus 5. DSTV Now 6. Showmax 7. YouTube TV 8. Other specify	Y/N	
Q-14.	Does this household or any member of this household have a working radio?		Y/N	NO, GO TO Q-17
Q-15.	Does the household use the radio to access	A. PUBLIC STATIONS (ZNBC RADIO STATIONS) B. COMMERCIAL RADIO STATIONS (Phoenix, Sky etc.) C. INTERNATIONAL RADIO STATION (e.g. BBC, Channel France etc.) D. COMMUNITY RADIO STATIONS (Mpangwe Radio etc.)	Y/N Y/N Y/N Y/N	
Q-16.	In your view, how does the household rate the quality of radio reception for the following? Associated quality of radio reception ratings with option in Q-15	A. ZNBC RADIO STATIONS B. COMMERCIAL RADIO STATIONS (phoenix, sky etc.) C. INTERNATIONAL RADIO STATION (e.g. BBC, Channel France etc.) D. COMMUNITY RADIO STATIONS	1. Good 2. Fair 3. Poor/Bad 1. Good 2. Fair 3. Poor/Bad 1. Good 2. Fair 3. Poor/Bad 1. Good 2. Fair 3. Poor/Bad	
Q-17.	Does the household or any member of the household have access to radio streaming?		Y/N	
Q-18.	Does this household have a fixed telephone line? Refers to Zamtel landline ONLY because of the technology used.		Y/N	NO, GO TO Q-25
Q-19.	Is the fixed telephone line functional?		Y/N	NO, GO TO Q-25
Q-20.	In your view, how is the quality of fixed telephone services?	1. Good 2. Fair 3. Bad		
Q-21.	How satisfied are you, AS A USER OF FIXED TELEPHONE , with the following ASPECTS of service delivery by your service provider? IF ATTRIBUTE (D) IS NOT APPLICABLE GO TO Q-25	ATTRIBUTES OF SERVICE DELIVERY A. PROVISION OF SERVICE INFORMATION B. CUSTOMER SERVICES C. COMPLAINT RESOLUTION D. ACCURACY IN BILLING E. RELIABILITY OF OVERALL SERVICES	1. Satisfied 2. Not satisfied 3. Not Applicable 1. Satisfied 2. Not satisfied	



			3. Not Applicable	
Q-22.	What is the household monthly expenditure on fixed telephone services?	ZMW	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	
Q-23.	Is fixed telephone service affordable?	Y/N/I don't know	YES OR I DON'T KNOW, GO TO Q-25	
Q-24.	How much is the household willing to pay for fixed telephone services?	ZMW	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	
Q-25.	Does this household or any member of the household have a mobile cellular telephone?	Y/N		
Q-26.	Is there mobile cellular network coverage by any Zambian network service operator within your house?	Y/N	NO, GO TO Q-28	
Q-27.	What kind of mobile cellular network signal is available in the area? <i>(Enumerator to check and deduce from the signal on the tablet the following functionality) {Under mobile phone question in HH questionnaire}</i>	1. 2G - (GPRS, EDGE, GSM, CDMA, TDMA, EGPRS, IMT-SC, HSCSD) 2. 3G - (HSPA, HSPA+, UMTS, IMT-2000, W-CDMA) 3. 4G - (LTE, IMT-A, WiMAX)	IF ANSWERED GO TO Q-29	
Q-28.	How long (in minutes) do you travel to find network coverage? <i>(Standard measure is 1Km is covered in 12 minutes)</i>			
Q-29.	Does this household or any member of this household have a computer?	Y/N		
Q-30.	Does this household or any member of this household have internet access at home, regardless of whether it is used or not?	Y/N	YES, GO TO Q-32	
Q-31.	Why does this household not have Internet access?	A. Do not need the Internet (not useful, not interesting, lacks local content) B. Have access to the Internet elsewhere C. Lack of confidence, knowledge or skills to use the Internet D. Cost of the equipment is too high E. Cost of the internet is too high F. Privacy or security concerns G. Internet service is not available in the area H. Internet service is available but it does not correspond to household needs (e.g. quality, speed) I. Cultural reasons (e.g. exposure to harmful content) J. Other reason, specify	Y/N	IF THIS QUESTION IS ANSWERED, GO TO Q53
Q-32.	What are types of internet access used at home?	1. Analogue modem (dial-up via standard telephone line) 2. ISDN (Integrated Services Digital Network) 3. DSL (Digital Subscriber Line) at advertised download speeds below 256 kbit/s	Y/N	

	4. Other fixed narrowband with an advertised download speed of less than 256 kbit/s 5. DSL (Digital Subscriber Line) at advertised download speeds of at least 256 kbit/s 6. Mobile Narrowband network (2G e.g. GPRS, EDGE) via a handset 7. Cable modem 8. High speed leased lines 9. Fibre-to-the-home/building 10. Powerline 11. Other fixed broadband 12. WiMAX 13. Fixed CDMA 14. Satellite broadband network (via a satellite connection), at advertised download speeds of at least 256 kbit/s 15. Mobile broadband network (at least 3G, e.g. UMTS) via a handset 16. Integrated SIM card in a computer 17. USB Modem 18. GSM Gateway (router and modem combo) – MiFi, Wi-Fi etc. 19. Other mobile broadband network, specify	Y/N
Q-33.	What is the main type of internet access used at home?	1. Analogue modem (dial-up via standard telephone line) 2. ISDN (Integrated Services Digital Network) 3. DSL (Digital Subscriber Line) at advertised download speeds below 256 kbit/s 4. Other fixed narrowband with an advertised download speed of less than 256 kbit/s 5. Mobile Narrowband network (2G e.g. GPRS, EDGE) via a handset 6. DSL (Digital Subscriber Line) at advertised download speeds of at least 256 kbit/s 7. Cable modem 8. High speed leased lines 9. Fibre-to-the-home/building 10. Powerline 11. Other fixed broadband, specify 12. WiMAX 13. Fixed CDMA 14. Satellite broadband network (via a satellite connection), at advertised download speeds of at least 256 kbit/s 15. Mobile broadband network (at least 3G, e.g. UMTS) via a handset 16. Integrated SIM card in a computer 17. USB Modem 18. GSM Gateway (router and modem combo) 19. Other mobile broadband network, specify

		ATTRIBUTES OF SERVICE DELIVERY					
Q-34.	<p>How satisfied are you, AS A USER OF INTERNET, with the following ASPECTS of service delivery by your MAIN Internet service provider?</p> <p>IF OPTION 4 IS NOT APPLICABLE SKIP TO Q-38</p>	1. PROVISION OF SERVICE INFORMATION		1. Satisfied 2. Not satisfied 3. Not Applicable			
		2. CUSTOMER SERVICES		1. Satisfied 2. Neither 3. Not satisfied 4. Not Applicable			
		3. COMPLAINT RESOLUTION		1. Satisfied 2. Neither 3. Not satisfied 4. Not Applicable			
		4. ACCURACY IN BILLING		1. Satisfied 2. Neither 3. Not satisfied 4. Not Applicable			
		5. RELIABILITY OF OVERALL SERVICES		1. Satisfied 2. Neither 3. Not satisfied 4. Not Applicable			
		6. INTERNET SPEED		1. Satisfied 2. Neither 3. Not satisfied 4. Not Applicable			
Q-35.	What is the household monthly expenditure on internet services?	ZMW	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Q-36.	Is internet service affordable for the household?	Y/N/I don't know				YES OR I DON'T KNOW, GO TO Q-38	
Q-37.	How much is the household willing to pay for internet services?	ZMW	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

#	INTERNET/ONLINE RISK MITIGATION SECTION	OPTIONS AND SKIP REFERENCES		
Q-3	Are there any members of the household using the Internet?	Y/N		NO, GO TO Q-53
Q-3	How many members of the household, including children, are using the internet?	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>		
Q-4	How old is the youngest member of the household using the internet?	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>		
Q-4	Are you aware of any risks associated with the internet?	Y/N		NO, GO TO Q-53
Q-4	Do you use any tools/strategies to mitigate the risk of household member's exposure to illicit content on the internet?	Y/N		NO, GO TO Q-44
Q-4	What tools or strategies do you use to mitigate the risk of the household's exposure to illicit content on the internet?	1. Web browser filtering Parental Control tools 2. ISP-level additional content filtering services 3. Family friendly internet filters 4. Search engine filtering 5. Operating system filtering 6. Installing software to filter illicit content 7. Activate history log to monitor visited sites 8. Parental control of internet access and usage 9. Other specify..... 		IF ANSWERED, GO TO Q-45



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#	INTERNET/ONLINE RISK MITIGATION SECTION	OPTIONS AND SKIP REFERENCES	
Q-4	What is the main reason for not using any tools to mitigate exposure of the household to online/internet risks?	1. Do not know of any tools 2. Don't view illicit content as a serious danger 3. The tools I tried are not effective 4. members of my household are responsible enough 5. Do not have the time 6. Not aware of any risks online 7. Other specify	
Q-4	Have you agreed on rules about using the internet with household members?	Y/N	NO, GO TO Q-49

