National IT Survey 2017/18 Report

Dissemination Workshop at UBOS Auditorium

March 2018

OUTLINE

- Background
- Desk research
- Survey overview
- Findings from Ministries, Departments and Agencies (MDAs)
- Findings from Local Governments
- Findings from Households and Individuals
- Recommendations

OBJECTIVES OF STUDY

- Establish status on availability, access and usage, affordability and satisfaction of IT infrastructure, equipment and services among government MDAs, Local Governments, as well as citizens
- Determine level of awareness and satisfaction of IT services among citizens
- Collect data for international benchmarking and for tracking progress towards achieving set development targets e.g. SDGs, WSIS targets
- Identify existing gaps on access and usage of IT systems, applications, infrastructure and services in Uganda and propose policy recommendations to address them

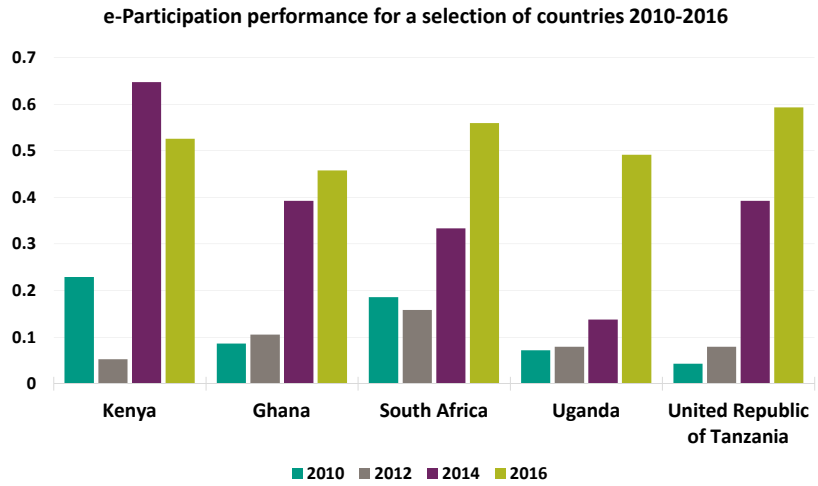
STUDY METHODOLOGY

- Used mixture of qualitative and quantitative approaches to facilitate triangulation of findings and help enrich outcomes
- Desk research to review a variety of literature and datasets in order to extract key issues relating to IT access and usage
- Key informant interviews and focus group discussions with selected stakeholders
- Survey designed to collect data from MDAs, Local Governments and citizens across the country

DESK RESEARCH

- Reviewed existing policy, regulatory and institutional framework to determine how this supports or hinders access and use of ICT by both government and citizens
- Benchmarked Uganda's performance on global ICT indices to a selection of neighbouring or similar countries
- Reviewed existing similar studies to establish issues and challenges related to access, perception and use of ICT
- All this informed downstream activities like the design of research instruments

E-PARTICIPATION INDEX



- In 2016, 91/193
- In 2014, 154
- In 2012, 109
- In 2010, 117
- Still lags behind compared to her peers

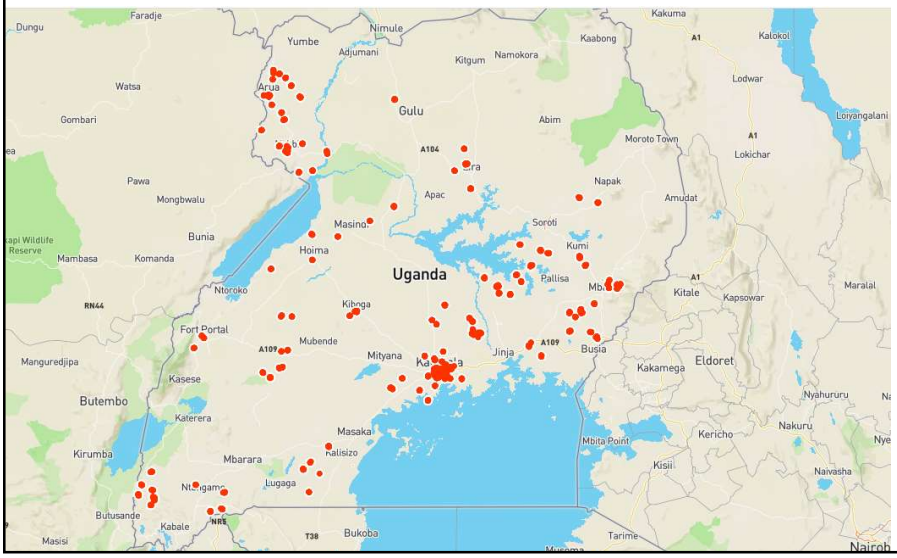
SURVEY DESIGN

- Survey was designed to be nationally representative
- Designed to provide estimates for the whole country as well as for urban and rural areas
- Sample frame was the 2014 list of enumeration areas from the National Population & Housing Census
- Three questionnaires targeting MDAs, Local Governments as well as households and individuals
- Two-stage stratified sampling design for households and individuals

SURVEY OVERVIEW

Characteristic	MDAs	Local Governments	Citizens
Domains	1 = National		
Tabulation Groups	National level	National level	Urban, Rural
Sampling	Stratified, multi-stage random sampling		
Oversampling	N/A	Urban 60%, Rural 40%	
Clustering	N/A	Enumeration Areas (EA) National Census	
None response	No replacement	No replacement	Random substitution
Sample frame	All MDAs	Census sample from UBOS	
Method	Interviews on android tablets using ODK Collect		
Timelines	Data collected between October and December 2017		
Target sample size	109	33	2,400
Actual sample size	77	28	2,748

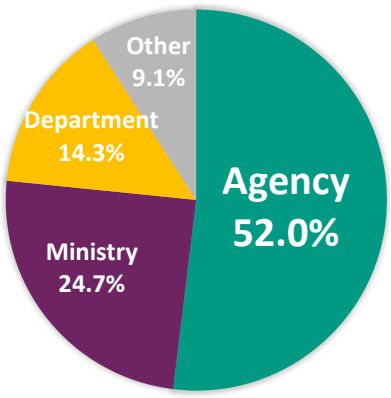
SURVEY ORGANISATION



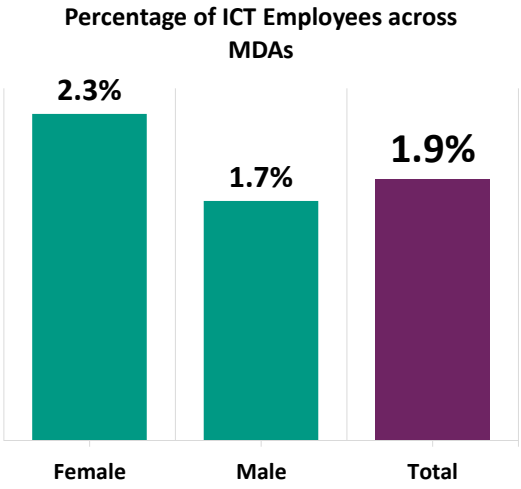
- Five operational zones based on language and logistical efficiency
- Five field teams (5 enumerators + 1 supervisor)
- Sample data weighted to represent national population

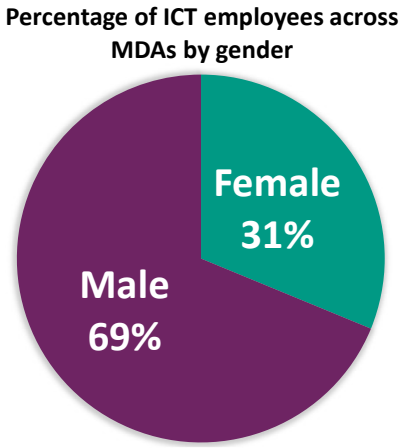
FINDINGS FROM MINISTRIES, DEPARTMENTS AND AGENCIES (MDAS)

What type of institution is your MDA?

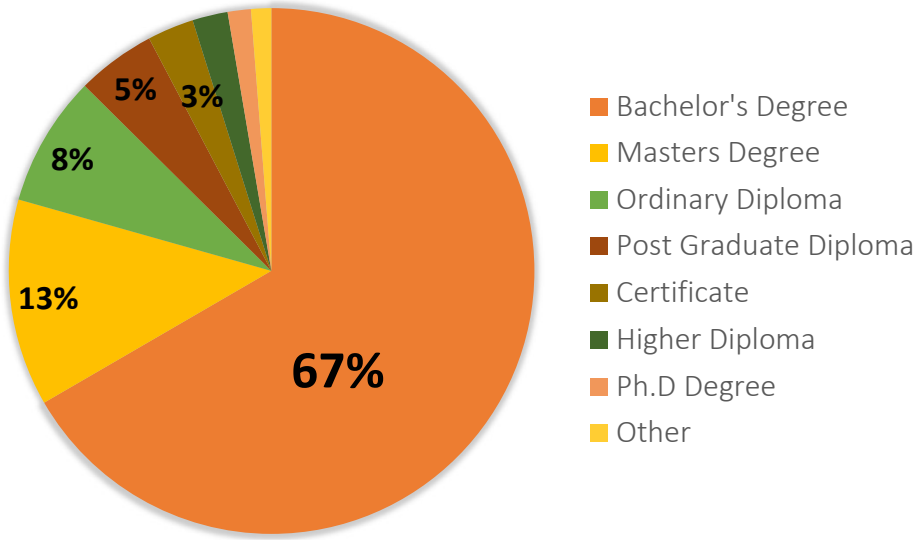


ICT Workforce



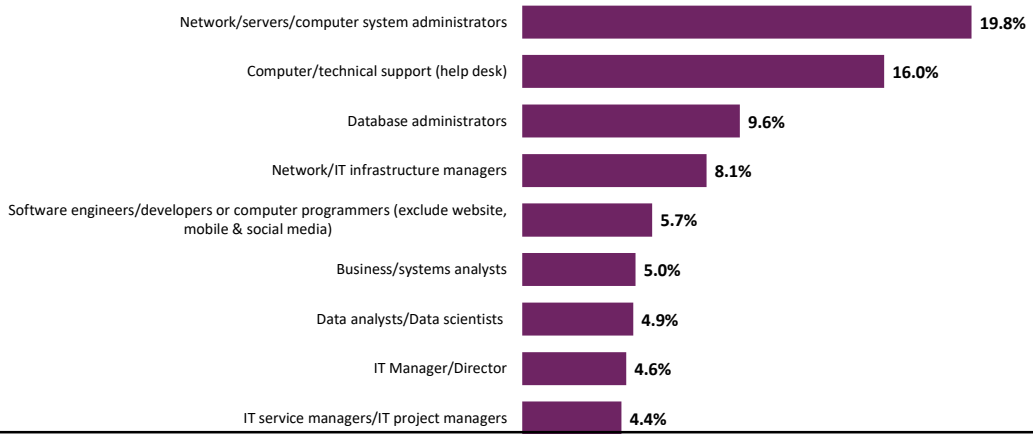


Qualifications of ICT staff

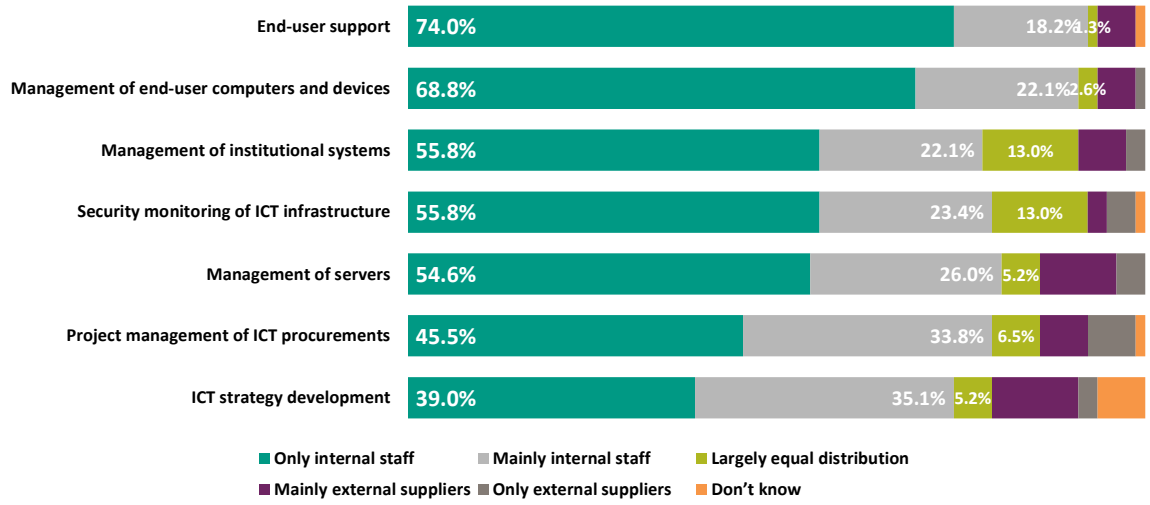


ICT staff specialisations

In terms of specialisation, how many ICT personnel were in the following categories as at June 30 2017?

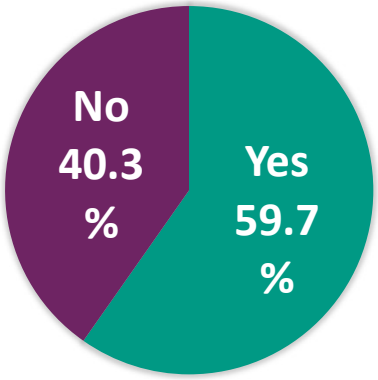


Degree of outsourcing with MDAs

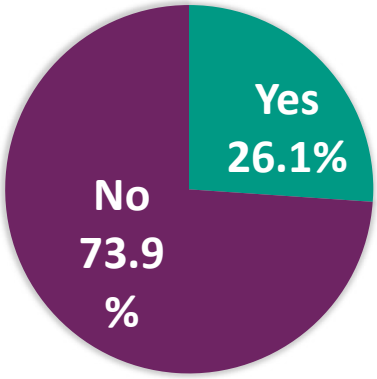


% of MDAs that offer ICT training to staff

Does your institution offer internal ICT training programs to employees in the use of different applications?

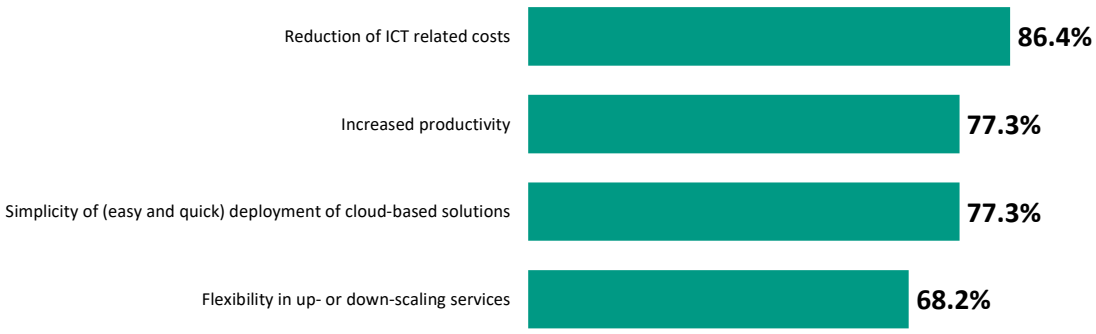


Does your Institution own a dedicated training lab/space where you conduct ICT training?

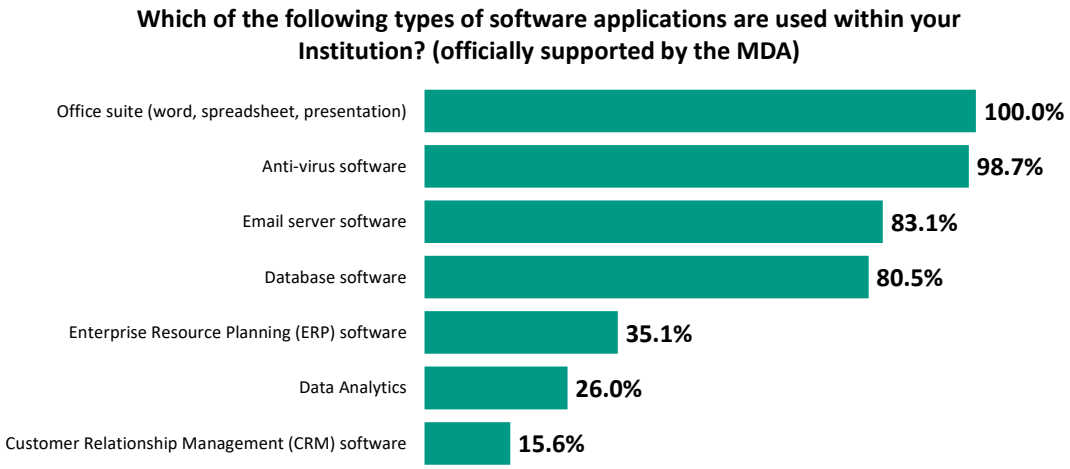


Benefits of cloud computing among MDAs

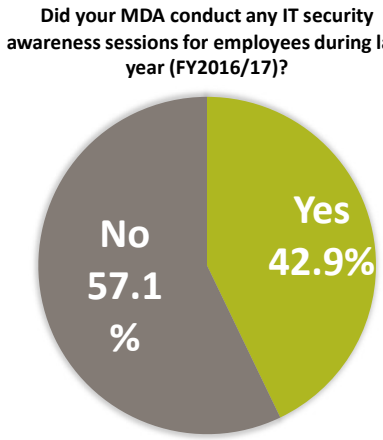
What do you consider as some of the benefits from using cloud computing services? (multiple-select, ranked)

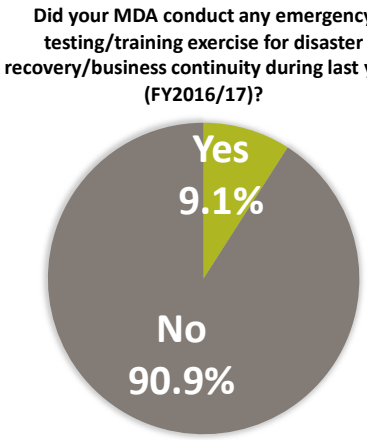


Software in MDAs

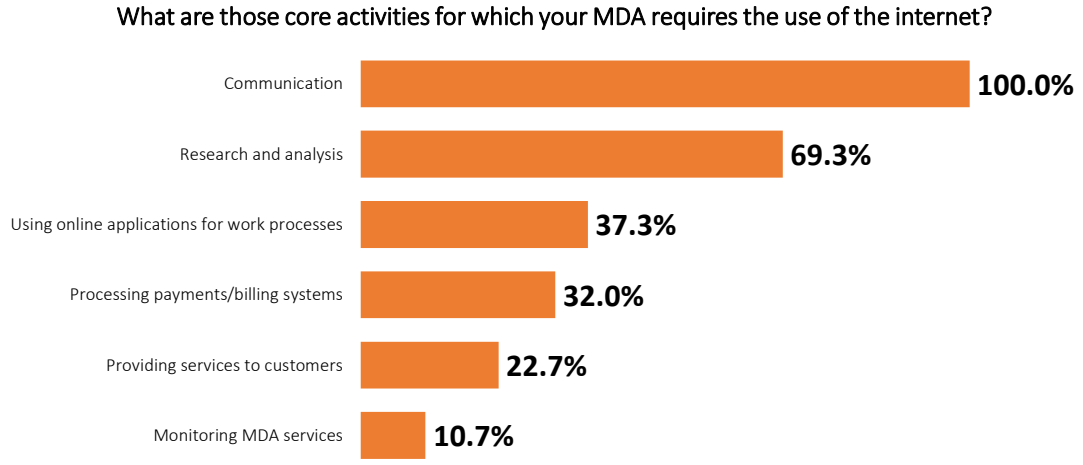


Awareness of IT security & disaster recovery

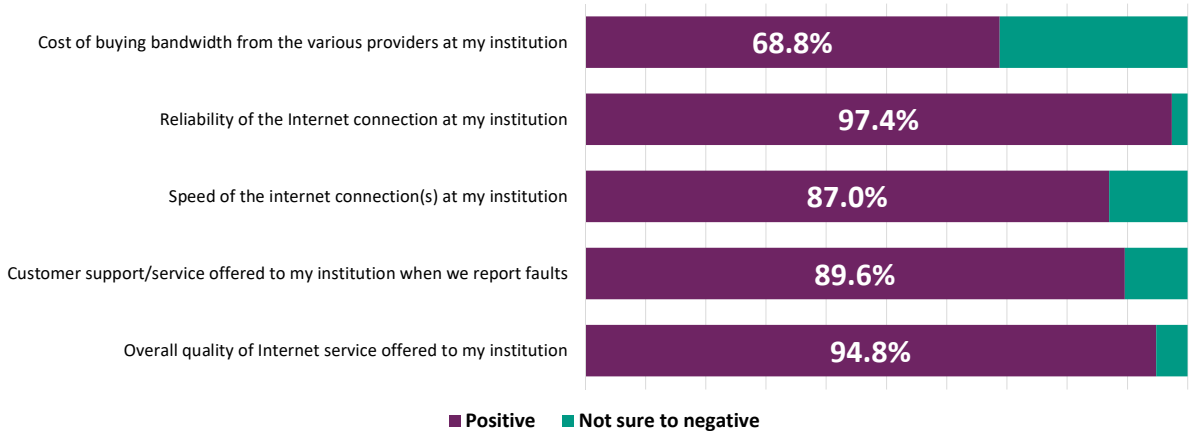




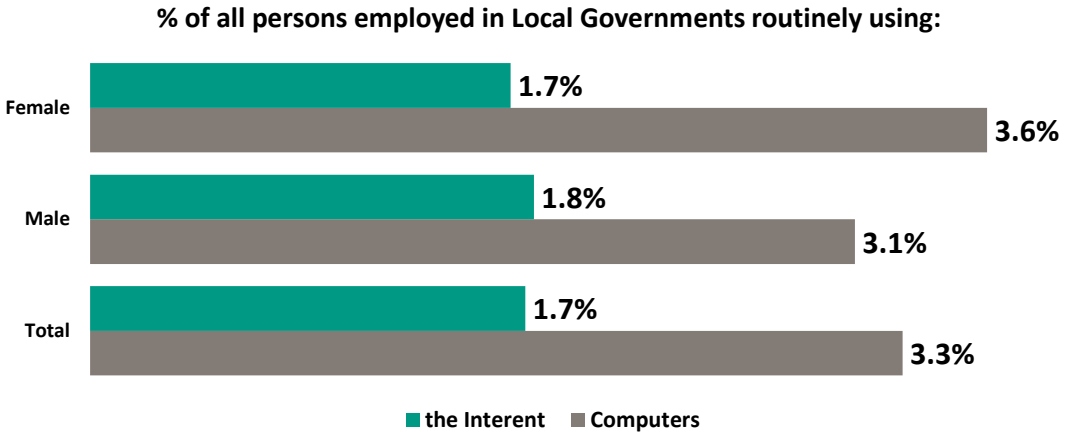
Core activities for which MDAs use Internet



MDA user experience with Internet



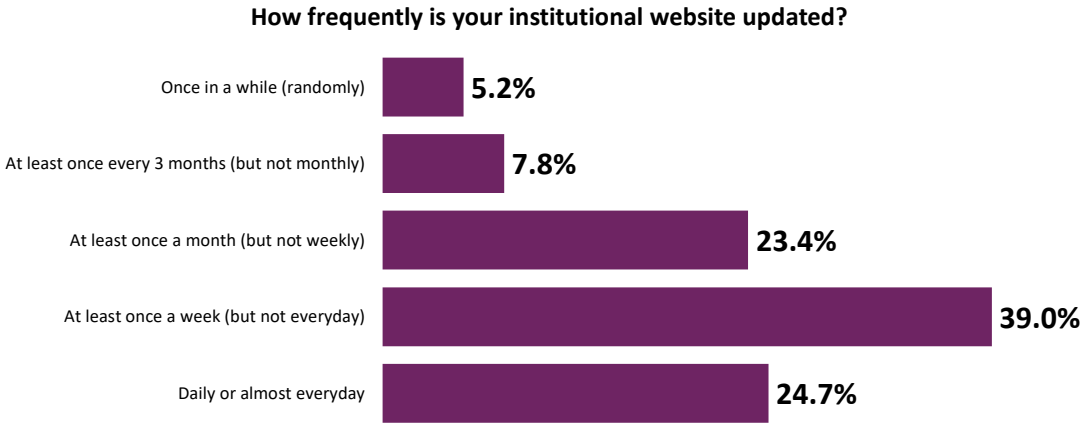
Usage of computers and the Internet



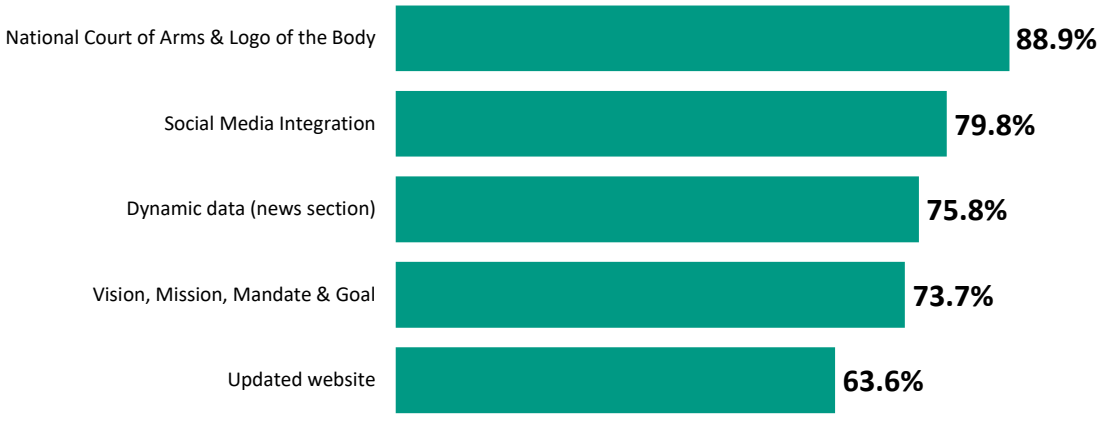
Ownership of IT channels

% of MDAs with:	
Institutional blog	**10.4%**
An Intranet	**43.6%**
IT Service/Help Desk	**81.8%**
Local Area Network	**96.1%**
Institutional Website	**100%**

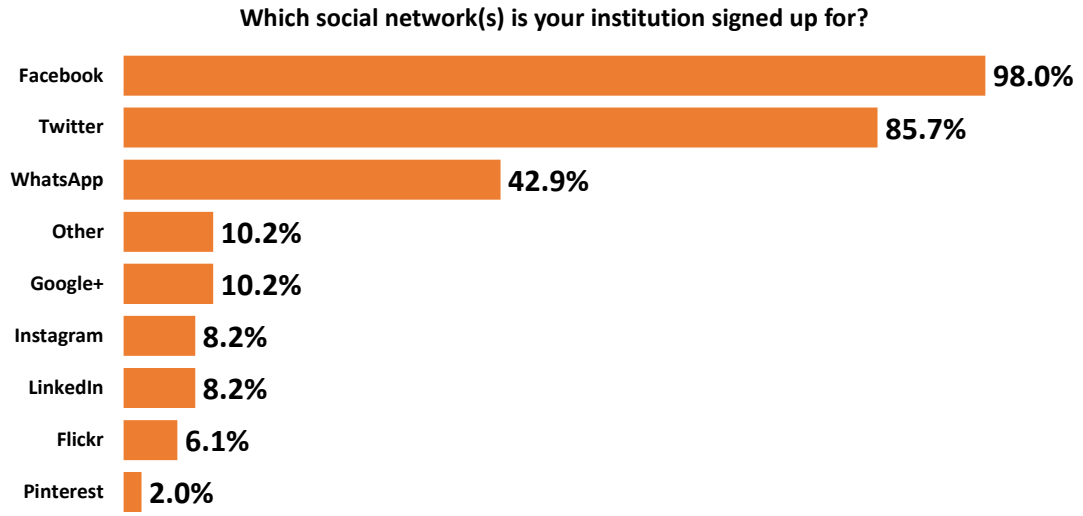
Frequency of MDA website update



MDA website compliance with e-government regulations



MDAs and social media



Computing device penetration in MDAs

100%

Of all MDAs owned at least one desktop computer and one laptop computer

49.4%

Of all MDAs owned at least one mobile phone and/or Personal Digital Assistant (PDA)

22.1%

Of all MDAs owned Video conferencing equipment

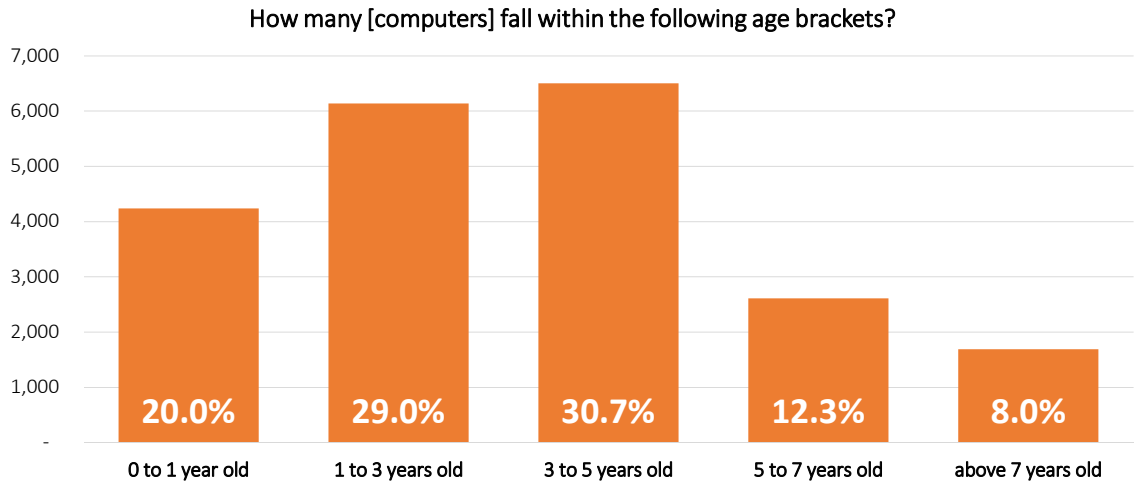
92.2%

Of all MDAs owned at least one server computer

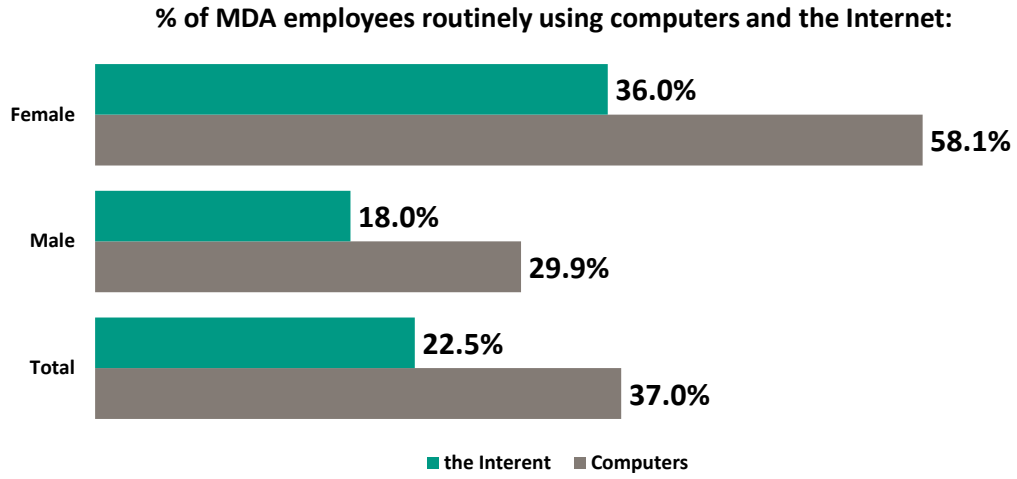
37.7%

Of all MDAs owned at least one VOIP phone

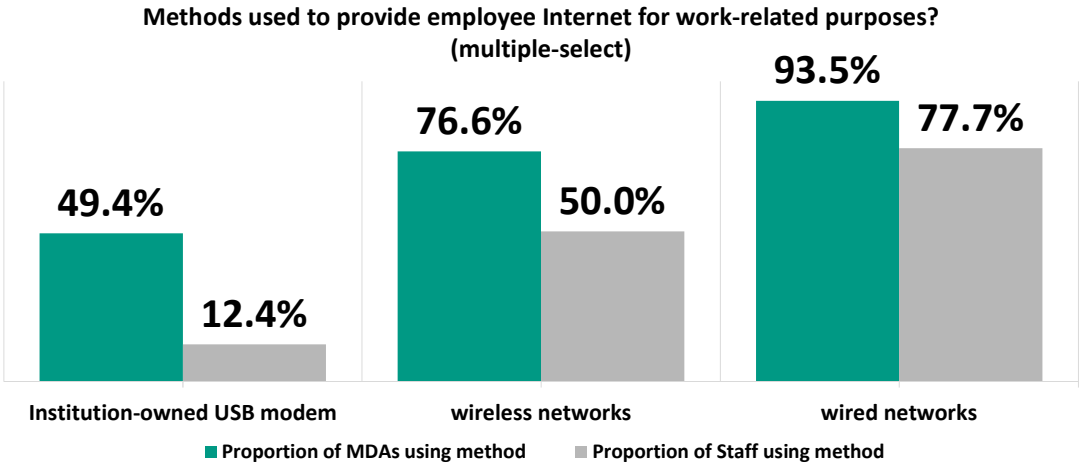
Number and % of MDA computers by age



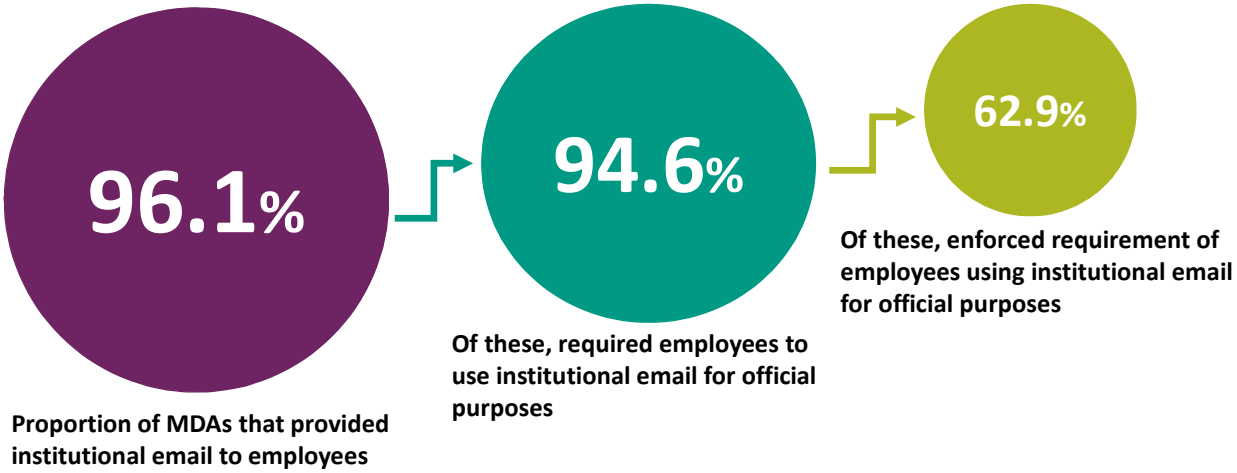
MDA usage of computers and the Internet



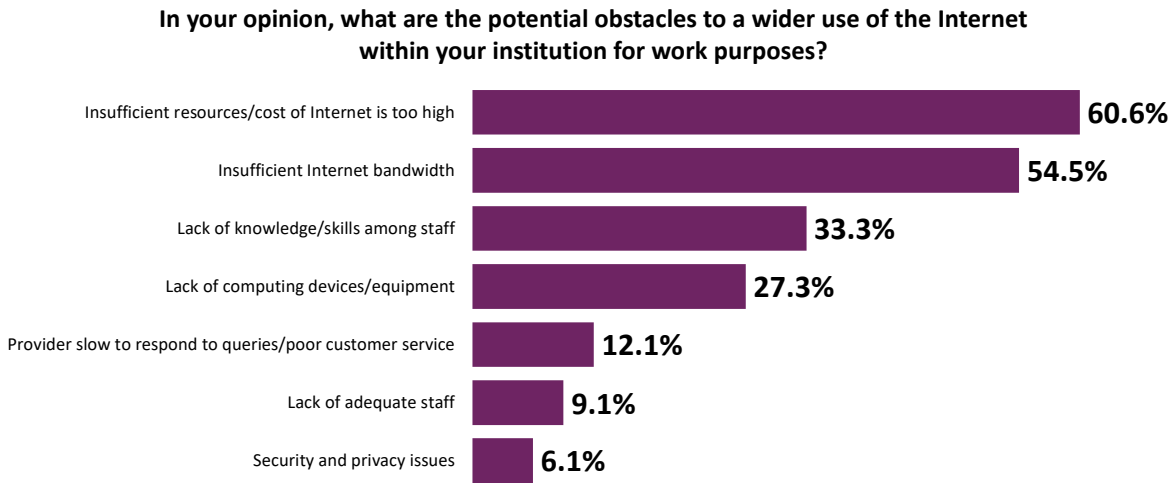
Methods MDAs use to provide staff Internet