Q-46.	Do you have rules in this household regarding the following?	1. Sharing passwords	Y/N	
		2. Age inappropriate products and/or services	Y/N	
		3. Cyber bullying	Y/N	
		4. Pornography	Y/N	
		5. Posting photographs	Y/N	
		6. Sharing personal information e.g. name, phone number, address etc.	Y/N	
		7. Sexting	Y/N	
		8. Physical meeting with people met online	Y/N	
		9. Device usage time e.g. allow usage of phone by household on weekends only		
		10. Other specify	Y/N	
Q-47.	Do you have a good understanding of activities household members do while on the internet/online?	Y/N		YES, GO TO Q-49
Q-48.	What is the reason for not having good understanding of how household members spend their time online?			
Q-49.	Do you educate household members on the risks associated with internet/online environment?	Y/N		NO, GO TO Q-51
Q-50.	Does the education include the following?	1. Sharing passwords	Y/N	
		2. Age inappropriate products/services	Y/N	
		3. Cyber bullying	Y/N	
		4. Pornography	Y/N	
		5. Sexting	Y/N	
		6. Posting photographs	Y/N	
		7. Sharing personal information e.g. name, phone number, address etc.	Y/N	
		8. Physical meeting with people met online	Y/N	
		9. Reporting child sexual material		
		10. Other specify	Y/N	
Q-51.	Do household members communicate among themselves, including you, about their experiences on the internet/online environment?	Y/N		YES, GO TO Q-53

Q-52.	State the reason why there is no communication among household members on their internet/online environment experiences?	
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#	DIGITAL FINANCIAL SERVICE SECTION	OPTIONS AND SKIP REFERENCES	
Q-53	Does the household use any digital financial service like MTN money, Airtel money, Zamtel Kwacha, Mukuru, Cash Plus, Zanaco Bill Master, e-wallet etc?	Y/N	NO, GO TO Q-59
Q-54	What does the household use digital financial services for?	1. Paying utility bills e.g. electricity, pay TV, water etc. 2. Paying for talk-time 3. Pay school fees 4. Sending money 5. Receiving money 6. Bank to mobile transactions and vice versa 7. Savings 8. Loans 9. Foreign Remittance (sending and receiving) 10. Insurance 11. Betting services 12. Other specify	Y/N Y/N Y/N Y/N Y/N Y/N Y/N Y/N Y/N Y/N Y/N Y/N
Q-55	Have you or any member of the household used digital financial services to pay for government services?	Y/N	NO, GO TO Q-59
Q-56	Which government services has the household accessed using digital financial services?	1. RTSA services 2. Ministry of Land services 3. PACRA services 4. ZRA services 5. NAPSA services 6. NHIMA services 7. Ministry of Home Affairs services 8. Farmer Input Support Program (FISP) 9. Social cash transfer 10. Other	Y/N Y/N Y/N Y/N Y/N Y/N Y/N Y/N Y/N Y/N

Q-57.	Have you or any member of the household used the Government Service Bus (ZamPortal)?	Y/N	NO, GO TO Q-59
Q-58.	Which Government Service Bus (ZamPortal) service(s) has the household accessed using digital financial services?	1. Department of Co-operatives Services 2. Department of Immigration Services 3. Department of National Parks & Wildlife (ZAWA) Services 4. Department of Tourism Services 5. Lands and Deeds Department Services	Y/N Y/N Y/N Y/N Y/N

	6. Lands Department Services	Y/N	
	7. Patents & Company Registration Agency (PACRA) Services	Y/N	
	8. Registrar of Societies Services	Y/N	
	9. Road Traffic and Safety Agency (RTSA) Services	Y/N	
	10. Survey Department Services	Y/N	
	11. Zambia Compulsory Standards Agency Services	Y/N	
	12. Zambia Police Service (ZP) Services	Y/N	
	13. Other Services specify	Y/N	

#	e-WASTE SECTION	OPTIONS	
Q-59	Has the household ever disposed of any electronic or electric item(s)?	Y/N	NO, GO TO Q-65
Q-60	What was the reason for disposal?	1. Damaged	Y/N
		2. Malfunctioning	Y/N
		3. Counterfeits (<i>imitated products</i>)	Y/N
		4. No longer useful to the household	Y/N
		5. Need to upgrade	Y/N
		6. Statutory requirement e.g. migration from analogue to digital TV, phasing out of CFC fridge etc.	Y/N
		7. Other specify	Y/N
Q-61	Which of the following electronic/electric item(s), that were damaged or no longer useful to the household, did the household disposed of?	1. Stove	Y/N
		2. Fridge	Y/N
		3. Phone (mobile or fixed)	Y/N
		4. Microwave	Y/N
		5. Computers	Y/N
		6. Blender	Y/N
		7. Electric kettle	Y/N
		8. Television	Y/N
		9. Radio	Y/N
		10. Scanner	Y/N
		11. Printer	Y/N
		12. Washing machine	Y/N
		13. Air conditioner unit	Y/N
		14. Fan	Y/N
		15. Heater	Y/N
		16. Projector	Y/N
		17. VCR player	Y/N
		18. DVD player	Y/N
		19. Hi-Fi system	Y/N
		20. Batteries	Y/N
		21. Solar panel	Y/N
		22. LED/LCD light	Y/N
		23. Other	Y/N
Q-62	How many of the following items, which are damaged or no longer useful to the household, have you disposed of in the last 3 years? ONLY OPTIONS PICKED IN Q-61 MUST BE VIEWED HERE	1. Stove	
		2. Fridge	
		3. Phone (mobile or fixed)	
		4. Microwave	
		5. Computers	
		6. Blender	
		7. Electric kettle	
		8. Television	
		9. Radio	
		10. Scanner	
		11. Printer	
		12. Washing machine	
		13. Air conditioner unit	
		14. Fan	
		15. Heater	
		16. Projector	
		17. VCR player	
		18. DVD player	
		19. Hi-Fi system	
		20. Batteries	
		21. Solar panel	

		22. LED/LCD light	
		23. Other	
Q-63	How long (in years) did the household use the electronic or electric item before disposal? ONLY OPTIONS PICKED IN Q-61 MUST BE VIEWED HERE	1. Stove 2. Fridge 3. Phone (mobile or fixed) 4. Microwave 5. Computers 6. Blender 7. Electric kettle 8. Television 9. Radio 10. Scanner 11. Printer 12. Washing machine 13. Air conditioner unit 14. Fan 15. Heater 16. Projector 17. VCR player 18. DVD player 19. Hi-Fi system 20. Batteries 21. Solar panel 22. LED/LCD light 23. Other	
Q-64	What was the state of the disposed of electronic or electric item at the time acquired by the household? ONLY OPTIONS PICKED IN Q-61 MUST BE VIEWED HERE	1. Stove 2. Fridge 3. Phone (mobile or fixed) 4. Microwave 5. Computers 6. Blender 7. Electric kettle 8. Television 9. Radio 10. Scanner 11. Printer 12. Washing machine 13. Air conditioner unit 14. Fan 15. Heater 16. Projector 17. VCR player 18. DVD player 19. Hi-Fi system 20. Batteries 21. Solar panel 22. LED/LCD light	1. Brand new 2. Pre-owned 1. Brand new 2. Pre-owned
Q-65	Is the household aware of safe disposal of electronic or electric wastes (e-wastes)?	Y/N	IF NO IN Q-59 & Q-65, GO TO Q-69 IF NO TO Q-65 ONLY, GO TO Q-67
Q-66	Is the household making use of safe disposal of e-wastes?	Y/N	
Q-67	How can the government help household to comply with safe disposal of e-wastes? (give suggestions)		
		1. Land fill	Y/N

Q-68	Which of the following mode (s) of disposal of e-wastes was used by the households to dispose of the electronic/electric wastes identified above?	2. Trash truck	Y/N	
		3. Trash bin	Y/N	
		4. Stashing away	Y/N	
		5. Giving away	Y/N	
		6. Shredding/Crushing/Burning	Y/N	
		7. Selling for parts	Y/N	
		8. Exchanged with other useful tools e.g. broom	Y/N	
		9. Selling to recyclers	Y/N	
		10. Other specify	Y/N	
		Y/N		ASK IF OPTIONS 7 OR 9 OR BOTH IN Q-68 ARE AMONG THE PROVIDED SELECTION
Q-69	Does the household know of any e-waste collectors or recyclers	Y/N		

END OF QUESTIONNAIRE

INDIVIDUAL RESPONDENT QUESTIONNAIRE

IDENTIFICATION PARTICULARS	CODE
13. PROVINCE NAME:	<input type="text"/> <input type="text"/>
14. DISTRICT NAME:	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
15. CONSTITUENCY NAME:	<input type="text"/> <input type="text"/> <input type="text"/>
16. WARD NAME:	<input type="text"/> <input type="text"/>
17. REGION (Rural = 1, Urban = 2)	<input type="text"/>
18. CSA NUMBER:	<input type="text"/> <input type="text"/>
19. EA NUMBER:	<input type="text"/>
20. CLUSTER NUMBER:	<input type="text"/> <input type="text"/> <input type="text"/>
21. HOUSEHOLD SERIAL NUMBER	<input type="text"/> <input type="text"/> <input type="text"/>
22. LOCALITY OR VILLAGE NAME:	

SECTION 1: ICT ACCESS, DISTRIBUTION AND USAGE

Qn. No.	Questions	Options for Responses		Instructions
Q-1.	Do you know how to use the following ICT devices?	1. Desktop computer 2. Laptop 3. Tablet 4. Smartphone 5. Smart TV 6. Other, specify	Y/N Y/N Y/N Y/N Y/N Y/N	NO TO ALL, GO TO Q-4 PLEASE TICK ALL THAT APPLY
Q-2.	Which of the following activities have you carried out on the device(s)?	A. Copying or moving a file or folder B. Using copy and paste tools to duplicate or move information within a document C. Sending e-mails with attached files (e.g. document, picture, video) D. Using basic arithmetic formulae in a spreadsheet E. Connecting and installing new devices (e.g. a modem, camera, printer) F. Finding software G. Downloading software H. Installing software I. Configuring software J. Creating electronic presentations with presentation software (including text, images, sound, video or charts) K. Transferring files between a computer and other devices L. Writing a computer program using a specialized programming language M. Creating video conferencing e.g. virtual meetings etc.	Y/N Y/N Y/N Y/N Y/N Y/N Y/N Y/N Y/N Y/N Y/N Y/N Y/N Y/N Y/N	NO TO ALL, GO TO Q-5 PLEASE TICK ALL THAT APPLY
Q-3.	Which of the following activities have you carried out on the device(s) in the last 3 months?	A. Copying or moving a file or folder B. Using copy and paste tools to duplicate or move information within a document C. Sending e-mails with attached files (e.g. document, picture, video) D. Using basic arithmetic formulae in a spreadsheet E. Connecting and installing new devices (e.g. a modem, camera, printer) F. Finding software G. Downloading software H. Installing software I. Configuring software J. Creating electronic presentations with presentation software (including text, images, sound, video or charts) K. Transferring files between a computer and other devices L. Writing a computer program using a specialized programming language M. Creating video conferencing e.g. virtual meetings etc.	Y/N Y/N Y/N Y/N Y/N Y/N Y/N Y/N Y/N Y/N Y/N Y/N Y/N Y/N	PLEASE TICK ALL THAT APPLY
Q-4.	Give reason(s) why you do not know how to use ICT devices?	1. I have never learnt how to use them 2. I have no use for ICT devices 3. I don't how to read and write 4. Lack of interest 5. Lack of exposure 6. Other specify		
Q-5.	Have you used a mobile cellular telephone in the last three months for a call, SMS or data?		Y/N	NO, GO TO Q-10

Q-6.	Did you own any of the mobile cellular telephone that you used?	Y/N	NO, GO TO Q-10
Q-7.	Was the mobile cellular telephone purchased in Zambia?	Y/N/ I don't know	
Q-8.	At the time of purchase was the mobile phone brand new?	Y/N/ I don't know	
Q-9.	Are you aware of any certification process for the mobile cellular telephone(s) you purchased?	Y/N	
Q-10.	How many SIM cards do you have? <i>(Dial *101# to check SIM registration status)</i>	If 0 skip to Q-20	
Q-11.	Are they all registered in your name? <i>(Dial *101# to check SIM registration status)</i>	Y/N	YES, GO TO Q-13
Q-12.	Is any of your SIM cards registered in the name of a person you do not know? <i>(Dial *101# to check SIM registration status)</i>	Y/N	
Q-13.	How many of your mobile cellular telephone(s) have no IMEI numbers? <i>(Dial *#06# to see the IMEI number)</i>		
Q-14.	Which mobile cellular operator(s) are you subscribed to?	1. Airtel 2. MTN 3. Zamtel 4. Foreign	Y/N Y/N Y/N Y/N PLEASE TICK ALL THAT APPLY
Q-15.	Which is your most preferred mobile cellular network operator?	1. Airtel 2. MTN 3. Zamtel 4. Foreign	
Q-16.	What is the main reason for preferring this network to others?	1. It's the only network available here 2. Most of my contacts are on the network 3. They have good promotions 4. Number is known by most of my contacts 5. Not expensive/affordable 6. Better quality of service 7. Good customer service/care 8. Other, specify	
Q-17.	Have you ever experienced the following in the course of using a mobile cellular telephone services?	1. Poor clarity of voice calls 2. Delayed call set-up time beyond 10s 3. Any dropped calls 4. Delayed SMS delivery time beyond 5s 5. Network intermittence or outage 6. Unsatisfactory handling of complaint by service provider 7. Other, specify	Y/N Y/N Y/N Y/N Y/N Y/N Y/N IF NO TO ALL GO TO Q-20 PLEASE TICK ALL THAT APPLY
Q-18.	How often have you experienced the following in the course of using mobile cellular phone?	1. Poor clarity of voice calls 2. Delayed call set-up time beyond 10s 3. Any dropped calls	1. Rarely 2. Often 3. Very often 1. Rarely 2. Often 3. Very often 1. Rarely 2. Often PLEASE TICK ALL THAT APPLY

	ASK TO ALL CORRESPONDING YES RESPONSES IN Q-17	3. Very often	
		4. Delayed SMS delivery time beyond 5s	1. Rarely 2. Often 3. Very often
		5. Network intermittence or outage	1. Rarely 2. Often 3. Very often
		6. Unsatisfactory handling of complaint by service provider	1. Rarely 2. Often 3. Very often
		1. Voice Clarity	1. Excellent 2. Very Good 3. Good 4. Fair 5. Poor
		2. Call set-up time	1. Excellent 2. Very Good 3. Good 4. Fair 5. Poor
		3. Frequency of Call drops	1. Excellent 2. Very Good 3. Good 4. Fair 5. Poor
Q-19.	On a scale of 1 to 5, how do you rate your experience with the following parameters regarding the service you are getting from the mobile cellular telephone provider?	4. SMS delivery time	1. Excellent 2. Very Good 3. Good 4. Fair 5. Poor
		5. Network availability	1. Excellent 2. Very Good 3. Good 4. Fair 5. Poor
		6. Complaint handling by service providers	1. Excellent 2. Very Good 3. Good 4. Fair 5. Poor
		7. Overall quality of service	1. Excellent 2. Very Good 3. Good 4. Fair 5. Poor
Q-20.	Are you aware of the existence of the following toll-free emergency numbers in Zambia?	1. Child help line 116	Y/N
		2. Police 991	Y/N
		3. Fire 993	Y/N
		4. RTSA 983	Y/N
		5. Zesco 3636	Y/N
		6. GBV toll-free 933	Y/N
		7. Consumer protection toll-free line 5678	Y/N
		8. ZICTA call Centre 7070	Y/N
Q-21.	How often do you buy airtime?	1. Daily 2. Weekly 3. Fortnightly 4. Monthly	
Q-22.	What mode(s) do you use to purchase airtime, ranked in order of preference?	1. Scratch cards 2. Mobile money 3. Mobile banking 4. Internet banking 5. Agents (e.g. Kazang) 6. Over-the-counter direct top-up 7. Other, specify	Y/N Y/N Y/N Y/N Y/N Y/N Y/N
Q-23.	Do you buy bundles?	Y/N	
Q-24.	Which mode(s) do you use to buy bundles?	1. Airtime 2. Mobile banking via USSD 3. Mobile money	Y/N Y/N Y/N
Q-25.		1. Data 2. Minutes/SMS	Y/N Y/N

	What type(s) of bundles do you buy?	3. Minutes 4. Combo (SMS/Minutes/Data) 5. Other, specify	Y/N Y/N Y/N	
Q-26.	What validity period(s) do you normally subscribe to?	1. Daily 2. Weekly 3. Monthly 4. 2 months 5. 3 months 6. 6 months 7. Yearly 8. Non-expiry 9. Other, specify	Y/N Y/N Y/N Y/N Y/N Y/N Y/N Y/N Y/N	PLEASE TICK ALL THAT APPLY. Map
Q-27.	On average, how much do you spend on airtime monthly?	ZMW		
Q-28.	Is the cost of mobile cellular telephone communication affordable?		Y/N	YES, GO TO Q-30
Q-29.	How much are you willing to spend on mobile cellular communication per week?			
Q-30.	Do you own a smartphone? SHOW NOTE PROMPT TO ENUMERATORS GIVING DESCRIPTION OF THE SMARTPHONE		Y/N	NO, GO TO Q-33
Q-31.	Do you use your smartphone to access Over-the-Top (OTT) applications like WhatsApp, Viber, Facebook, Skype, Twitter, Instagram etc.?		Y/N	NO, GO TO Q-36
Q-32.	Do you use OTT applications for the following activities?	1. Instant messaging 2. Video Calling 3. Voice calling 4. Content Creation e.g. posting a blog or video 5. Social Networking 6. Browsing the internet 7. E-commerce 8. Content monetization 9. Other, specify	Y/N Y/N Y/N Y/N Y/N Y/N Y/N Y/N Y/N	IF ANSWERED GO TO Q-36 PLEASE TICK ALL THAT APPLY
Q-33.	What are the barriers from owning a smartphone?	1. Costs 2. Cultural norms 3. Religious belief 4. Limited data coverage (3G,4G) 5. Lack of knowledge to use device 6. Not user-friendly to PwDs 7. Other, specify	Y/N Y/N Y/N Y/N Y/N Y/N Y/N	PLEASE TICK ALL THAT APPLY
Q-34.	Are you willing to buy a smartphone to have access to the internet?		Y/N	NO, GO TO Q-36