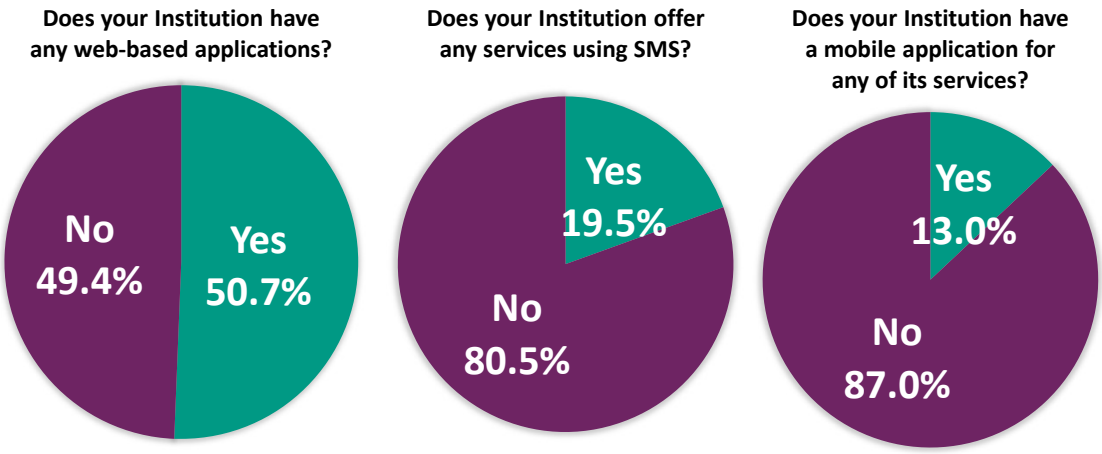
MDA provision and use of institutional email



Obstacles to wider MDA use of the Internet

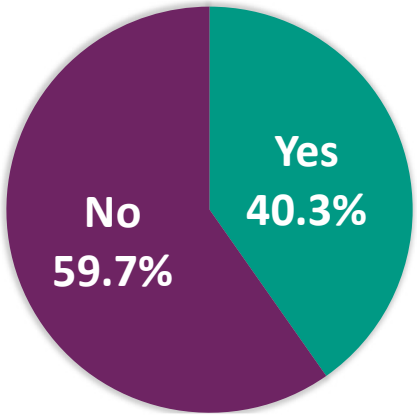


E-government services

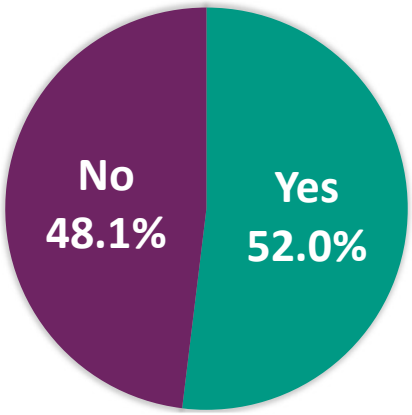


Databases and Open data

Does your Institution maintain any database for public data/information?

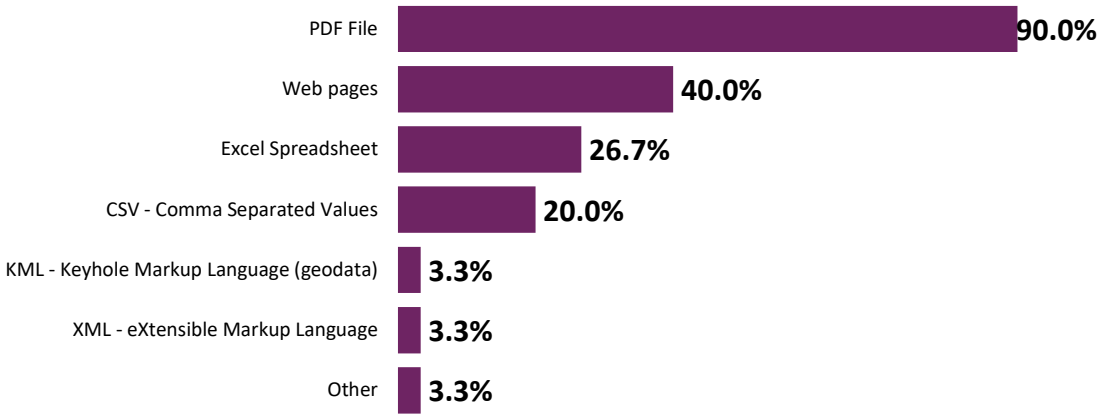


Does your Institution release any data to the public as open data?

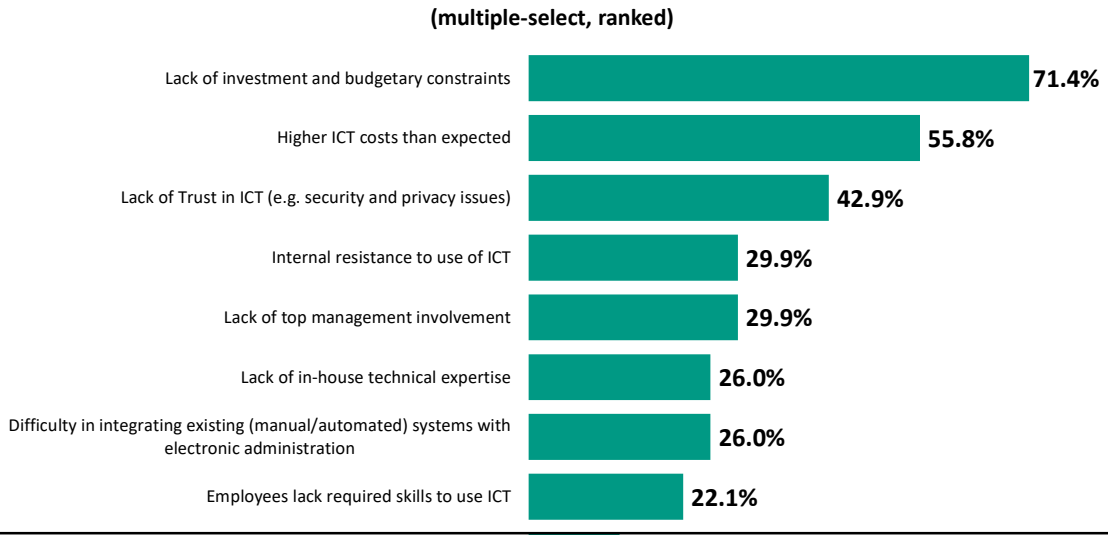


MDAs use different open data file formats

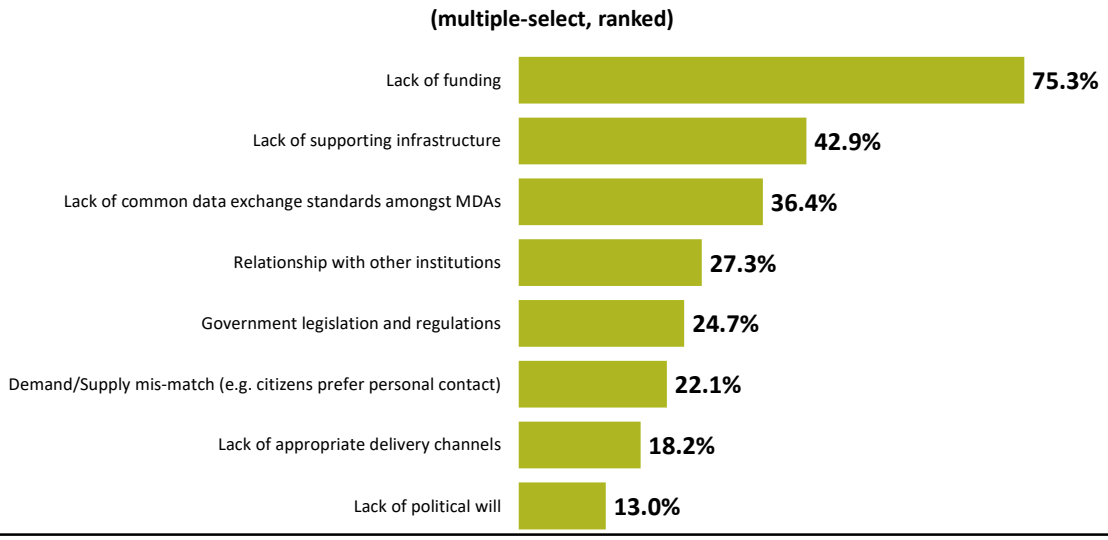
In what formats does your Institution release open data? (multiple-select, ranked)



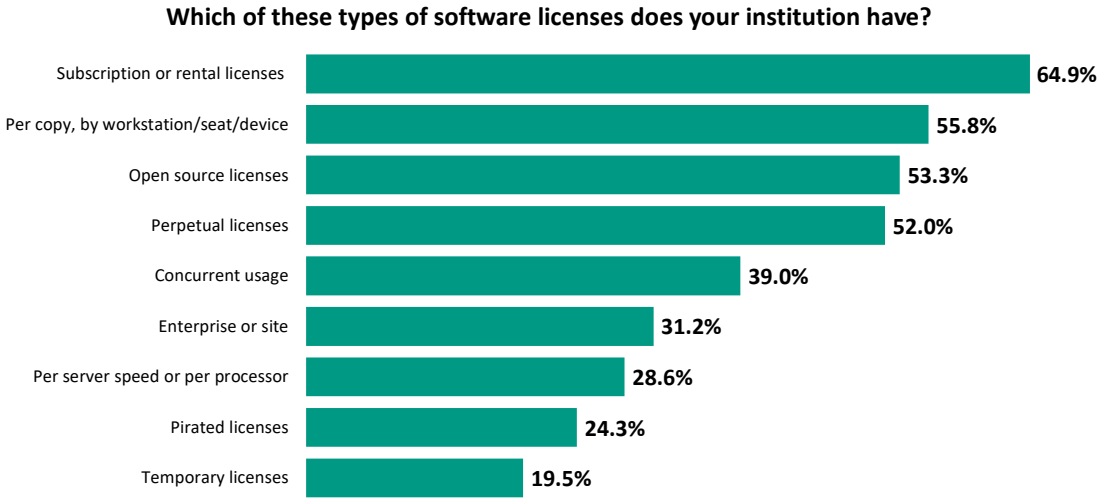
Internal challenges MDAs face in implementing e-government initiatives



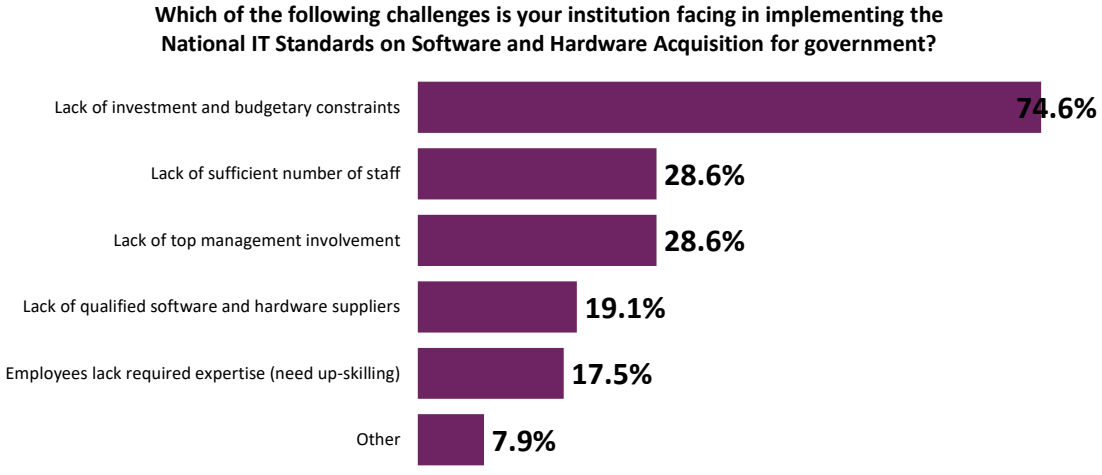
External challenges MDAs face in implementing e-government initiatives



Types of software licenses across MDAs



MDA challenges in implementing National IT Standards on Software and Hardware Acquisition



ICT training for MDA staff

59.7%

Of all MDAs, offer internal ICT training programs to employees in the use of different applications

42.9%

Of all MDAs, conducted any IT security awareness sessions for employees during FY2016/17

26.1%

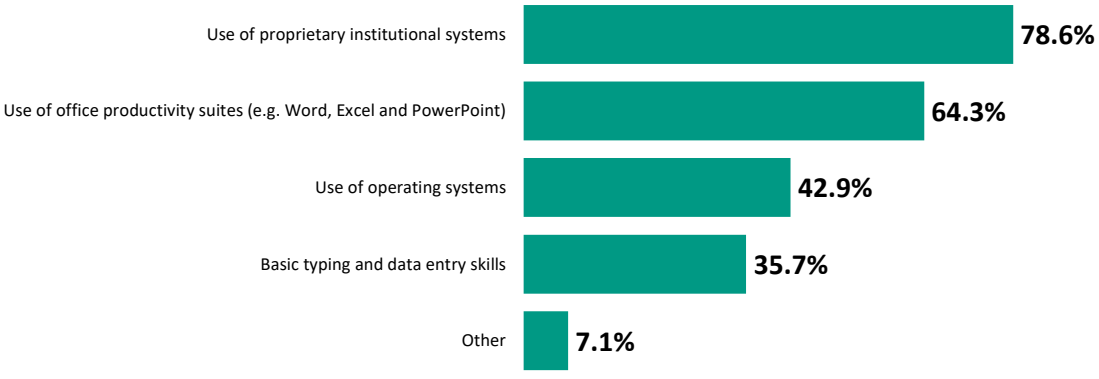
Of MDAs that offer internal staff training, own a dedicated training lab/space where to conduct ICT training?

9.1%

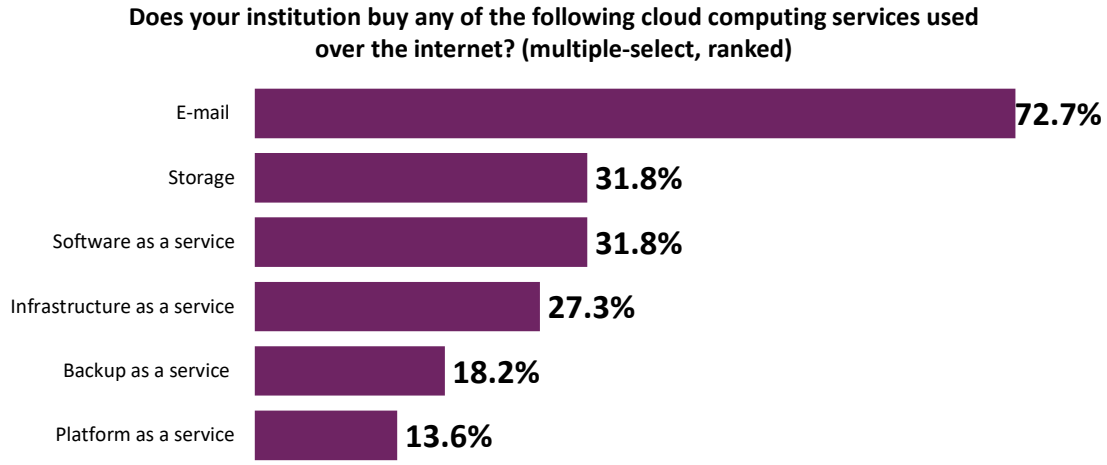
Of all MDAs, conducted any emergency testing/ training exercise for disaster recovery/business continuity during last year FY2016/17

Type of ICT training offered by MDAs

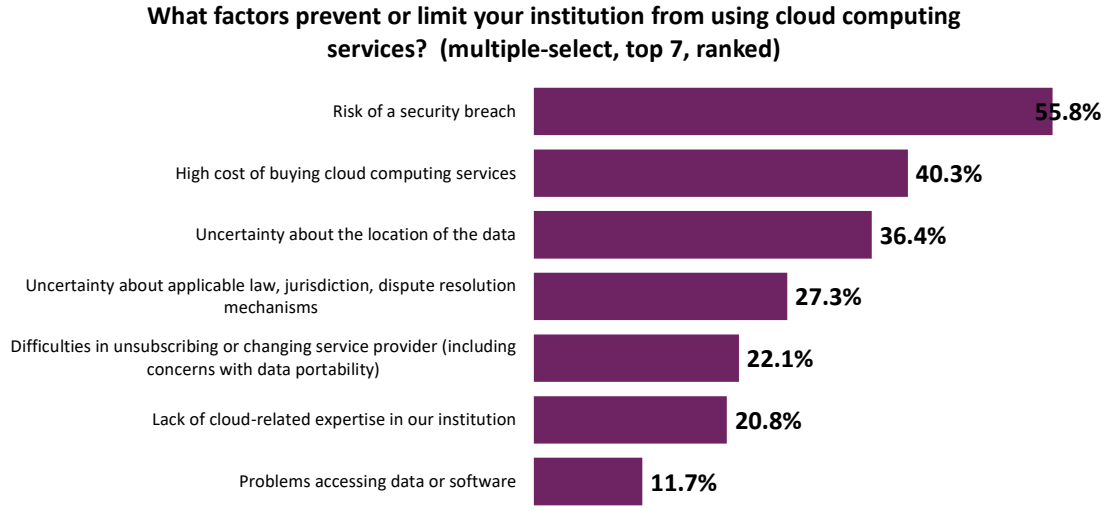
What types of ICT training programs does your institution offer to employees?