SECTION 2: E-WASTE

Qn. No.	Questions	Options for Responses		Instructions
Q-36.	Have you ever disposed of any of the following item(s)?	1. Mobile phone (Basic, standard, smartphones)	Y/N	IF NO TO ALL GO TO Q-39 PLEASE TICK ALL THAT APPLY
		2. Backup power storages (Power bank, UPS etc.)	Y/N	
		3. Charger	Y/N	
		4. Battery	Y/N	
		5. Computer (Laptop, tablet, PDA etc.)	Y/N	
		6. Data storage devices (Flash drives, memory cards, CDs, floppy disks, external Hard drive etc.)	Y/N	
		7. Adaptor	Y/N	
		8. Accessories (headsets, data cables, power packs, mouse etc.)	Y/N	
		9. Cameras	Y/N	
		10. Game consoles	Y/N	
		11. Other, specify	Y/N	
Q-37.	How many of the following items have you disposed of in last one years? ONLY DISPLAY OPTIONS SELECTED IN Q-36	1. Mobile phone (Basic, standard, smartphones)		
		2. Backup power storages (Power bank, UPS etc.)		
		3. Charger		
		4. Battery		
		5. Computer (Laptop, tablet, PDA etc.)		
		6. Data storage devices (Flash drives, memory cards, CDs, floppy disks, external Hard drive etc.)		
		7. Adaptor		
		8. Accessories (headsets, data cables, power packs, mouse etc.)		
		9. Cameras		
		10. Game consoles		
		11. Other, specify		
Q-38.	How did you dispose of electronic and electrical devices which were damaged and/or are no longer useful to you?	1. Giving away (donate, give)	Y/N	PLEASE TICK ALL THAT APPLY
		2. Burning	Y/N	
		3. Sold (for reuse, recycling etc.)	Y/N	
		4. Threw at a landfill	Y/N	
		5. Threw in a trash can	Y/N	
		6. Stashing away e.g. in drawer etc.	Y/N	
		7. Other, specify	Y/N	
Q-39.	Are you aware of the dangers associated with unsafe disposal of electronic and electrical devices that are no longer in use?	Y/N		NO, GO TO Q-41
Q-40.	What dangers are you aware of which are associated with unsafe disposal of electronic and electrical devices?	1. Air pollution	Y/N	PLEASE TICK ALL THAT APPLY
		2. Water pollution	Y/N	
		3. Soil contamination	Y/N	
		4. Other, specify	Y/N	

SECTION 3: INTERNET USAGE FOR INDIVIDUALS

Qn. No.	Questions	Options for Responses		Instructions
Q-41.	Have you ever used the internet?	Y/N		IF YES, GO TO Q-43
Q-42.	What is the main reason for not using the internet?	1. I don't know how to use it 2. Internet service is not available 3. It's expensive 4. Prohibition by third party 5. Lack of interest 6. No internet facility nearby 7. It is intimidating/frightening (cyber phobia) 8. Religious/Cultural beliefs 9. I have no device for accessing it 10. Other, specify		IF ANSWERED GO TO Q-94
Q-43.	Have you used the internet at least once in the last 3 months?	Y/N		IF NO, GO TO Q-46
Q-44.	How often did you use the internet in the last 3 months?	1. At least once a day 2. At least once a week but not every day 3. At least once a month		
Q-45.	Where did you use the internet in the last 3 months?	1. Home 2. Work 3. place of education 4. Another person's home 5. Facility open to the public 6. Community internet Access facility 7. While commuting, in transport or walking 8. Other locations, specify	Y/N Y/N Y/N Y/N Y/N Y/N Y/N Y/N	PLEASE TICK ALL THAT APPLY
Q-46.	Do you have your own email address?	Y/N		IF NO, GO TO Q-49
Q-47.	How many email addresses do you have?			
Q-48.	What email address type(s) do you have?	1. Yahoo 2. Gmail 3. Outlook Mail 4. Hotmail 5. Myway 6. Zamnet 7. Live 8. Corporate email 9. Other, specify	Y/N Y/N Y/N Y/N Y/N Y/N Y/N Y/N Y/N	PLEASE TICK ALL THAT APPLY
Q-49.	Do you use any cloud services?	Y/N		IF NO, GO TO Q-51
Q-50.	Which cloud services have you used in the last 3 months?	1. One drive 2. Amazon Web Services (AWS) 3. iCloud 4. Microsoft Azure 5. Dropbox 6. Google Drive 7. Other, Specify	Y/N Y/N Y/N Y/N Y/N Y/N Y/N	PLEASE TICK ALL THAT APPLY
Q-51.	What activities do you undertake when you are browsing/surfing the internet?	1. Studying 2. Research 3. Business 4. E-mail 5. Social Networking 6. Online Shopping 7. Internet Banking	Y/N Y/N Y/N Y/N Y/N Y/N Y/N	PLEASE TICK ALL THAT APPLY

		8. Learning	Y/N	
		9. Gaming	Y/N	
		10. Downloading materials	Y/N	
		11. Reading Publications	Y/N	
		12. Watching videos and/or movies	Y/N	
		13. Watching online TV	Y/N	
		14. Online betting	Y/N	
		15. Listening to online music and/or radio (audio streaming)	Y/N	
		16. Video conferencing (virtual meetings etc.)	Y/N	
		17. Accessing cloud services	Y/N	
		18. Other, specify	Y/N	
Q-52.	On a scale of 1-5 how satisfied are you, AS A USER OF INTERNET , with the following ASPECTS of service delivery?	ATTRIBUTES OF SERVICE DELIVERY		
		A. PROVISION OF SERVICE INFORMATION	1. Excellent 2. Very Good 3. Good 4. Fair 5. Poor	
		B. CUSTOMER SERVICES	1. Excellent 2. Very Good 3. Good 4. Fair 5. Poor	
		C. COMPLAINT RESOLUTION	1. Excellent 2. Very Good 3. Good 4. Fair 5. Poor	
		D. ACCURACY IN BILLING	1. Excellent 2. Very Good 3. Good 4. Fair 5. Poor	
		E. INTERNET SPEED	1. Excellent 2. Very Good 3. Good 4. Fair 5. Poor	
		F. RELIABILITY OF OVERALL SERVICES	1. Excellent 2. Very Good 3. Good 4. Fair 5. Poor	
Q-53.	Which Internet service providers have you used before?	1. Airtel (mobile service)	Y/N	PLEASE TICK ALL THAT APPLY
		2. Airtel (fixed service)	Y/N	
		3. MTN (mobile service)	Y/N	
		4. MTN (fixed service)	Y/N	
		5. Zamtel (mobile service)	Y/N	
		6. Zamtel (fixed service)	Y/N	
		7. Africonnect (Inq Digital)	Y/N	
		8. City Channels	Y/N	
		9. Dimension Data	Y/N	
		10. Liquid Telecom	Y/N	
		11. Isat Africa	Y/N	
		12. Paratus Telecom	Y/N	
		13. Preworx	Y/N	
		14. Zamnet Solutions	Y/N	
		15. Other, specify	Y/N	
Q-54.	What type(s) of internet services do you use? <i>Same highlight represent technologies in the same broad classification</i>	1. Analogue modem (dial-up via standard telephone line)	Y/N	PLEASE TICK ALL THAT APPLY
		2. ISDN (Integrated Services Digital Network)	Y/N	
		3. DSL (Digital Subscriber Line) at advertised download speeds below 256 kbit/s	Y/N	



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	category in terms of fixed/mobile broadband or fixed/mobile narrowband or satellite	4. Other fixed narrowband with an advertised download speed of less than 256 kbit/s 5. DSL (Digital Subscriber Line) at advertised download speeds of at least 256 kbit/s 6. Cable modem 7. High speed leased lines 8. Fibre-to-the-home/building 9. Powerline 10. Other fixed broadband 11. WiMAX 12. Fixed CDMA 13. Satellite broadband network 14. Mobile Narrowband network (2G, e.g. EDGE, GPRS) via a handset 15. Mobile broadband network (at least 3G, e.g. UMTS) via a handset 16. Integrated SIM card in a computer 17. USB Modems 18. GSM Gateways (router & modem combo) (MiFi, Wi-Fi devices) 19. Other mobile broadband, specify	Y/N	
Q-55.	What type of internet services do you use often? Same highlight represent technologies in the same broad classification category in terms of fixed/mobile broadband, fixed/mobile narrowband or satellite	1. Analogue modem (dial-up via standard telephone line) 2. ISDN (Integrated Services Digital Network) 3. DSL (Digital Subscriber Line) at advertised download speeds below 256 kbit/s 4. Other fixed narrowband with an advertised download speed of less than 256 kbit/s 5. DSL (Digital Subscriber Line) at advertised download speeds of at least 256 kbit/s 6. Cable modem 7. High speed leased lines 8. Fibre-to-the-home/building 9. Powerline 10. Other fixed broadband, specify 11. WiMAX 12. Fixed CDMA 13. Satellite broadband network (via a satellite connection), at advertised download speeds of at least 256 kbit/s 14. Mobile Narrowband network (2G e.g. GPRS, EDGE) via a handset 15. Mobile broadband network (at least 3G, e.g. UMTS) via a handset 16. Integrated SIM card in a computer 17. USB Modem 18. GSM Gateway (router and modem combo) 19. Other mobile broadband network, specify 20. I don't know	IF 14-19, GO TO Q-56, IF 20, GO TO Q-62 OTHERWISE GO TO Q-59 { for options 1 to 13 only one member of the household must allowed to respond to Q-59 & Q-60}	
Q-56.	Which subscriber segment are you?	1. Capped by volume 2. Uncapped by volume (to caters for Zamtel velocity users)	IF 2, GO TO Q-59	
Q-57.	On average, how much volume of data (in Gb) do you use per month?	XXXXX		
Q-58.	What is your monthly expenditure on subscription for XXXXX?	ZMW <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	IF ANSWERED, GO TO Q-61	
	Is the subscription/SLA for the services you are	Y/N	NO SKIP TO Q-61	