Cloud computing services bought by MDAs

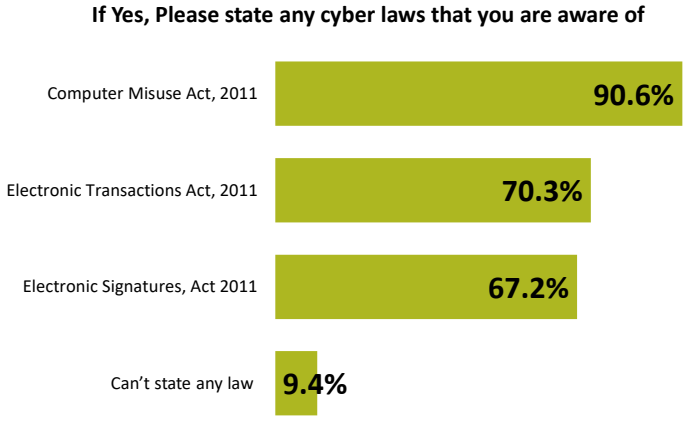


Barriers to MDA use of cloud-computing

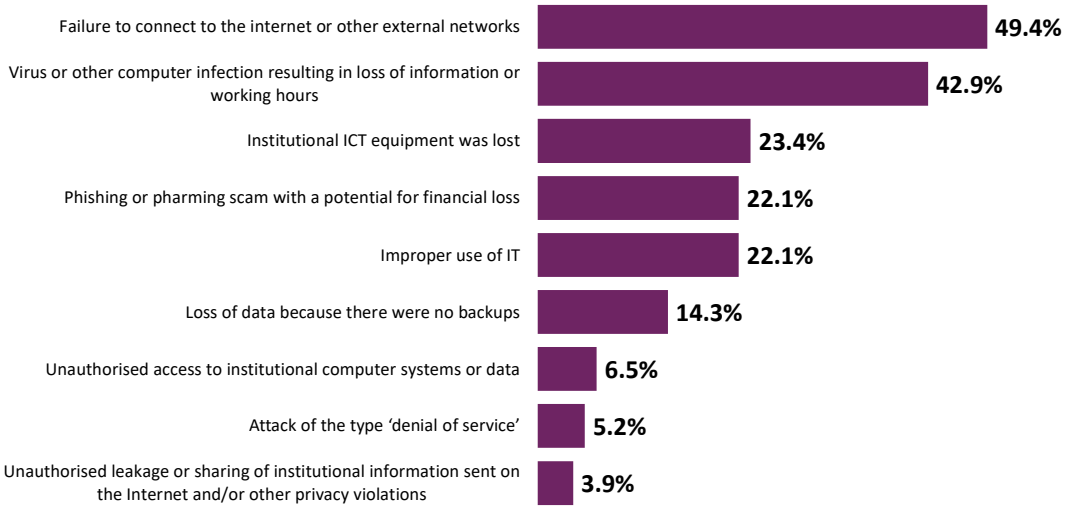


Proportion of MDAs aware of Cyber laws

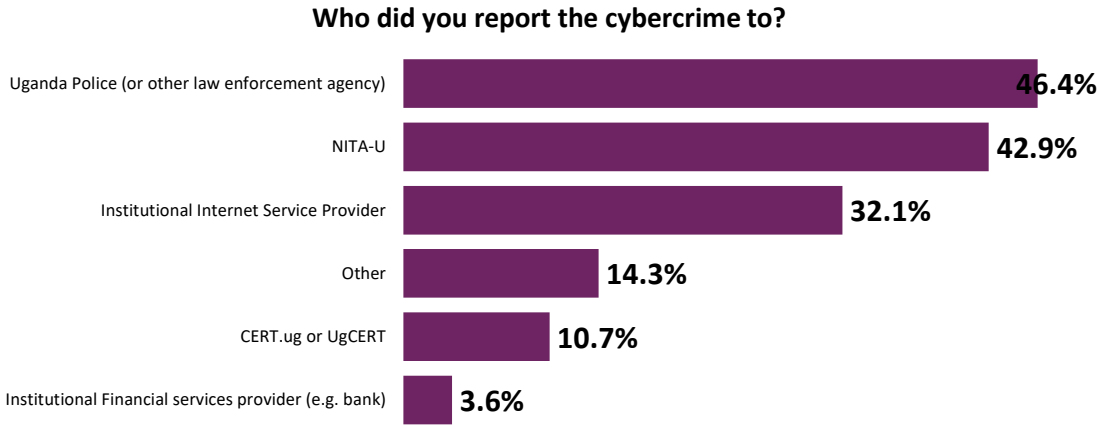
Proportion of MDAs aware of any Ugandan laws that govern electronic communications and transactions



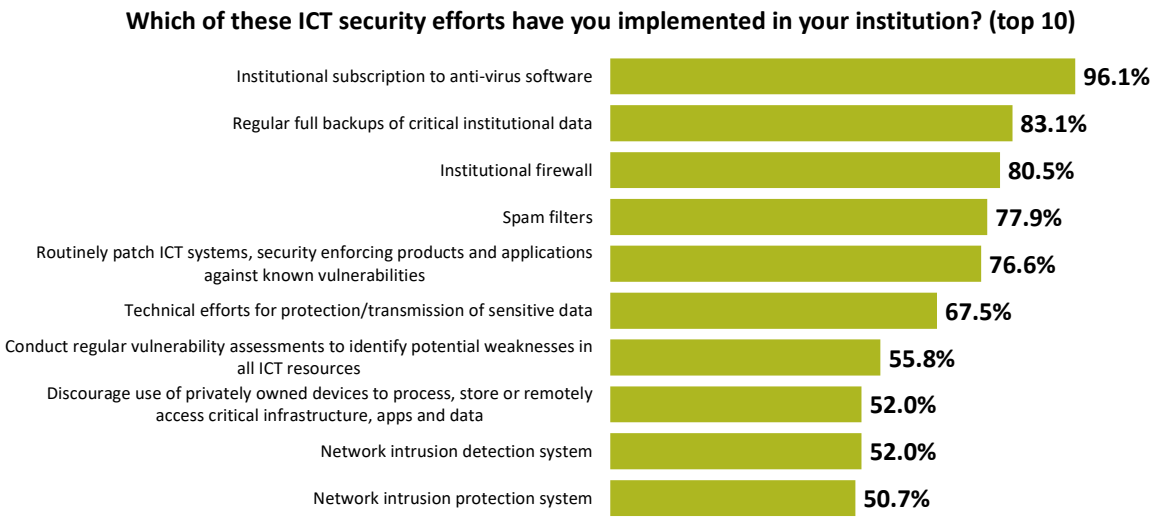
MDA security incidents in FY 2016/17



% of MDAs that reported cyber crimes

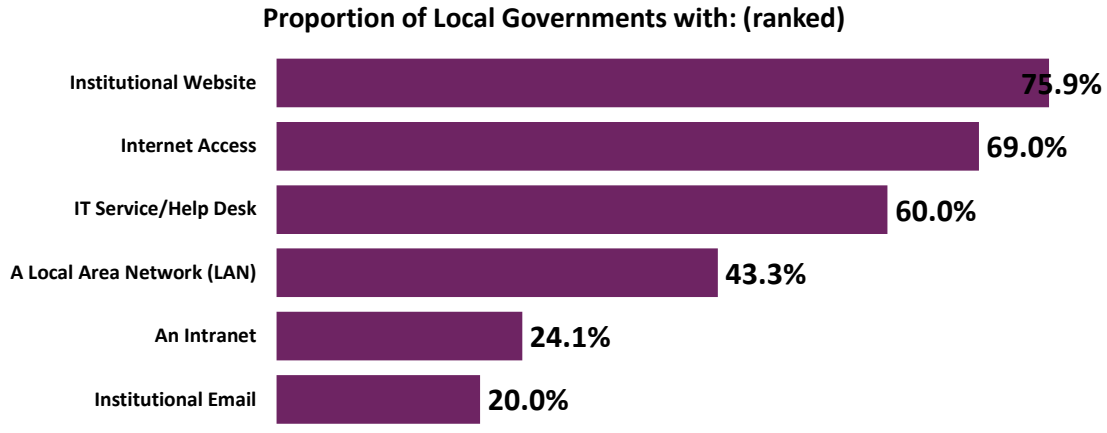


IT security measures implemented by MDAs

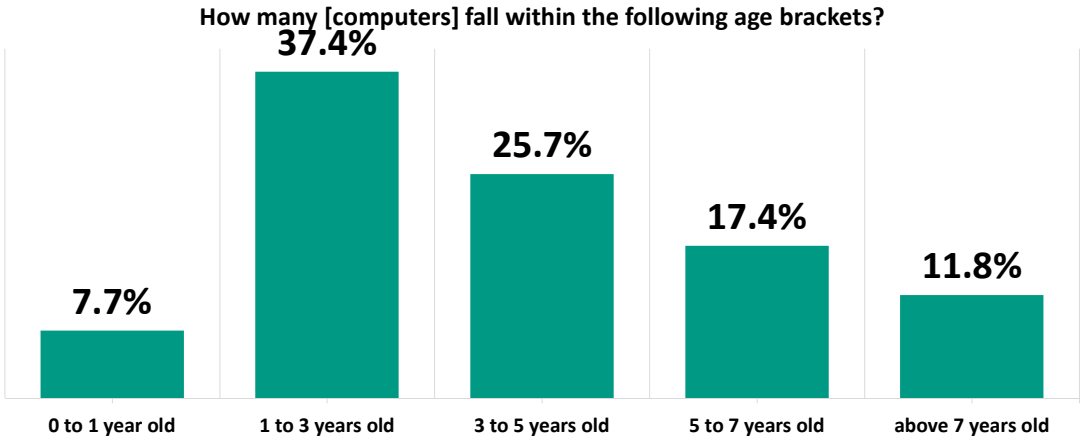


FINDINGS FROM LOCAL GOVERNMENTS

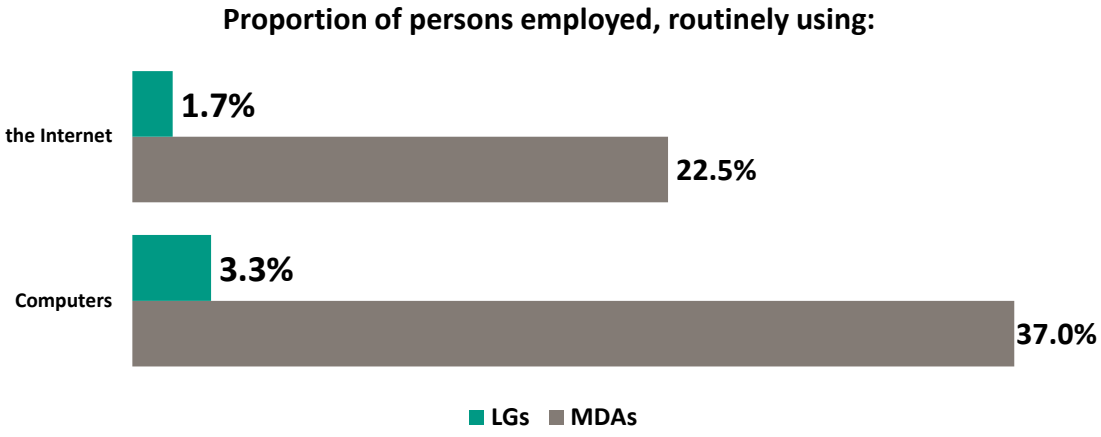
Overview of Local Governments



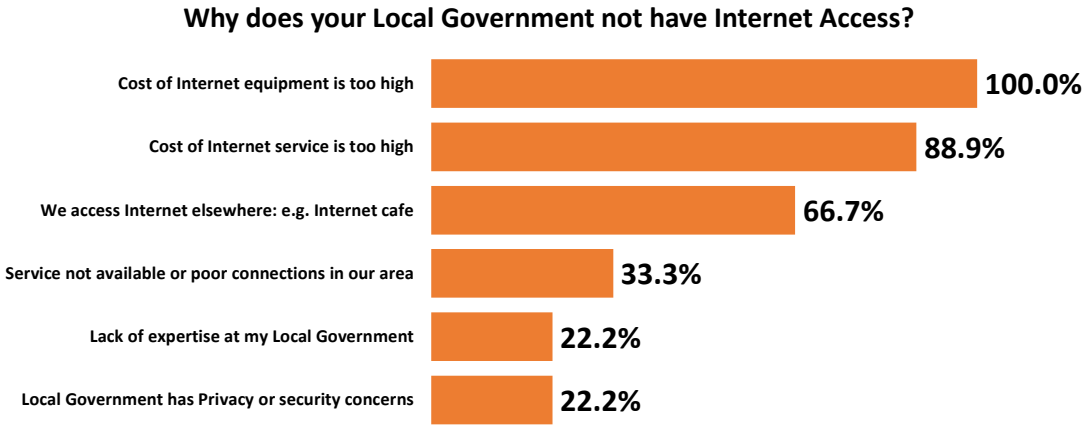
% of computers by age across LGAs



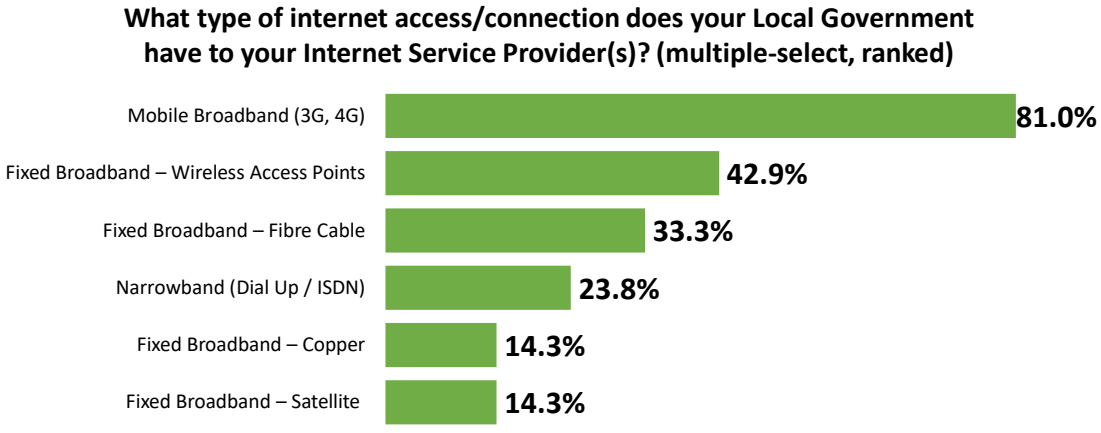
Computer and Internet use, LGAs vs. MDAs



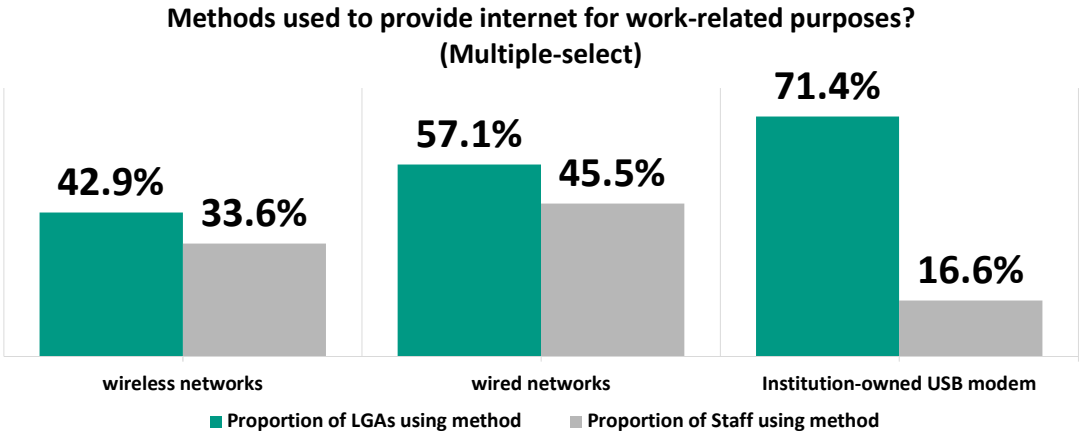
Reasons why LGAs don't have Internet access



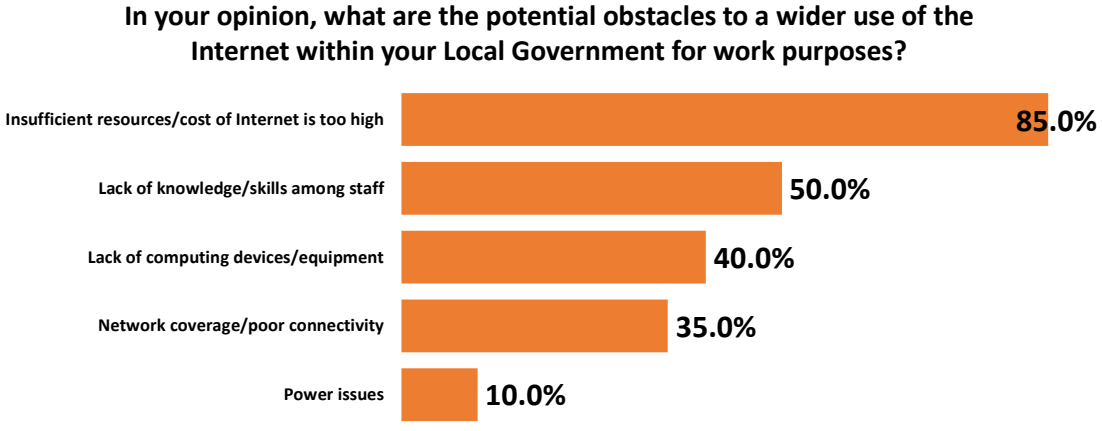
How do LGA connect to the Internet?



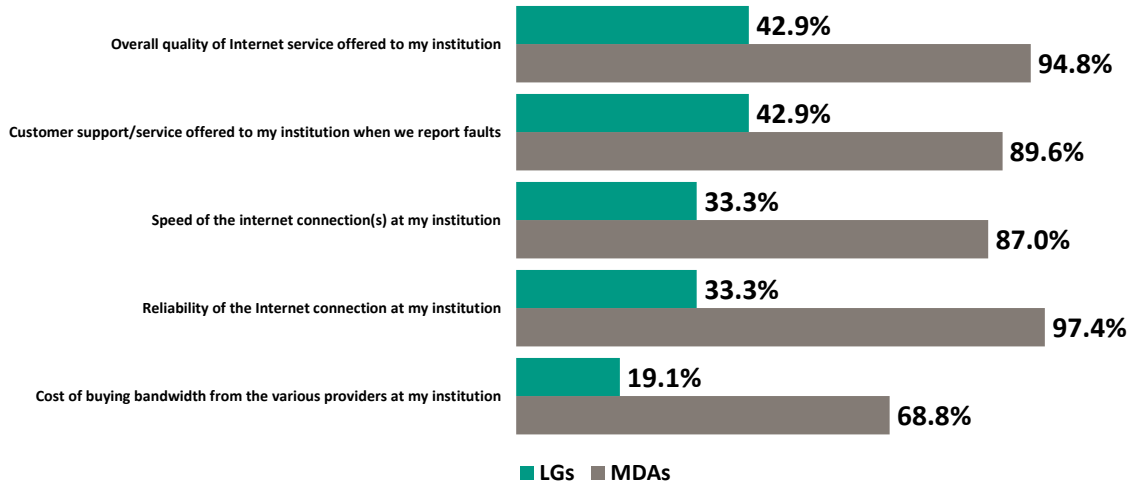
How do LGAs provide Internet to staff?



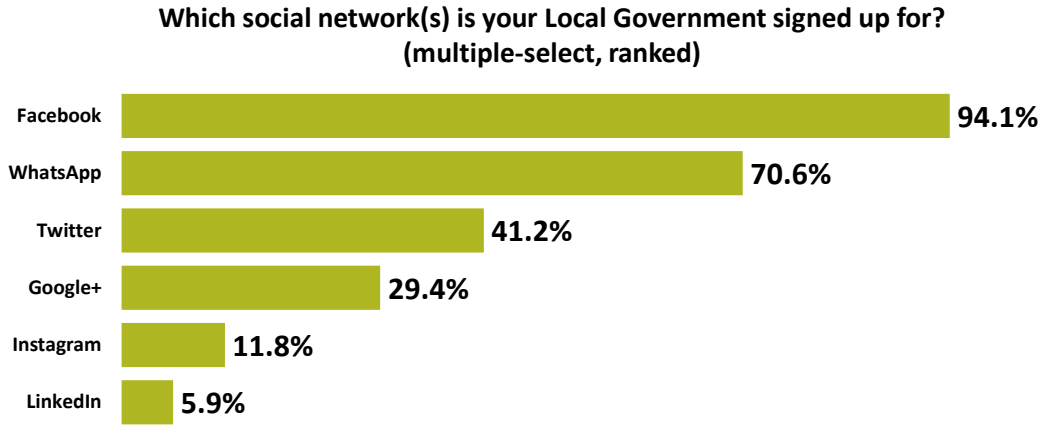
Obstacles to wider Internet use by LGAs



Perceptions on Internet service, LGAs vs. MDAs

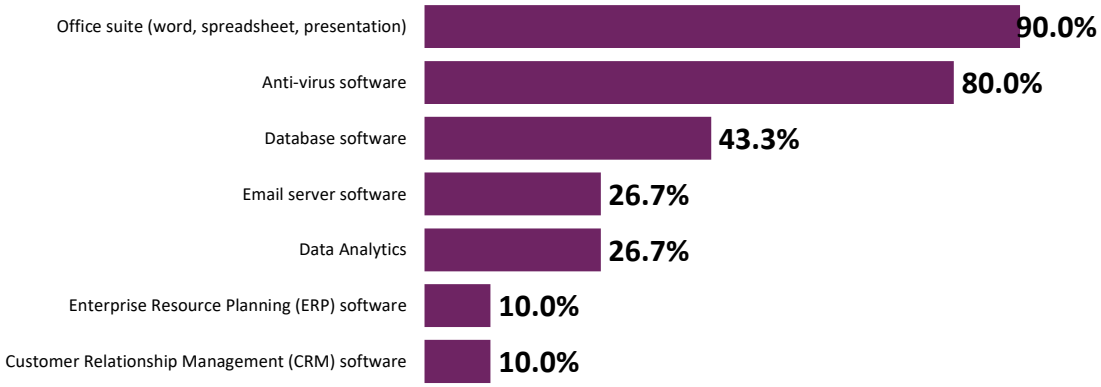


LGAs and social media

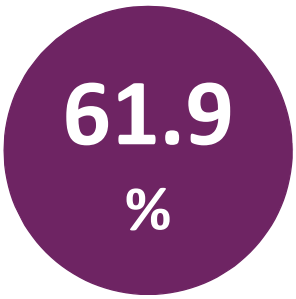


Software in LGAs

Which of the following types of software applications are used within your Local Government (officially supported)? (ranked)

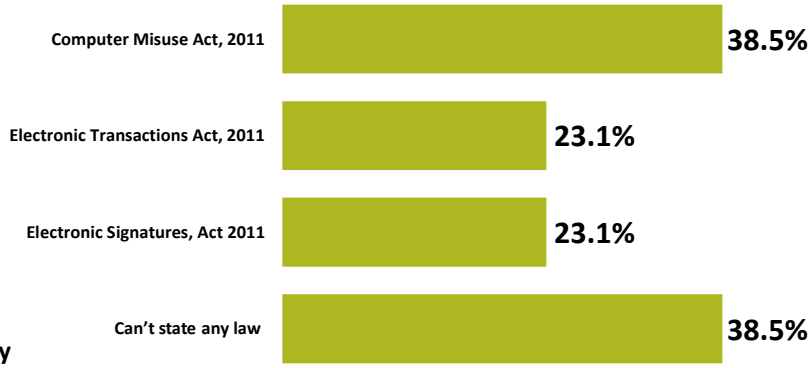


Proportion of LGAs aware of cyber laws

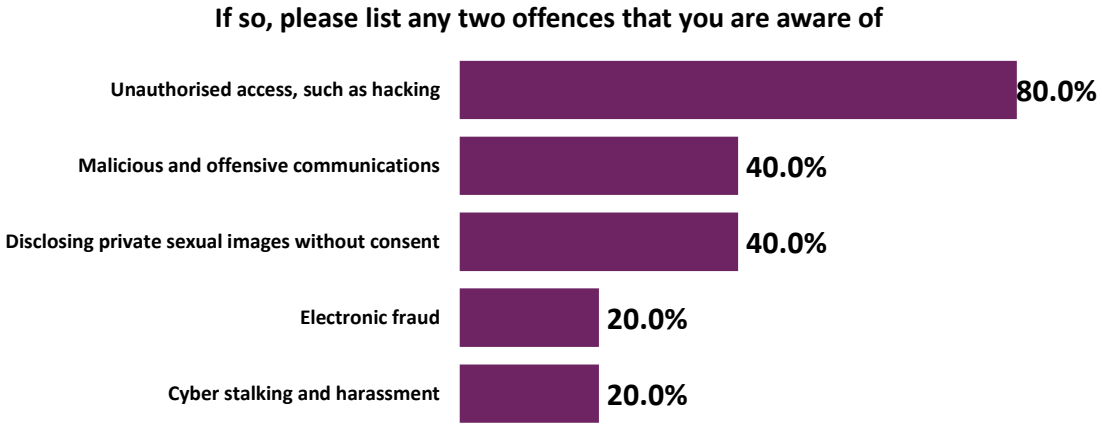


Proportion of LGAs aware of any Ugandan laws that govern electronic communications and transactions

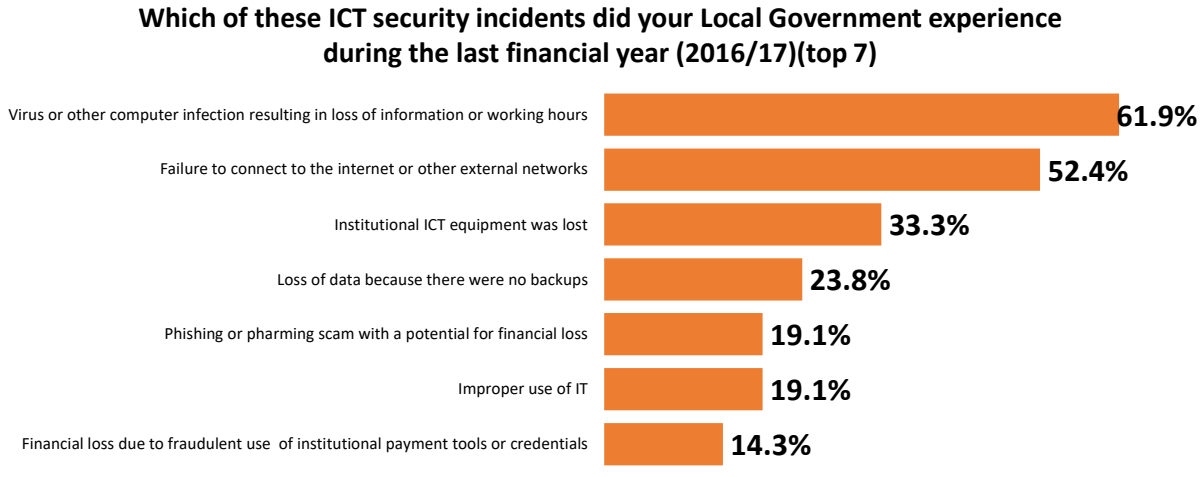
If Yes, Please state any cyber laws that you are aware of



LGA awareness of cyber offences created by Computer Misuse Act

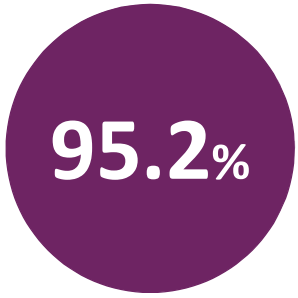


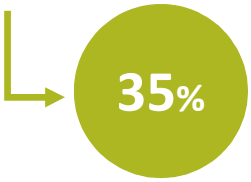
LGA security incidents in FY 2016/17



Proportion of LGAs aware of cyber laws

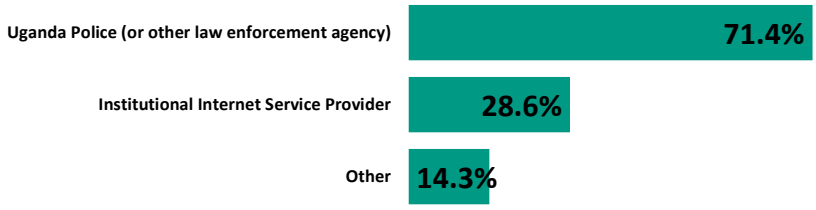
% of LGs that experienced a security incident during last FY 2016/17





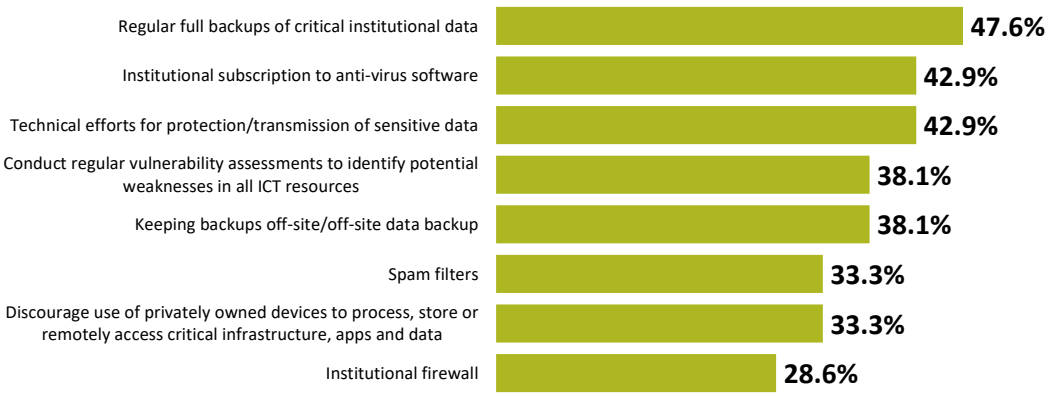
Of these, had reported any cybercrime(s) to anybody?

Who did you report the cybercrime to? (multiple-select, ranked)



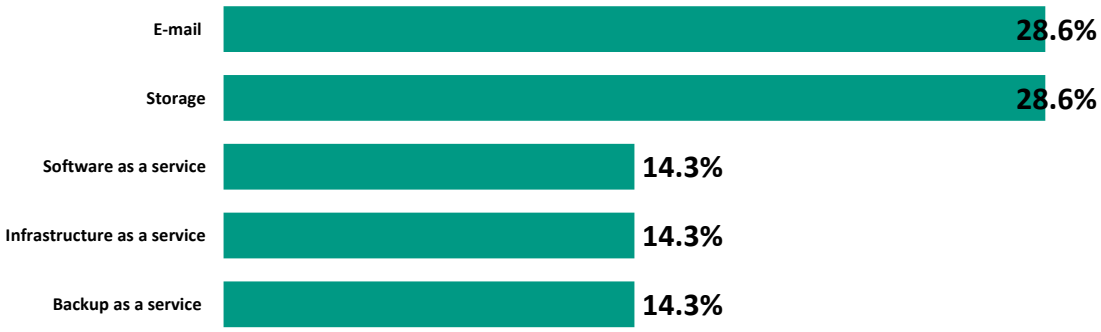
IT security measures implemented by LGAs

Which of these ICT security efforts have you implemented in your LGA? (top 8)



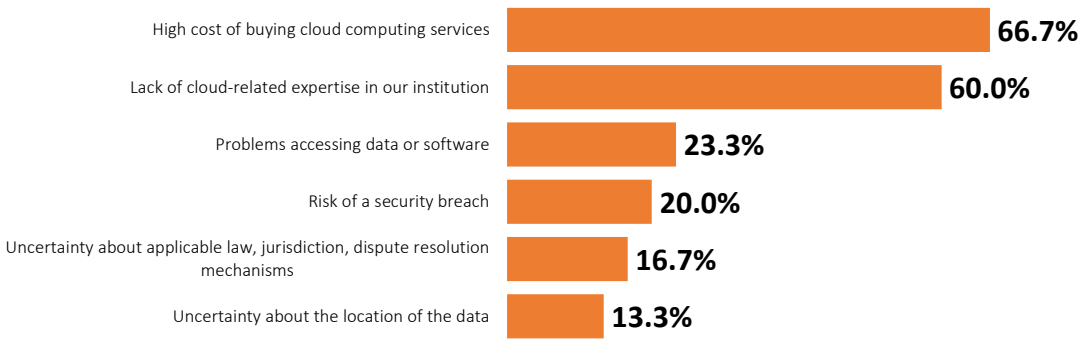
Cloud computing services in LGAs

Does your Local Government buy any of the following cloud computing services used over the internet? (multiple-select, ranked)



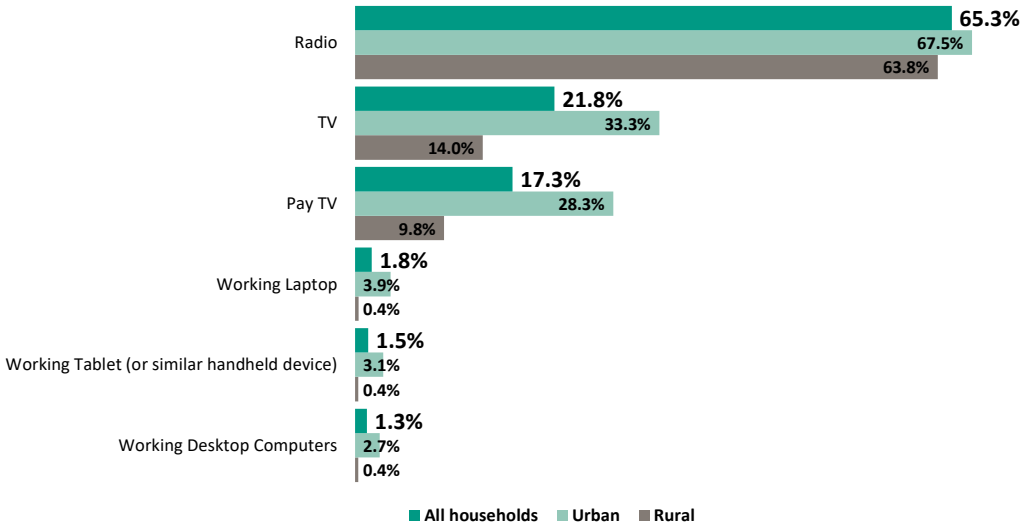
Cloud computing barriers amongst LGAs

What factors prevent or limit your Local Government from using cloud computing services? (multiple-select, ranked)