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	using between you and the service provider?							
Q-59.	What internet speed do you subscribe to on a monthly basis? (capacity)	YYYYY						
Q-60.	What is your monthly expenditure on subscription for YYYYY?	ZMW	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
Q-61.	How do you rate the cost of internet services for ...?	1. Airtel (mobile service)	1. Expensive 2. Affordable 3. Cheap 4. I don't know					
		2. MTN (mobile service)	1. Expensive 2. Affordable 3. Cheap 4. I don't know					
		3. Zamtel (mobile service)	1. Expensive 2. Affordable 3. Cheap 4. I don't know					
		4. Africonnect (Inq Digital)	1. Expensive 2. Affordable 3. Cheap 4. I don't know					
		5. Airtel (fixed service)	1. Expensive 2. Affordable 3. Cheap 4. I don't know					
		6. City Channels	1. Expensive 2. Affordable 3. Cheap 4. I don't know					
		7. Dimension Data	1. Expensive 2. Affordable 3. Cheap 4. I don't know					
		8. Liquid Telecom	1. Expensive 2. Affordable 3. Cheap 4. I don't know					
		9. Isat Africa	1. Expensive 2. Affordable 3. Cheap 4. I don't know					
		10. MTN (fixed service)	1. Expensive 2. Affordable 3. Cheap 4. I don't know					
		11. Paratus Telecom	1. Expensive 2. Affordable 3. Cheap 4. I don't know					
		12. Preworx	1. Expensive 2. Affordable 3. Cheap 4. I don't know					
		13. Zamnet Solutions	1. Expensive 2. Affordable 3. Cheap 4. I don't know					
		14. Zamtel (fixed service)	1. Expensive 2. Affordable 3. Cheap 4. I don't know					
Q-62.	In general, how do you rate the cost of internet services in Zambia?	1. Expensive 2. Affordable 3. Cheap 4. I don't know						
Q-63.	In general, how much are you willing to pay for internet services monthly?	ZMW	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	

SECTION 4: INTERNET RISKS

Qn. No.	Questions	Options for Responses	Instructions
Q-64.	Do you know of any dangers or risks that exist from using the internet?	Y/N	IF NO, GO TO Q-79
Q-65.	What are the online/internet risks that you know of?	A. Fake News B. Phishing C. Financial Fraud D. Adult pornography E. Child pornography F. Cyber bullying G. Grooming H. False alarms I. Identity theft J. Violence K. Terrorism L. Hate speech M. Damage to reputation N. Sexting O. Impersonation P. Fake online promotions Q. Scams R. Hacking S. Online Defamation T. Other specify	PLEASE TICK ALL THAT APPLY
Q-66.	Have you ever been exposed to any of the following risks online/internet?	A. Fake News B. Phishing C. Financial Fraud D. Adult pornography E. Child pornography F. Cyber bullying G. Grooming H. False alarms I. Identity theft J. Violence K. Terrorism L. Hate speech M. Damage to reputation N. Sexting O. Impersonation P. Fake online promotions Q. Scams R. Hacking S. Online Defamation T. Other specify	PLEASE TICK ALL THAT APPLY
Q-67.	Have you ever been a victim of any of the following online/internet risks?	A. Fake News B. Phishing C. Financial Fraud D. Adult pornography E. Child pornography F. Cyber bullying G. Grooming H. False alarms I. Identity theft J. Violence K. Terrorism L. Hate speech M. Damage to reputation N. Sexting O. Impersonation P. Fake online promotions Q. Scams R. Hacking S. Online Defamation T. Other specify	ASK ONLY FOR OPTIONS SELECTED IN Q-66

Q-68.	Do you have any social media account?	Y/N		IF NO, GO TO Q-72
Q-69.	Which social media account(s) do you have?	A. Twitter	Y/N	PLEASE TICK ALL THAT APPLY
		B. Facebook	Y/N	
		C. WhatsApp	Y/N	
		D. Google +	Y/N	
		E. Instagram	Y/N	
		F. Viber	Y/N	
		G. Snap Chat	Y/N	
		H. WeChat	Y/N	
		I. Skype	Y/N	
		J. Linked-in	Y/N	
		K. Windows Live	Y/N	
		L. Yahoo Messenger	Y/N	
		M. Telegram	Y/N	
		N. Twoo	Y/N	
		O. Badoo	Y/N	
		P. Tinder	Y/N	
		Q. Tik-Tok	Y/N	
		R. Other specify	Y/N	
		Q-70.	Which social media do you use the most?	
Q-71.	Have you ever encountered any of the following online/internet risks while using the social media?	A. Fake News	Y/N	PLEASE TICK ALL THAT APPLY
		B. Phishing	Y/N	
		C. Financial Fraud	Y/N	
		D. Adult pornography	Y/N	
		E. Child pornography	Y/N	
		F. Cyber bullying	Y/N	
		G. Grooming	Y/N	
		H. False alarms	Y/N	
		I. Identity theft	Y/N	
		J. Violence	Y/N	
		K. Terrorism	Y/N	
		L. Hate Speech	Y/N	
		M. Damage to reputation	Y/N	
		N. Sexting	Y/N	
		O. Impersonation	Y/N	
		P. Fake online promotions	Y/N	
		Q. Scams	Y/N	
		R. Hacking	Y/N	
		S. Online Defamation	Y/N	
T. Other, specify	Y/N			
Q-72.	Have you ever had contact on the internet with someone you have not met face-to-face before?	Y/N		IF NO, GO TO Q-74
Q-73.	Have you ever met anyone face-to-face (in-person) that you first got to know online?	Y/N		
Q-74.	Are you aware that production/possession/circulation of obscene materials, including pornography, is a crime in Zambia?	Y/N		
Q-75.	What would you do if you are exposed to obscene materials on the internet?	A. Report it to the site you are on if it popped up	Y/N	PLEASE TICK ALL THAT APPLY
		B. Report to the Internet service provider to block the site	Y/N	
		C. Report to Zambia Police	Y/N	
		D. Talk to someone you trust	Y/N	
		E. Close the site	Y/N	
		F. Share with others	Y/N	
		G. Surf on	Y/N	
		H. If child content, report to Internet Watch Foundation (IWF) portal	Y/N	

		I. If child, report child helpline 116	Y/N	
		J. Use filters to block offensive or adult material	Y/N	
		K. Seek support to prevent access to the website	Y/N	
		L. Report to ZICTA	Y/N	
		M. Other, specify	Y/N	
Q-76.	Do you know how to activate security or privacy settings on social media or internet browser in order to protect yourself?	Y/N		
Q-77.	Have you ever received notifications from your service provider (ISP, MNO etc.) regarding tools or strategies to help mitigate or control internet risks?	Y/N		
Q-78.	On a scale of 1 to 5, how do you rate your experience with Technical measures to protect children online regarding your primary ICT service provider?	Technical measures to protect children online	1. Poor 2. Fair 3. Good 4. Very Good 5. Excellent	ASK TO CHILDREN ONLY (those below 18 years)

SECTION 5: E-SERVICES

Qn. No.	Questions	Options for Responses		Instructions
Q-79.	Have you ever used the internet to purchase any goods and/or services?	Y/N		IF NO, GO TO Q-89
Q-80.	Have you ever encountered any problems/challenges in the course of purchasing of goods and services using the internet?	Y/N		IF NO, GO TO Q-82
Q-81.	What kind of problems did you face purchasing goods and services online?	1. Delayed delivery	Y/N	PLEASE TICK ALL THAT APPLY
		2. Misplaced goods	Y/N	
		3. Damaged goods	Y/N	
		4. Undelivered goods	Y/N	
		5. Stolen goods	Y/N	
		6. Misrepresentation of goods	Y/N	
Q-82.	How did you pay for the goods and/or services?	1. Merchant aggregators (PayPal, eBay, amazon, Alibaba)	Y/N	PLEASE TICK ALL THAT APPLY
		2. Remittance Services (e.g. Western Union, Mukuru)	Y/N	
		3. Payment card (VISA, Master Card, American Express etc.)	Y/N	
		4. Mobile money	Y/N	
		5. Telegraphic Transfer	Y/N	
		6. Other, specify	Y/N	
Q-83.	Did you encounter difficulties in the process of transacting with ...	1. Merchant aggregators (PayPal, eBay, amazon, Alibaba, Find generic term)	Y/N	IF ALL THE OPTIONS TO Q-83 ARE NO GO TO Q-87 ASK ONLY FOR OPTIONS SELECTED IN Q-82
		2. Remittance Services (e.g. Western Union, Mukuru)	Y/N	
		3. Payment card (VISA, Master Card, American Express etc.)	Y/N	
		4. Mobile money	Y/N	
		5. Telegraphic Transfer	Y/N	

		6. Other, specify	Y/N	
Q-84.	Was the problem reported to the appropriate service provider?	Y/N		IF NO, GO TO Q-89
Q-85.	Was the problem that you faced resolved?	Y/N, problem under consideration		IF YES, GO TO Q-86 OTHERWISE GO TO Q-89
Q-86.	How was the problem resolved?	1. Refund 2. Goods were resent 3. Got a discount on the next purchase of goods/services 4. Money was converted into bonus/reward points 5. Goods were exchanged 6. Not yet 7. Other, specify		
Q-87.	Did you receive the goods and/or services?	Y/N		IF NO, GO TO Q-89
Q-88.	How were the goods or services delivered?	1. Zampost 2. Courier Company 3. Logistics Company 4. Clearing Agent 5. Bus Company 6. Seller 7. Downloads 8. Online services 9. Other, specify		PLEASE TICK ALL THAT APPLY
Q-89.	Have you ever used any App-based freelance services? e.g. Ulendo, Afri-delivery, Yango, Air BnB	Y/N		IF NO, GO TO Q-93
Q-90.	Which App-based freelance services have you ever used?	A. Ulendo taxi B. Ulendo works C. Ulendo eats D. Ulendo homes E. My Ride F. Afri-Delivery G. Tigmo eats H. Yango I. Air BnB J. Other, specify		PLEASE TICK ALL THAT APPLY
Q-91.	How much is your monthly expenditure on these freelance App-based services?			
Q-92.	Have you ever used these freelance platforms to provide services?	Y/N		

SECTION 3: REGULATORY SECTION

Qn. No.	Questions	Options for Responses		Instructions
Q-93.	Have you ever experienced any problems with regards to the usage of the following services?	1. Voice	Y/N	IF NO TO ALL OPTIONS GO TO Q-66 PLEASE TICK ALL THAT APPLY
		2. Data	Y/N	
		3. SMS	Y/N	
		4. Letter Postage	Y/N	
		5. Post Box	Y/N	
		6. Parcel transmission	Y/N	
		7. Mobile money	Y/N	
Q-94.	What kind of problem did you experience with VOICE ?			ASK IF YES TO 1 IN Q-93
Q-95.	What kind of problem did you experience with DATA ?			ASK IF YES TO 2 IN Q-93
Q-96.	What kind of problem did you experience with SMS ?			ASK IF YES TO 3 IN Q-93
Q-97.	What kind of problem did you experience with LETTER POSTAGE ?			ASK IF YES TO 4 IN Q-93
Q-98.	What kind of problem did you experience with POST BOX ?			ASK IF YES TO 5 IN Q-93
Q-99.	What kind of problem did you experience with TRANSMISSION OF PARCELS ?			ASK IF YES TO 6 IN Q-93
Q-100.	If you encounter problems in your usage of the services in Q-93, to which institution do you report your concerns?	1. ZICTA 2. Service Provider (e.g. Airtel, Liquid, Zampost, Fedex, Power Tools) 3. CCPC 4. Bank of Zambia 5. Police 6. Ministry of Technology and Science 7. District Commissioner's Office 8. Ward Councilor 9. Parliamentary Constituency Office 10. Did not report anywhere 11. Other, specify		THIS QUESTION MUST BE ASKED FOR EACH OPTION SELECTED IN Q-93
Q-101.	Have you ever heard about the Zambia Information & Communication Technology Authority (ZICTA)?	Y/N	IF NO, GO TO Q-107 The YES response must be prefilled if ZICTA is selected in Q-100	
Q-102.	What is ZICTA's mandate?	A. Enforcement of Quality of ICT services	Y/N	
		B. Voice tariff regulation	Y/N	
		C. Data tariff regulation	Y/N	
		D. SMS tariff regulation	Y/N	
		E. Complaints Resolutions	Y/N	
		F. Consumer Protection	Y/N	
		G. Consumer Awareness	Y/N	
		H. Cybersecurity	Y/N	
		I. Access to ICT services	Y/N	
		J. Postal regulation	Y/N	
		K. Courier regulation	Y/N	
		A. Enforcement of Quality of ICT services	1. Excellent 2. Very Good 3. Good 4. Fair 5. Poor 6. Not sure	ONLY ITEMS SELECTED IN Q-102 MUST BE DISPLAYED
Q-103.	How do you rate the effectiveness of ZICTA as a regulator in performing the following functions?		1. Excellent 2. Very Good 3. Good 4. Fair 5. Poor	
	B. Voice tariff regulation	1. Excellent 2. Very Good 3. Good 4. Fair 5. Poor		

		C. Data tariff regulation	6. Not sure 1. Excellent 2. Very Good 3. Good 4. Fair 5. Poor 6. Not sure	
		D. SMS tariff regulation	1. Excellent 2. Very Good 3. Good 4. Fair 5. Poor 6. Not sure	
		E. Complaints Resolutions	1. Excellent 2. Very Good 3. Good 4. Fair 5. Poor 6. Not sure	
		F. Consumer Protection	1. Excellent 2. Very Good 3. Good 4. Fair 5. Poor 6. Not sure	
		G. Consumer Awareness	1. Excellent 2. Very Good 3. Good 4. Fair 5. Poor 6. Not sure	
		H. Access to ICT services	1. Excellent 2. Very Good 3. Good 4. Fair 5. Poor 6. Not sure	
		I. Cybersecurity Crime	1. Excellent 2. Very Good 3. Good 4. Fair 5. Poor 6. Not sure	
		J. Postal regulation	1. Excellent 2. Very Good 3. Good 4. Fair 5. Poor 6. Not sure	
		K. Courier regulation	1. Excellent 2. Very Good 3. Good 4. Fair 5. Poor 6. Not sure	
Q-104.	Have you ever contact ZICTA using 7070?	Y/N		IF NO GO TO Q-77 ASK IF OPTION 8 IN Q-20 SELECTED
Q-105.	On a scale of 1 to 5, how do you rate your interaction with ZICTA on the 7070 line?	1. Customer service	1. Excellent 2. Very Good 3. Good 4. Fair 5. Poor	
		2. Complaint resolution	1. Excellent 2. Very Good 3. Good 4. Fair 5. Poor	
		3. Handling time	1. Excellent 2. Very Good	

			3. Good 4. Fair 5. Poor	
	4. Successful connection to call centre agent		1. Excellent 2. Very Good 3. Good 4. Fair 5. Poor	
Q-106.	On a scale of 1 to 5, how do you rate your experience with Access to service centres for persons with disability regarding your primary ICT service provider?		1. Excellent 2. Very Good 3. Good 4. Fair 5. Poor	ASK TO PwDs ONLY

SECTION 5: POSTAL & COURIER SERVICES

Qn. No.	Question	Response and Option(s)		Instruction(s)	
Q-107.	Are you aware of the following services?	1. Postal services	Y/N	IF YES TO 1 ONLY, GO TO Q-108; IF YES TO 2 ONLY, GO TO Q-113 IF NO TO BOTH, GO TO Q-120	
		2. Courier services	Y/N		
Q-108.	Have you ever used any of the postal services offered by Zampost	Y/N		IF NO, GO TO Q-112	
Q-109.	Which postal services have you used in the last 12 months?	1. Post office box	Y/N	PLEASE TICK ALL THAT APPLY	
		2. Registered mail	Y/N		
		3. Express Mail Service (EMS)	Y/N		
		4. Ordinary mail service	Y/N		
		5. Stamps	Y/N		
		6. Hybrid mail	Y/N		
		7. Other, specify	Y/N		
Q-110.	How would you rate the services that you accessed from Zampost	1. Post office box	1. Excellent 2. Very Good 3. Good 4. Fair 5. Poor	ASK OPTIONS SELECTED IN Q-109 ONLY	
		2. Registered mail	1. Excellent 2. Very Good 3. Good 4. Fair 5. Poor		
		3. Express Mail Service (EMS)	1. Excellent 2. Very Good 3. Good 4. Fair 5. Poor		
		4. Ordinary mail service	1. Excellent 2. Very Good 3. Good 4. Fair 5. Poor		
		5. Stamps	1. Excellent 2. Very Good 3. Good 4. Fair 5. Poor		
		6. Hybrid mail	1. Excellent 2. Very Good 3. Good 4. Fair 5. Poor		
		7. Post office box	1. Excellent 2. Very Good 3. Good 4. Fair 5. Poor		
Q-111.	The last letter/parcel you received how long (in days) did it take to reach you?				
Q-112.	How long (in minutes) does it take to get to the nearest Zampost Post Office? <i>Standard measure (12min to cover a 1 Km walking)</i>	Access to deduced from distance to the Post Office			
Q-113.	Have you ever used any courier services?	Y/N			
Q-114.	How long (in minutes) do you take to get to the nearest courier office? <i>Standard measure (12min to cover a 1 Km walk)</i>	IF NO TO Q-108 & NO TO Q-113 GO TO Q-120			

Q-115.	Which courier service providers have you used in the last 12 months, other than Zampost?	1. Bus e.g. Power Tools, Mazhandu, and P. Mwansa etc.	Y/N	
		2. Traditional courier e.g. DHL, FedEx, Mercury Couriers etc.	Y/N	
		3. Unregistered courier vehicle e.g. car, motorbike	Y/N	
		4. Other, specify	Y/N	
Q-116.	Have you ever experienced any of the following in your use of postal or courier services?	1. Theft of parcel	Y/N	PLEASE TICK ALL THAT APPLY IF NO TO ALL, GO TO Q-118
		2. Damage of parcel	Y/N	
		3. Delay of parcel	Y/N	
		4. Loss of parcel	Y/N	
Q-117.	If you have experienced any of the issues in Q-116, where did you report	1. Postal/Courier service provider	Y/N	PLEASE TICK ALL THAT APPLY
		2. Police	Y/N	
		3. Sender of the item	Y/N	
		4. ZICTA	Y/N	
Q-118.	On a scale given, how would you rate the Zampost services against the following attributes?	5. Other, specify	Y/N	
		1. Timely delivery	6. Excellent 7. Very Good 8. Good 9. Fair 10. Poor	
		2. Customer Service	1. Excellent 2. Very Good 3. Good 4. Fair 5. Poor	
		3. Complaint resolution	1. Excellent 2. Very Good 3. Good 4. Fair 5. Poor	
Q-119.	On a scale given, how would you rate the courier services again the following attributes?	4. Handling of the parcels	1. Excellent 2. Very Good 3. Good 4. Fair 5. Poor	
		5. Pricing	1. Cheap 2. Affordable 3. Expensive	
		1. Timely delivery	1. Excellent 2. Very Good 3. Good 4. Fair 5. Poor	
		2. Customer Service	1. Excellent 2. Very Good 3. Good 4. Fair 5. Poor	
		3. Complaint Resolution	1. Excellent 2. Very Good 3. Good 4. Fair 5. Poor	
		4. Handling of the parcels	1. Excellent 2. Very Good 3. Good 4. Fair 5. Poor	
		5. Pricing	1. Cheap 2. Affordable	