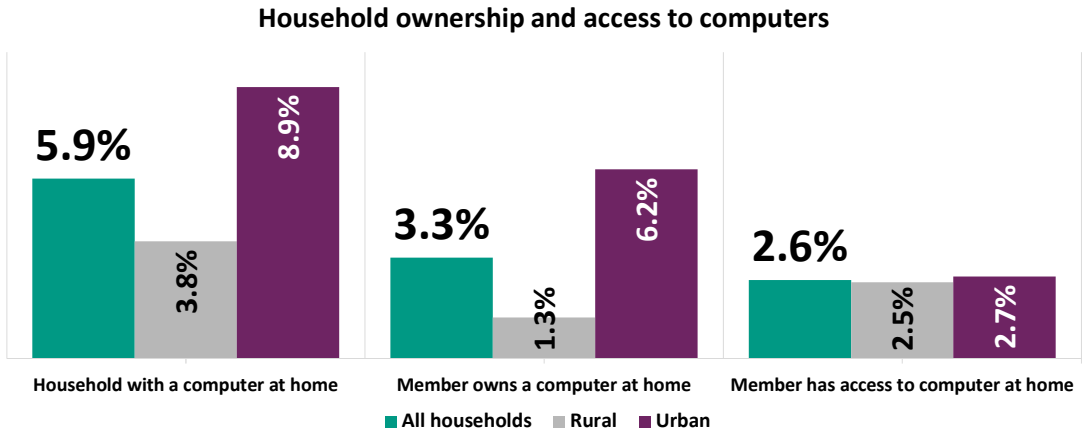


HOUSEHOLDS AND INDIVIDUALS

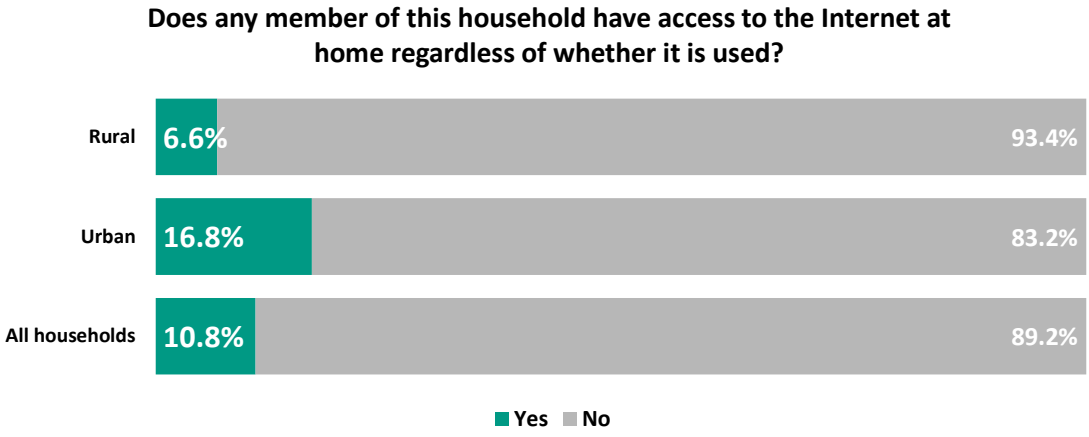
Household IT assets by location



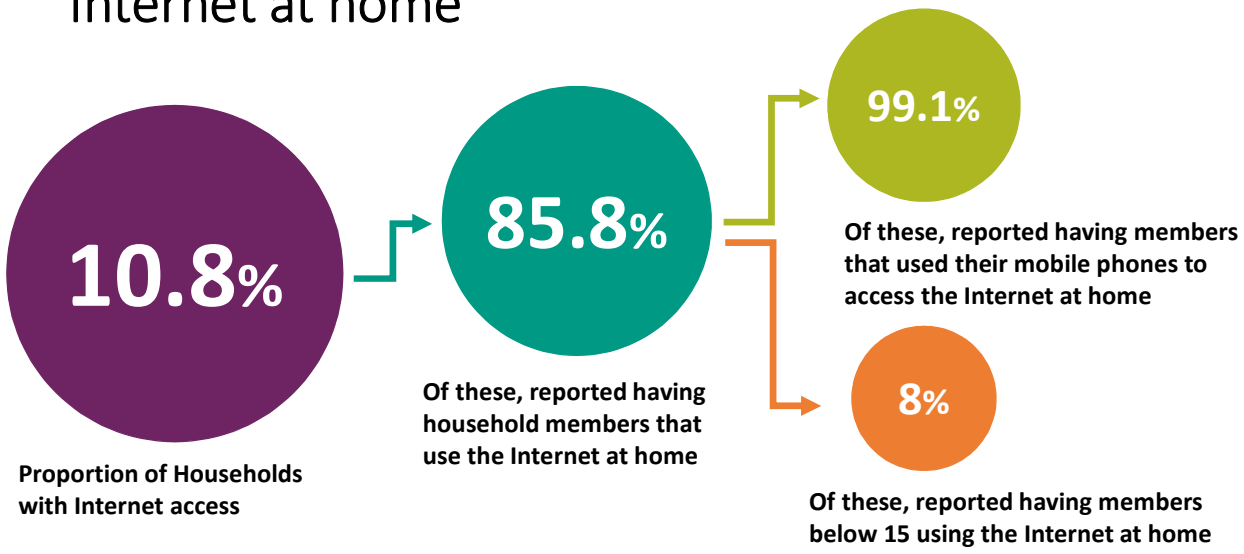
% of households with a computer



% of households with Internet access

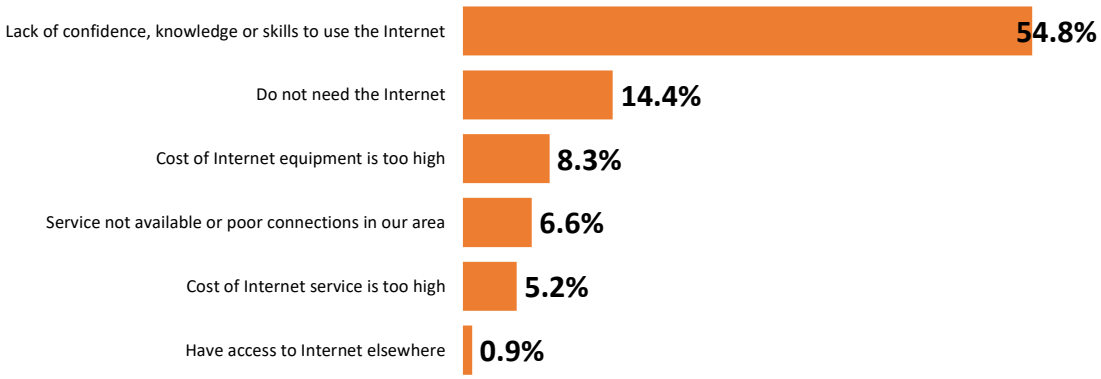


% of households with members using the Internet at home

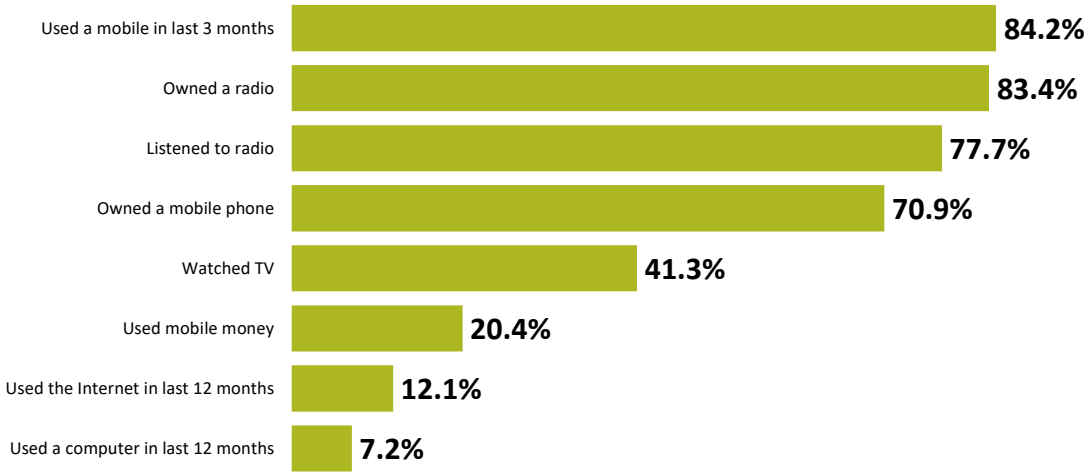


Factors preventing households from having internet connection

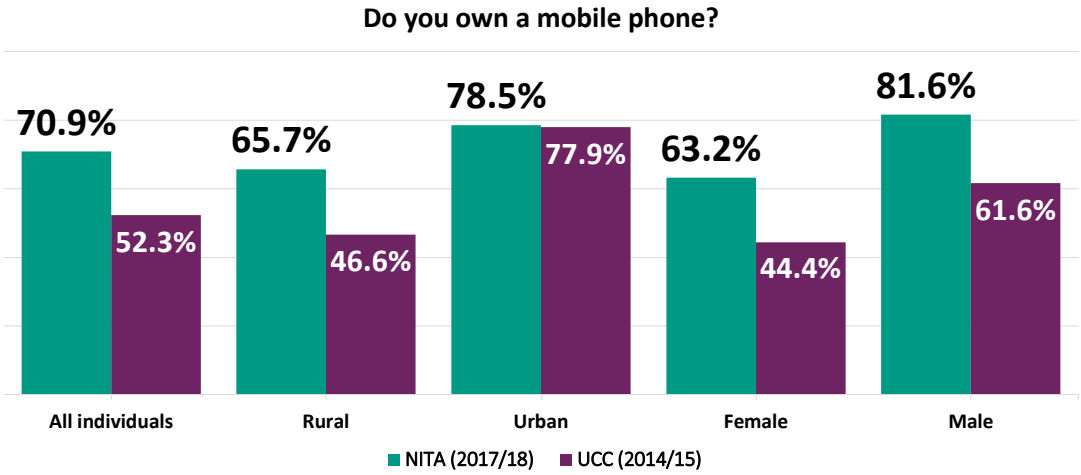
What is the main reason why the household does not have a working Internet Connection? (top 6)



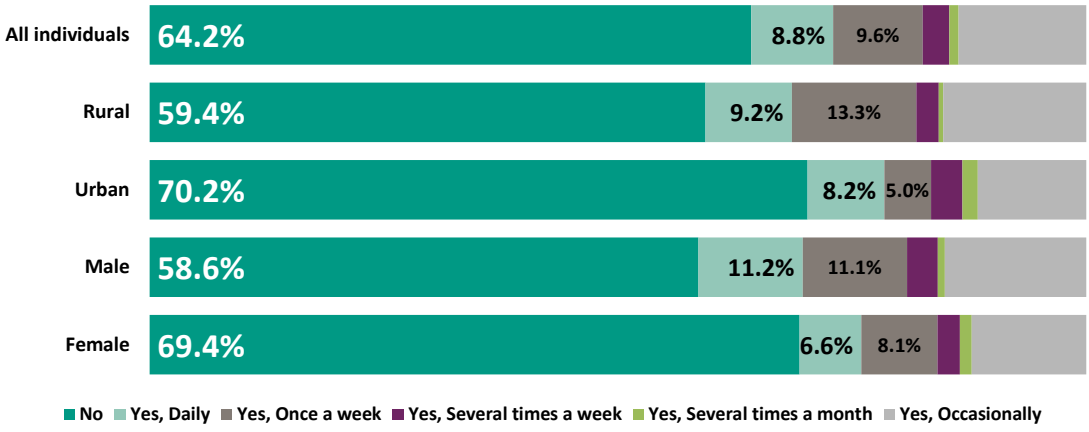
Individual access and use of ICT services



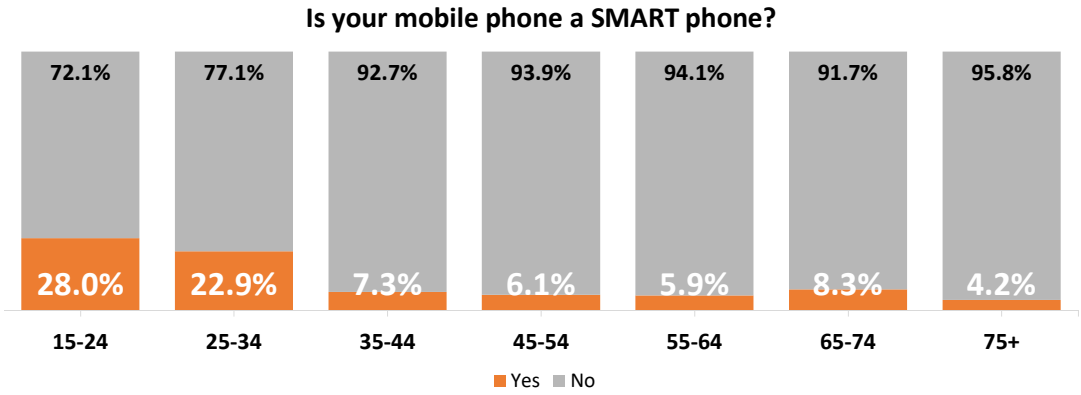
Trends in individual mobile phone ownership



Do you share your mobile phone with others?

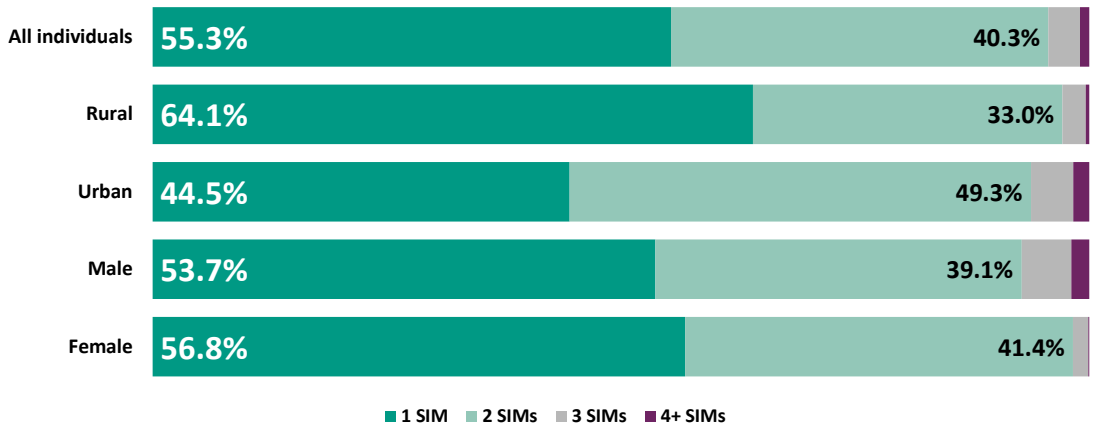


Young individuals own higher proportion of smart phones

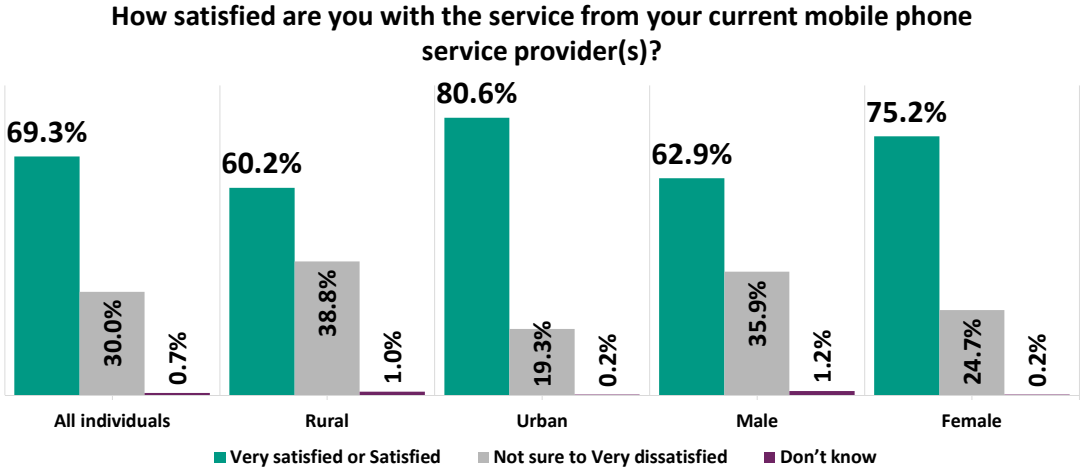


The survey defined a smartphone as a mobile phone that performs many of the functions of a computer, typically having a touchscreen interface, Internet access, and an operating system capable of running downloaded applications

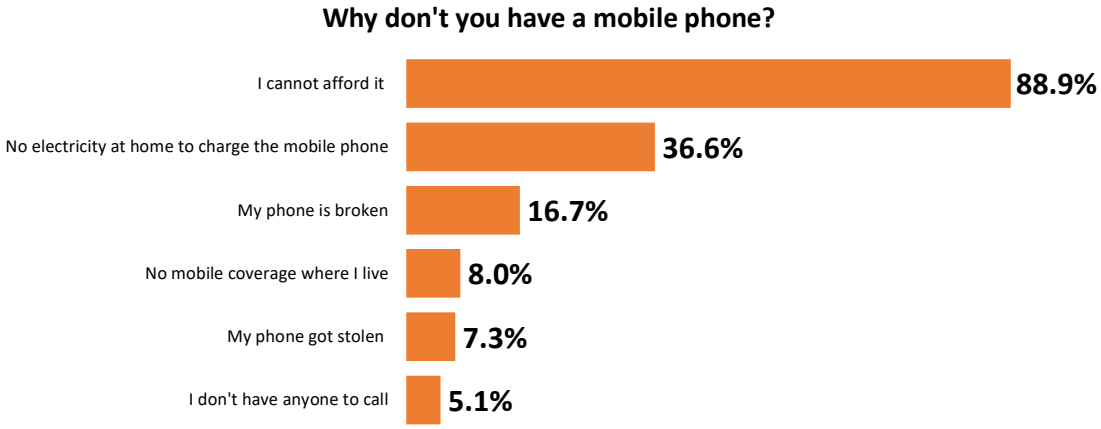
How many active SIM cards do you have?