		3. Expensive	
Q-120.	If you have not used postal or courier services before, why is this so?	A. Nothing to send or receive	Y/N
		B. No access to providers of Postal and Courier Services	Y/N
		C. Prefer to transport items myself	Y/N
		D. Prefer to use people that are traveling to parcel's destination	Y/N
		E. I do not trust postal and courier service	Y/N
		F. There is no recourse in case anything happens to my parcel	Y/N
		G. Items take too long when postal and courier services are used	Y/N
		H. Goods are not well handled	Y/N
		I. They are too expensive	Y/N
		J. I don't it	Y/N
		K. Other, specify	Y/N

SECTION 6: DIGITAL FINANCIAL SERVICES

Qn. No.	Question	Response and Option(s)		Instruction(s)
Q-121.	Are you aware of the existence of any digital financial service(s) currently on offer in Zambia? (e.g. mobile money, e-wallet, online banking, etc.)	Y/N		
Q-122.	Do you have any of the following accounts?	1. Bank account	Y/N	PLEASE TICK ALL THAT APPLY
		2. Mobile money account	Y/N	
		3. Electronic wallet	Y/N	
Q-123.	What financial products are you currently using?	1. Commercial bank account (Savings, Current, Fixed deposits etc.)	Y/N	PLEASE TICK ALL THAT APPLY IF NO TO ALL GO TO Q-125
		2. Micro financial account (Bayport etc.)	Y/N	
		3. Saving and credit institutions (Natsave, Building Society etc.)	Y/N	
		4. Electronic wallet	Y/N	
		5. Mobile money account	Y/N	
		6. Money lending	Y/N	
		7. Village banking	Y/N	
		8. Chilimba	Y/N	
		9. Kaloba	Y/N	
		10. Other, specify	Y/N	
Q-124.	How easy is it for you to access these services?	1. Very easy 2. Easy 3. Not sure 4. Difficult 5. Very difficult		ASK FOR EACH OPTION SELECTED IN Q-123
Q-125.	What financial products are you open to using in the future?	1. Commercial bank account (ABSA, Zanaco etc.)	Y/N	PLEASE TICK ALL THAT APPLY ASK ONLY THOSE OPTIONS WITH NO RESPONSES IN Q-123
		2. Micro financial account (Bayport, Zampost etc.)	Y/N	
		3. Saving and Credit institutions (Natsave, Building Society etc.)	Y/N	
		4. E-Wallet (Zoona account, Airtel money account etc.)	Y/N	
		5. Money lending	Y/N	
		6. Village Banking	Y/N	
		7. Chilimba	Y/N	
		8. Kaloba	Y/N	
		9. Other, specify	Y/N	
Q-126.	Is any of your accounts enabled for the following digital financial services?	1. Mobile App	Y/N	PLEASE TICK ALL THAT APPLY ASK THE QUESTION IF YES TO OPTION 1 IN Q-122
		2. Online/Internet banking	Y/N	
		3. WhatsApp Account	Y/N	
		4. USSD	Y/N	

Q-127.	Have you ever transacted using digital financial service(s)?	Y/N		IF YES, GO TO Q-130
Q-128.	Why have you not ever used any of the digital financial services on the market?	1. Preference to transact with cash	Y/N	PLEASE TICK ALL THAT APPLY
		2. Not trustworthy	Y/N	
		3. Feel insecure	Y/N	
		4. Scams	Y/N	
		5. Phobia of technology	Y/N	
		6. Have no money	Y/N	
		7. Unreliable services	Y/N	
		8. Not registered	Y/N	
		9. High transaction costs	Y/N	
		10. No access to digital financial services	Y/N	
		11. Lack of knowledge of the services	Y/N	
		12. I have to ask for permission from my Spouse/Parents	Y/N	
		13. Other, specify	Y/N	
Q-129.	What is the main reason you have never used any of the digital financial services on the market?	1. Preference to transact with cash 2. Not trustworthy 3. Feel insecure 4. Scams 5. phobia of technology 6. Have no money 7. Unreliable services 8. Not registered 9. High transaction costs 10. No access to digital financial services 11. Lack of knowledge of the services 12. I have to ask for permission from my spouse or parents Other		IF ANSWERED GO TO Q-182
Q-130.	How did you activate your mobile money account?	1. At SIM registration point 2. Self 3. Agent 4. Automatic 5. I don't know 6. Other, specify		ASK ONLY THOSE WITH YES OPTION TO 2 IN Q-122
Q-131.	Which digital financial service(s) have you used before?	1. Airtel Money 2. MTN Money 3. Zamtel Kwacha 4. Fuel cards 5. Broad Pay 6. 543 Konse konse 7. Kazang (Spagris) 8. FNB e-Wallet 9. Cash send (Absa) 10. Stanbic IM Voucher 11. Payment cards (Debit, Credit, e-Voucher etc.) 12. Zonna 13. Xapit 14. Swift Cash 15. Shoprite money transfer 16. World remit 17. Western Union 18. MoneyGram 19. Mukuru 20. Other, specify		PLEASE TICK ALL THAT APPLY

Q-132.	Which digital financial service do you use frequently?	1. Airtel Money 2. MTN Money 3. Zamtel Kwacha 4. Fuel cards 5. Broad Pay 6. 543 Konse konse 7. Kazang (Spagris) 8. FNB e-Wallet 9. Cash send (Absa) 10. Stanbic IM Voucher 11. Payment cards (<i>Debit, Credit, e-Voucher etc.</i>) 12. Zonna 13. Xapit 14. Swift Cash 15. Shoprite money transfer 16. World remit 17. Western Union 18. MoneyGram 19. Mukuru 20. Other, specify		
Q-133.	Do you have any preferred digital financial service provider?	Y/N		IF NO, GO TO Q-136
Q-134.	Which service is your most preferred? (Single Response)	1. Airtel Money 2. MTN Money 3. Zamtel Kwacha 4. Fuel card 5. Broad Pay 6. 543 Konse Konse 7. Kazang (Spagris) 8. FNB e-Wallet 9. Cash send (Absa) 10. Stanbic IM Voucher 11. Payment cards (<i>e-Voucher etc.</i>) 12. Zonna 13. Xapit 14. Swift Cash 15. Shoprite money transfer 16. World remit 17. Western Union 18. MoneyGram 19. Mukuru 20. Other		PLEASE TICK ALL THAT APPLY
Q-135.	Give the main reason for your preference.			
Q-136.	Based on your experience with digital financial services, would you consider opening a bank account in the future?	Y/N <small>APPLIES ONLY TO THOSE WITHOUT BANK ACCOUNTS i.e. NO TO OPTION 1 IN Q-122</small>		IF YES, GO TO Q-139
Q-137.	If NO in Q-136, why?			
Q-138.	On average, how many times/transactions do you perform across the mobile money networks/platforms in a month?	Sending	No.	
Q-139.	On average, what is the total value of your mobile money transactions in a month?	Receiving	No.	
Q-140.	Which of the following service(s) do you use digital financial services for?	1. Paying utility bills e.g. electricity, pay TV, water etc. 2. Buying airtime 3. Pay school fees 4. Sending money 5. Receiving money		PLEASE TICK ALL THAT APPLY

		6. Bank to mobile transactions and vice versa	Y/N	
		7. Bank to bank transaction	Y/N	
		8. Savings	Y/N	
		9. Loans	Y/N	
		10. Foreign Remittance (sending and receiving)	Y/N	
		11. Insurance	Y/N	
		12. Betting services	Y/N	
		13. Other	Y/N	
Q-141.	Would you recommend the use of digital financial services to others?	Y/N		IF YES, GO TO Q-143
Q-142.	Why would you not recommend the use of the digital financial services to others?	1. Preference to transact with cash	Y/N	PLEASE TICK ALL THAT APPLY
		2. Not trustworthy	Y/N	
		3. Security concerns	Y/N	
		4. Scams	Y/N	
		5. Unreliable services	Y/N	
		6. High transaction costs/fees	Y/N	
		7. Insufficient float (space) among agents	Y/N	
Q-143.	Have you ever experienced any problem(s) while using digital financial services?	Y/N		IF NO, GO TO Q-147
Q-144.	Which digital financial service (s) has given you problem(s) before?	1. Airtel Money	Y/N	PLEASE TICK ALL THAT APPLY
		2. MTN Money	Y/N	
		3. Zamtel Kwacha	Y/N	
		4. Fuel card	Y/N	
		5. Broad Pay	Y/N	
		6. 543 Konse Konse	Y/N	
		7. Kazang (Spagris)	Y/N	
		8. FNB e-Wallet	Y/N	
		9. Cash send (Absa)	Y/N	
		10. Stanbic IM Voucher	Y/N	
		11. Payment cards (e-Voucher etc.)	Y/N	
		12. Zonna	Y/N	
		13. Xapit	Y/N	
		14. Swift Cash	Y/N	
		15. Shoprite money transfer	Y/N	
		16. World remit	Y/N	
		17. Western Union	Y/N	
		18. MoneyGram	Y/N	
		19. Mukuru	Y/N	
		20. Other, specify	Y/N	
Q-145.	Which problems did you experience in the course of using digital financial services?	1. Delayed transmission of funds to intended recipient	Y/N	PLEASE TICK ALL THAT APPLY
		2. Non-receipt of transferred money by the recipient	Y/N	
		3. Non-receipt of notification	Y/N	
		4. Insufficient float (agent unable to send due to insufficient e-value)	Y/N	
		5. Lack of liquidity (agents with insufficient cash)	Y/N	
		6. Fraud	Y/N	
		7. Scam	Y/N	
		8. Limited access points or agents	Y/N	
		9. System failure	Y/N	

		10. Other, specify	Y/N	
Q-146.	Where did you report the problem(s) you experienced?	1. Bank of Zambia (BOZ)	Y/N	PLEASE TICK ALL THAT APPLY
		2. Zambia Information and Communications Technology Authority (ZICTA)	Y/N	
		3. Competition and Consumer Protection Commission (CCPC)	Y/N	
		4. Ministry of Technology and Science	Y/N	
		5. Service provider (Mobile Money Service Provider or Bank)	Y/N	
		6. Agent	Y/N	
		7. Police	Y/N	
		8. Nowhere (did not report)	Y/N	
		9. Other	Y/N	
Q-147.	Do you know of any institution that regulates digital financial services in Zambia?	Y/N		IF NO, GO TO Q-149
Q-148.	What is the name of the institution which regulates digital financial services in Zambia?			
Q-149.	Are you aware of any channels of redress for complaints related to digital financial services?	Y/N		IF NO, GO TO Q-152
Q-150.	Who is the first contact for complaints related to digital financial services?	1. Bank of Zambia (BOZ) 2. Zambia Information and Communications Technology Authority (ZICTA) 3. Competition and Consumer Protection Commission (CCPC) 4. Service provider (Mobile money provider or Bank) 5. Ministry of Technology and Science 6. Zambia Police 7. Other, specify		
Q-151.	If your digital financial service related complaint is not resolved by the first contact, where would you report it to next?	1. Bank of Zambia (BOZ) 2. Zambia Information and Communications Technology Authority (ZICTA) 3. Competition and Consumer Protection Commission (CCPC) 4. Service provider (Mobile Money Service Provider or Bank) 5. Ministry of Technology and Science 6. Zambia Police 7. Other, specify		
Q-152.	Have you ever received any DFS sensitization information?	Y/N		IF NO, GO to Q-155
Q-153.	Through what channels did you receive the information?	1. SMS	Y/N	PLEASE TICK ALL THAT APPLY
		2. Social media e.g. WhatsApp, Facebook etc.	Y/N	
		3. Printed material e.g. brochure, posters, newspaper etc.	Y/N	
		4. TV	Y/N	
		5. Radio	Y/N	
		6. Other, specify	Y/N	
Q-154.	What channel of communication would you mostly prefer receiving DFS sensitization?	1. TV 2. Radio 3. SMS 4. Social media e.g. WhatsApp, Facebook etc. 5. Printed material e.g. brochure, posters, newspaper etc.		

		6. Other, specify	
Q-155.	Are you able to use any Digital Financial Platform without any help?	Y/N	IF YES, GO TO Q-158
Q-156.	Who helps you to use the DFS platform?	1. An agent 2. A relative or friend 3. Security Personnel 4. Other customers	PLEASE TICK ALL THAT APPLY
Q-157.	What is your reason for not operating the DFS platform by yourself?	1. I cannot read or write 2. I find it difficult 3. I have a challenge with technology 4. Not user friendly to persons with disabilities (PwDs)	PLEASE TICK ALL THAT APPLY
Q-158.	Have you ever shared any of the following Personal Identification Numbers (PINs) with anyone?	1. Mobile Money PIN 2. Debit/Credit Card PIN 3. One-Time-Password (OTP) 4. Internet Banking Password 5. Mobile Banking Password	PLEASE TICK ALL THAT APPLY IF NO TO ALL, GO TO Q-161
Q-159.	Did you change the PIN after sharing it with another person?	Y/N	ASK IF YES TO ANY OPTION IN Q-158 IF YES, GO TO Q-161
Q-160.	What was the main reason for not changing the PIN after sharing it with another person?	1. I cannot read or write 2. Process for changing the PIN is complicated 3. I fear that if something goes wrong during PIN change, it is difficult to get the operator to help with a reset 4. I trust the other person 5. Other, specify	
Q-161.	Have you received money via digital financial services in the last 3 months?	Y/N	IF NO, GO TO Q-163
Q-162.	How were you notified the last time money was sent to you via digital financial services?	1. By service provider via SMS 2. I had to check at the nearest service centre/branch 3. By the sender 4. Check the balance on the account 5. By email 6. Other	PLEASE TICK ALL THAT APPLY
Q-163.	How do you rate the following attributes of quality of service for digital financial services?	1. Security 2. Timeliness (speed of transfers) 3. Consumer awareness 4. Reliability	1. Very Good 2. Good 3. Fair 4. Poor 5. Very poor

		5. Very poor	
	5. Complaint redress mechanism	1. Very Good 2. Good 3. Fair 4. Poor 5. Very poor	
Q-164.	In your opinion, what is the main area of improvement in provision of DFS?	1. Speed of transfers 2. Reliability of service in terms of receiving of funds 3. Better service at receiving points 4. Increase in the number of pay points for mobile payment services 5. Complaint resolution 6. Availability of cash 7. Network outages 8. Float availability 9. Prosecution of scammers through fast track courts 10. Security of platforms to avoid scams 11. Increased awareness on fraud 12. Increased agent training 13. Other, specify	
Q-165.	Which mode do you use more often for financial transactions?	1. Digital financial transactions 2. Cash/Cheque transactions 3. Over-the-counter banking services	
Q-166.	In opinion, which mode is more efficient?	1. Digital financial transactions 2. Cash/Cheque transactions	
Q-167.	Do you feel secure when transacting (sending/receiving money) using digital financial services?	Y/N	IF YES, GO TO Q-170
Q-168.	What is your main security concern?	1. Losing money 2. Potential exposure of personal information to crooked people 3. Lack of trust for service providers 4. Legitimacy of certain services is questionable 5. Other, specify	
Q-169.	Have you experienced any of the following DFS-based frauds?	1. Lost money 2. Received a call from scammers 3. Received an unsolicited SMS from scammers 4. SIM swapped 5. Received counterfeit money 6. Other, specify	Y/N Y/N Y/N Y/N Y/N Y/N PLEASE TICK ALL THAT APPLY
Q-170.	How would you rate the service charge of your frequently used digital financial service provider?	1. Expensive 2. Affordable 3. Cheap	
Q-171.	How would you rate the overall service delivery for your frequently used digital financial service provider?	1. Poor 2. Fair 3. Good	
Q-172.	Which of the following right(s) are you aware of with respect to the use of digital financial services?	1. Right to full product information 2. Privacy and protection of personal data 3. Right to redress 4. Right to notification of product alterations 5. Right to complain	Y/N Y/N Y/N Y/N Y/N PLEASE TICK ALL THAT APPLY IF NO TO ALL, GO TO Q-174

		6. Right to a response to your complaint	Y/N	
		7. Full disclosure of risks associated with the service	Y/N	
		8. Other, specify	Y/N	
Q-173.	Through which mode did you become aware about the existence of these right(s)?	1. Service provider	Y/N	PLEASE TICK ALL THAT APPLY
		2. Website	Y/N	
		3. Social media	Y/N	
		4. Regulator	Y/N	
		5. Print or electronic media	Y/N	
		6. Third Party	Y/N	
		7. Other, specify	Y/N	
Q-174.	Are you aware about money laundering and terrorist financing?	Y/N		IF NO, GO TO Q-178
Q-175.	Are you aware that engaging in money laundering and terrorist financing is illegal?	Y/N		
Q-176.	Are you aware that money laundering can be done through digital financial services?	Y/N		
Q-177.	Have you ever received an awareness message on money laundering and terrorist financing from your financial service provider?	Y/N		
Q-178.	Do you have a Tax Payer Identification Number (TPIN)	Y/N		
Q-179.	Do you have any investments in cryptocurrency or other digital currencies?	Y/N		
Q-180.	Are you aware of the risk of investing in cryptocurrencies?	Y/N		IF NO, GO TO Q-182
Q-181.	Which of the following risks are you aware of?	1. Its unregulated	Y/N	PLEASE TICK ALL THAT APPLY
		2. Risks associated with hacking	Y/N	
		3. Volatility	Y/N	
		4. Erroneous transactions	Y/N	
		5. cannot be reversed	Y/N	
		6. Fake investment scams	Y/N	
		7. Money laundering	Y/N	
		8. Other	Y/N	
Q-182.	What is your monthly income from all sources?	ZMW		

END OF THE QUESTIONNAIRE

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