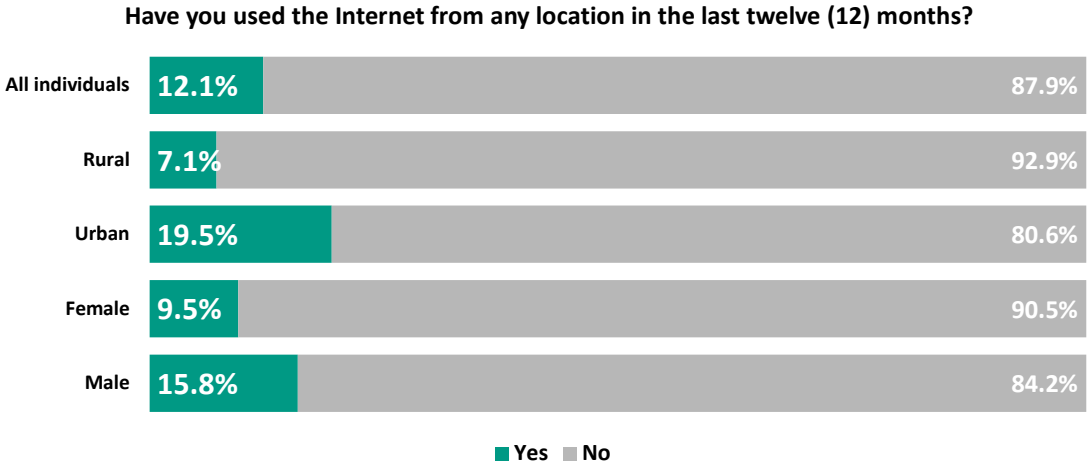
Individual satisfaction with current mobile phone provider by location and gender



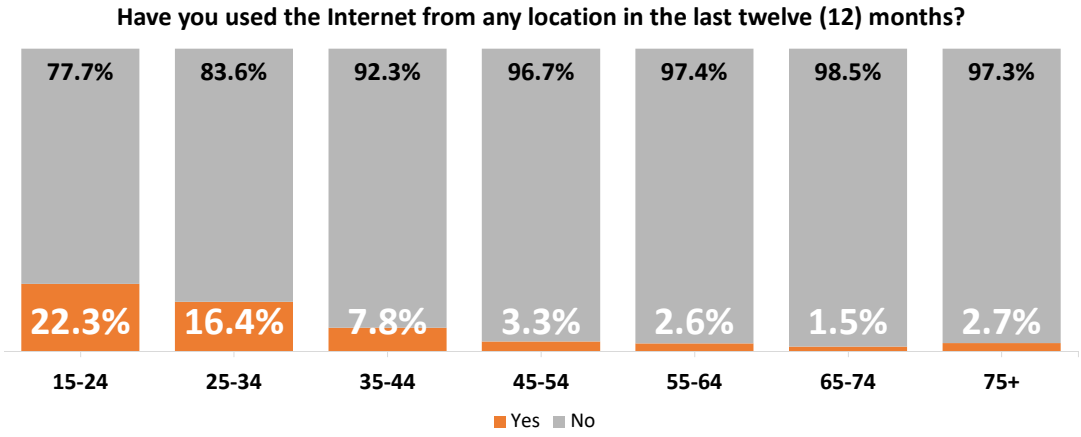
Individuals that do not own a mobile phone



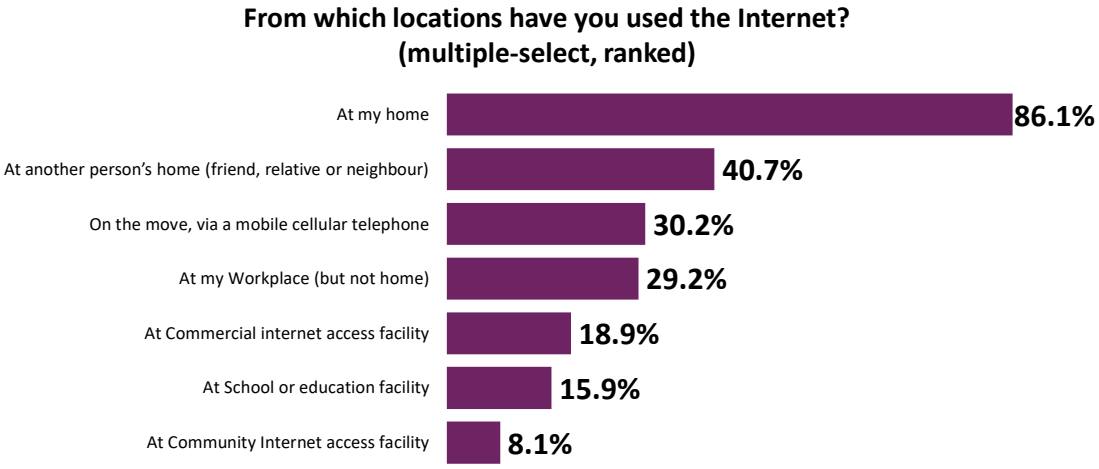
% of individuals that have used the Internet in last 12 months by location and gender



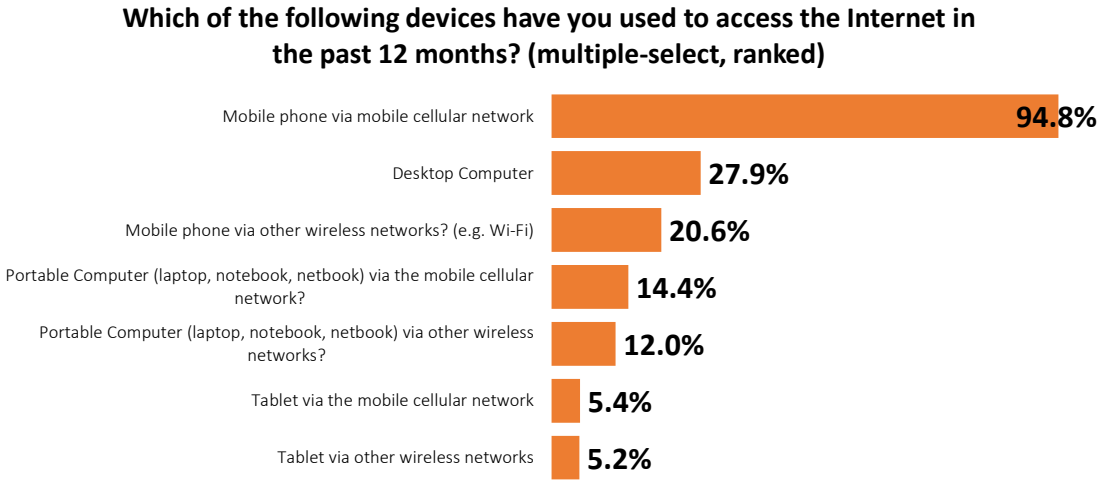
% of individuals that have used the Internet in last 12 months by age range



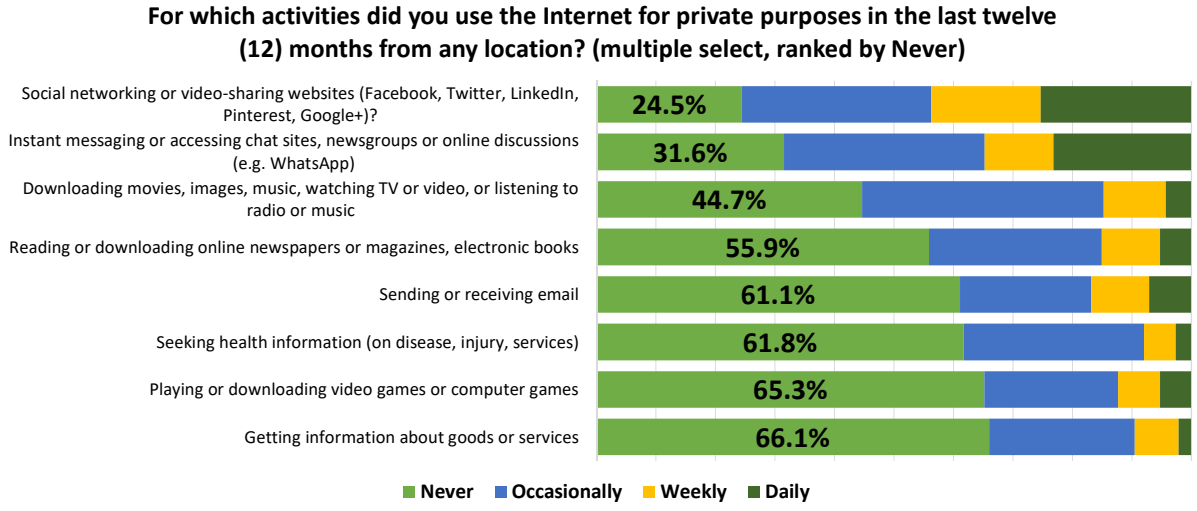
Locations from which individuals access the Internet



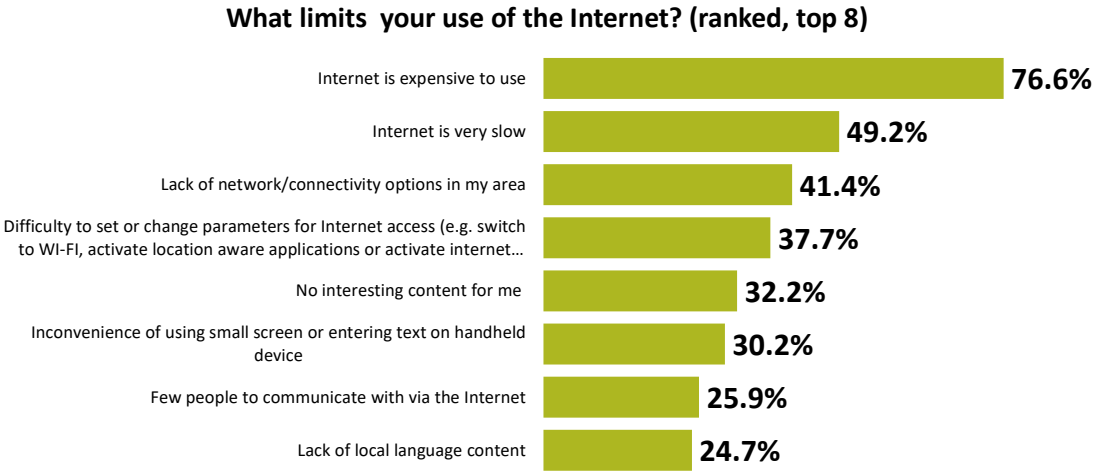
Devices that individuals use to access the Internet



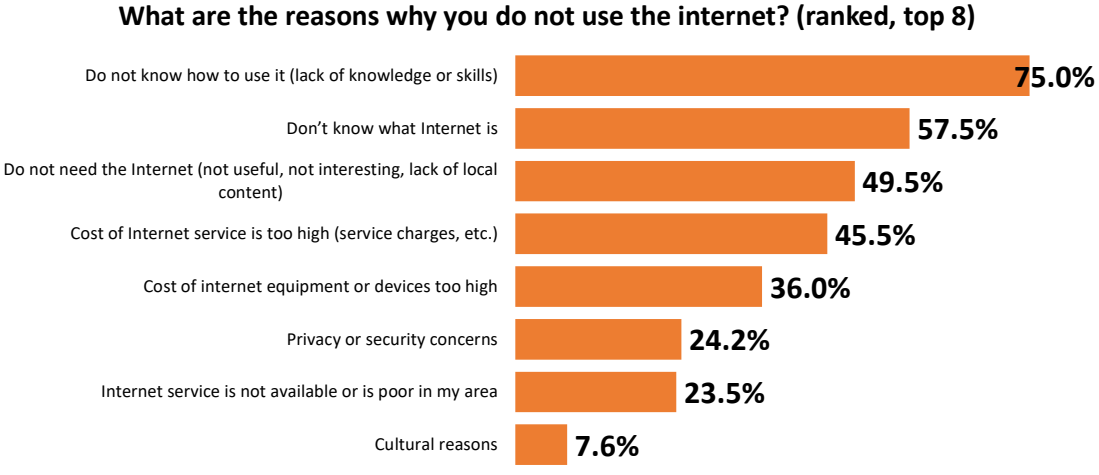
Activities that individuals use the Internet for



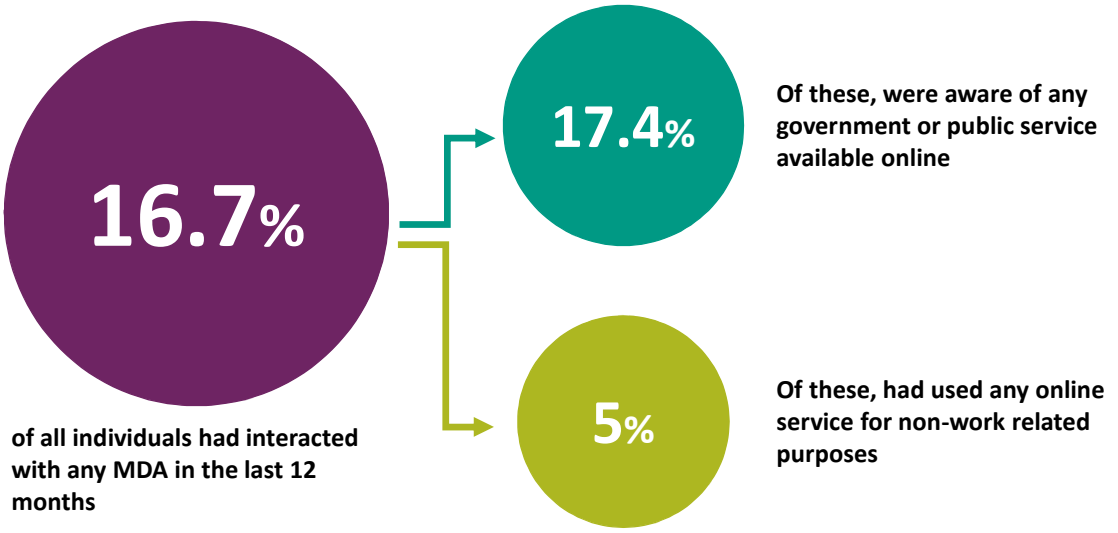
Barriers that limit individual Internet use



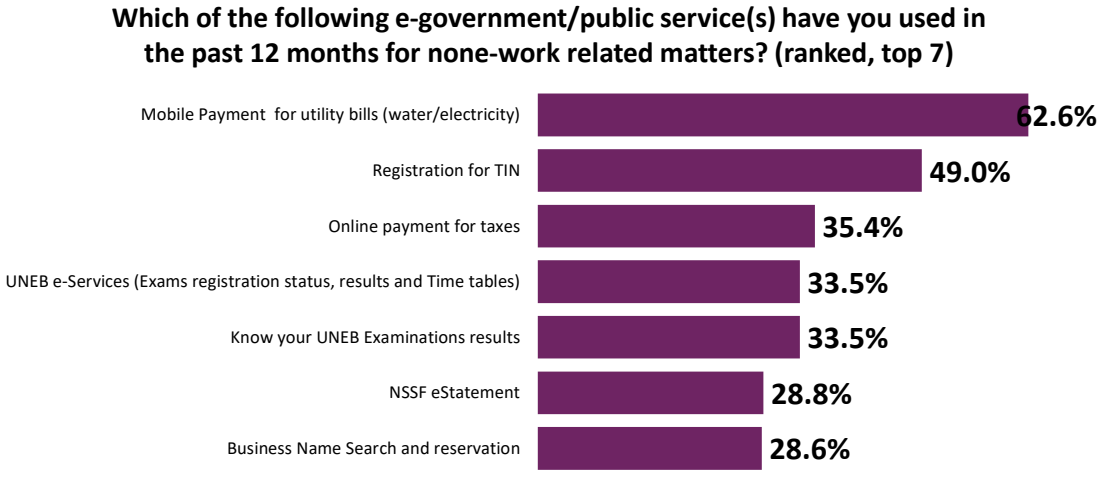
Non Internet users



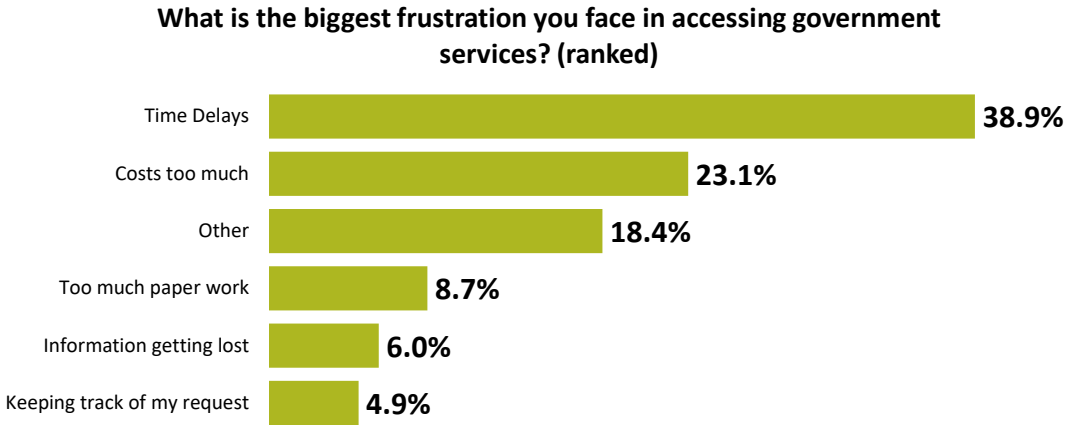
Individual interaction with MDAs, awareness and use of e-government services



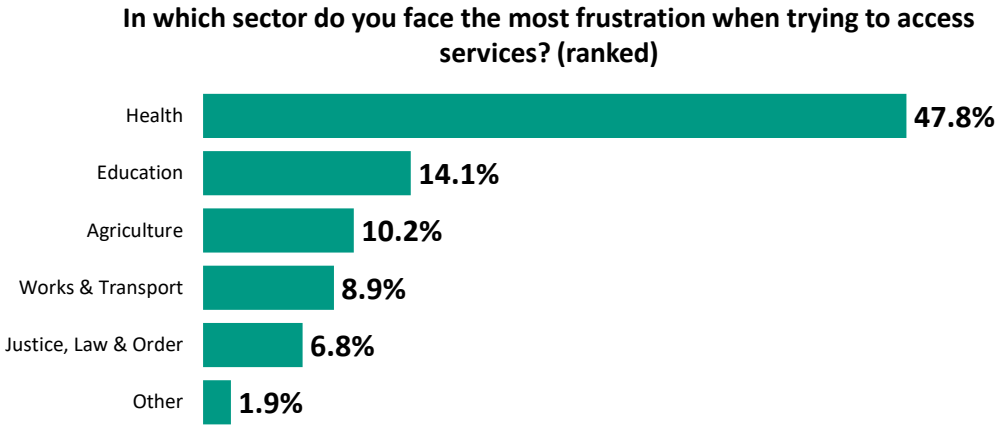
E-government services that individuals use



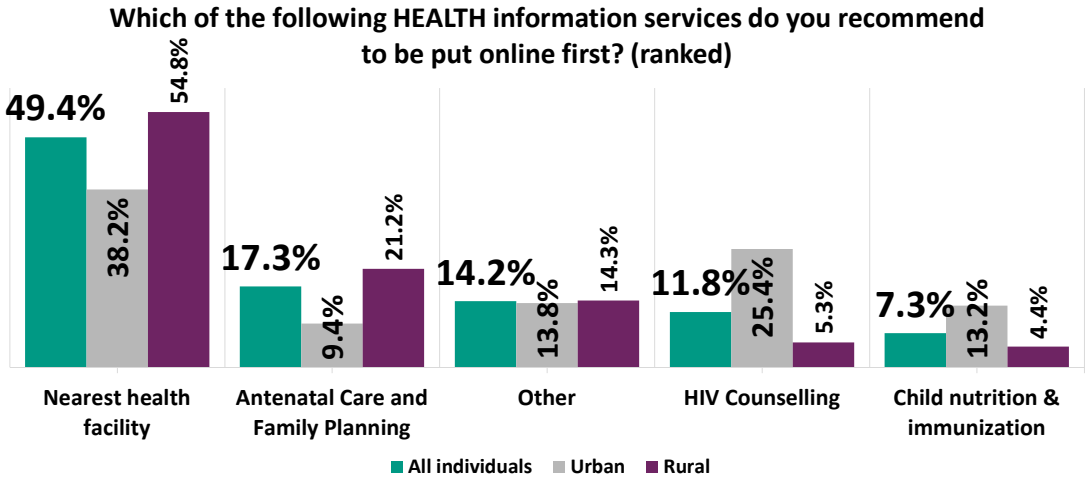
Barriers to individual e-government users



Potential sectors for new e-gov services



Digital health information individuals want by location



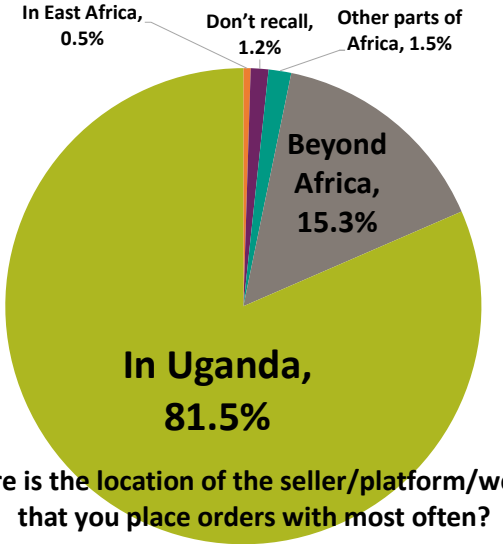
Individual e-commerce users

1.7%

Of all Individuals, have ever made an online order or purchase

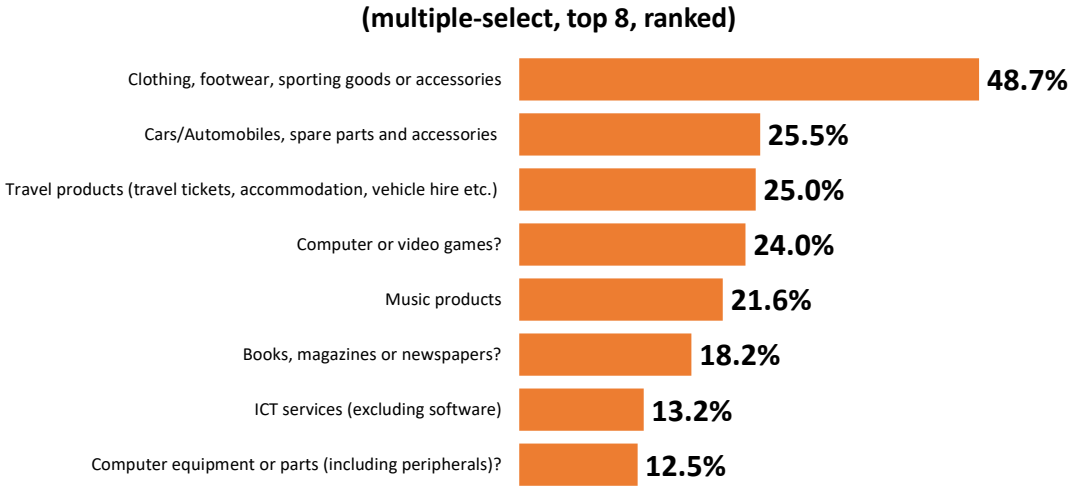
0.3%

Of all individuals, have ever sold anything online

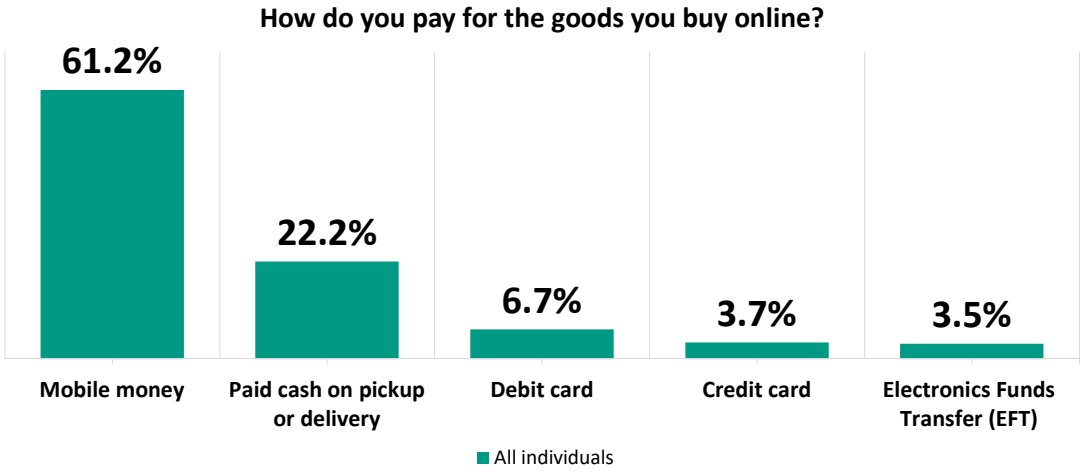


Where is the location of the seller/platform/website that you place orders with most often?

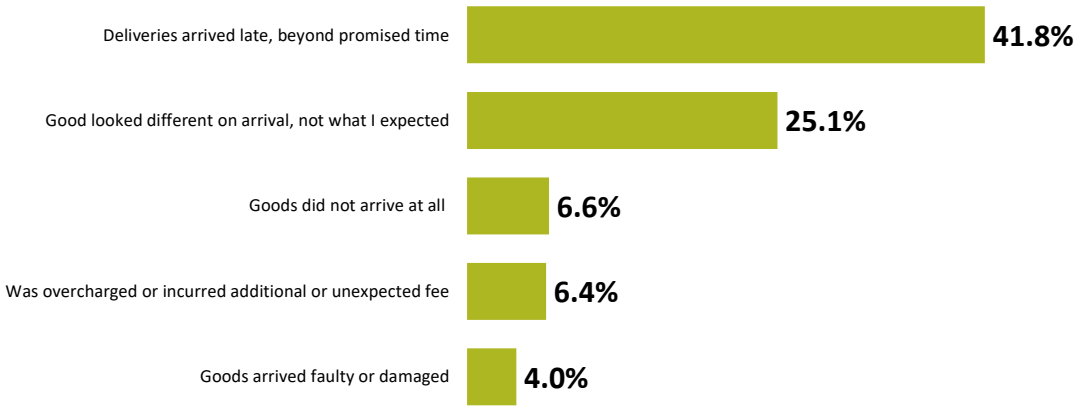
What types of goods and services did you purchase over the Internet?



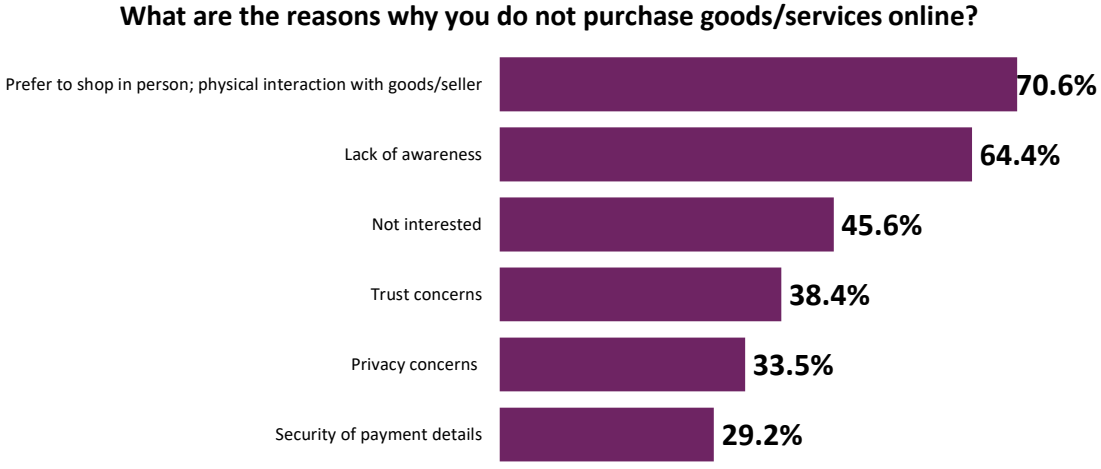
Payment methods used by individuals using e-commerce



What challenges have you encountered when buying goods or services online?



Non e-commerce users



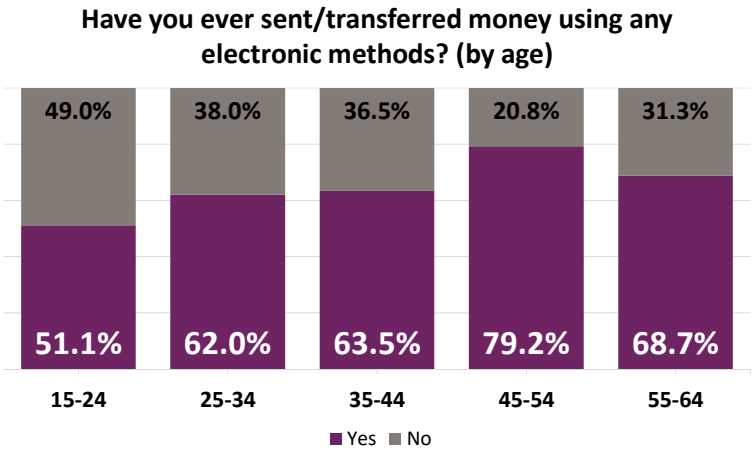
E-payments among individuals

62.1%

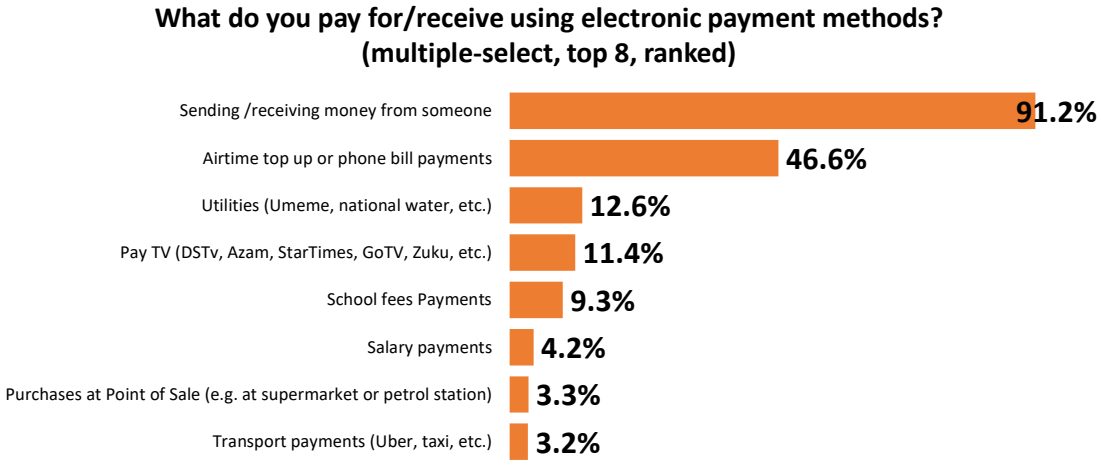
Of all Individuals, had sent or transferred money using an electronic method

94.3%

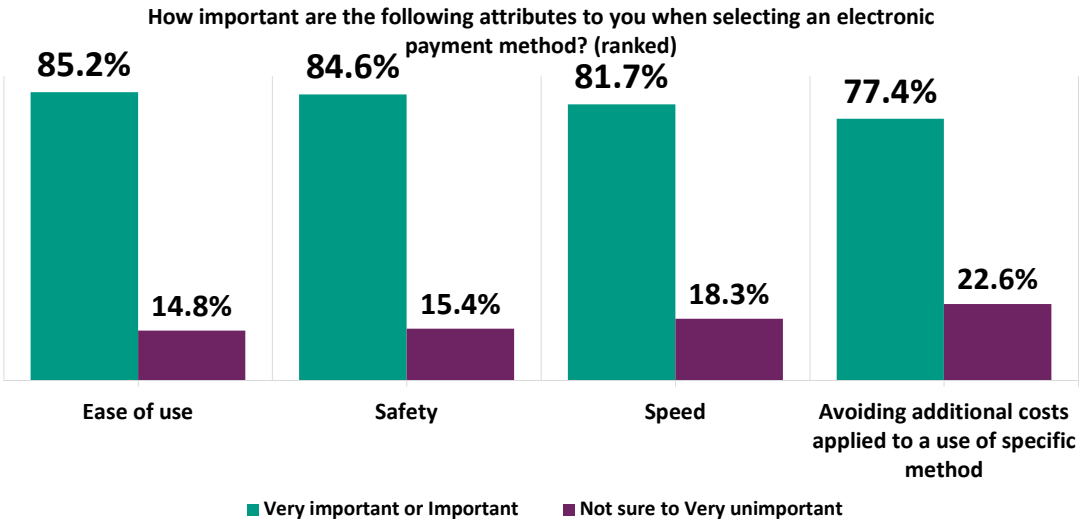
Of those that used electronic methods, used mobile phone-to-mobile phone as the channel to send/transfer money



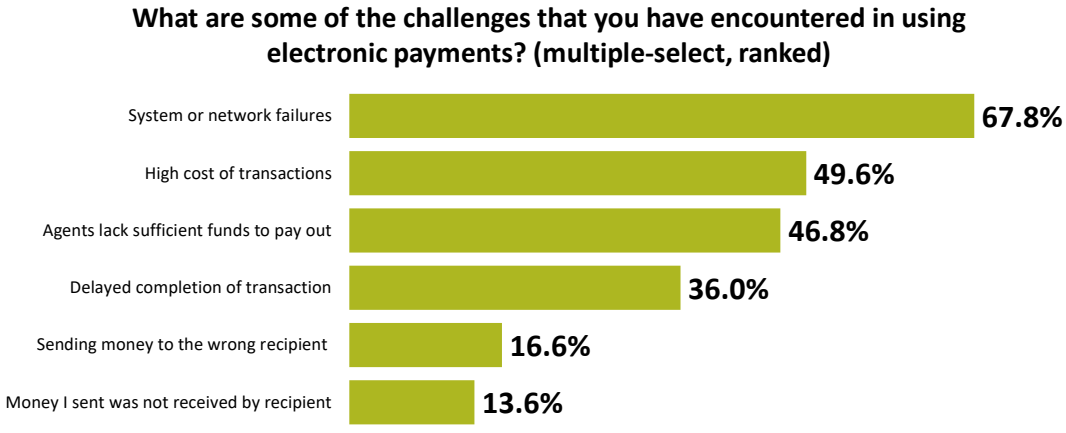
Individual purchase of goods and services using electronic payments



User experience with e-payment methods

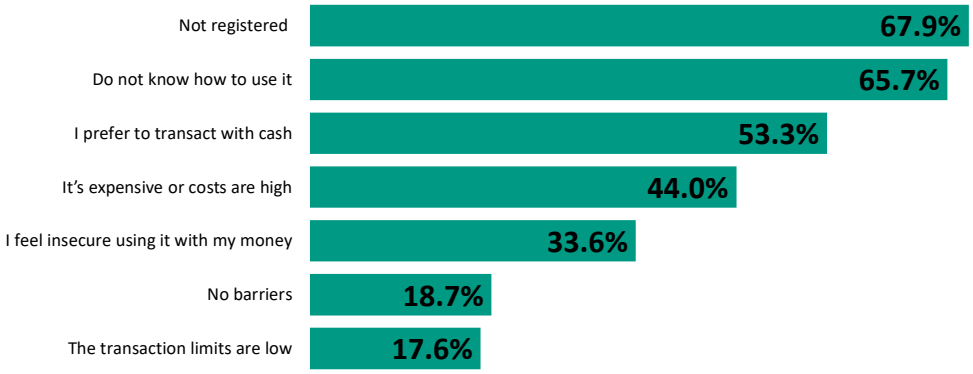


Individual challenges when using e-payments



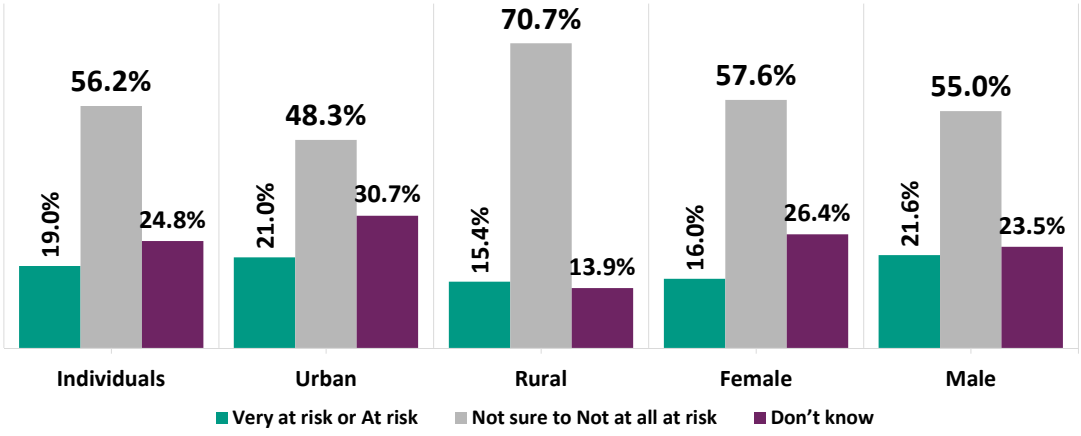
Barriers among non e-payment users

What do you consider as some of the barriers to using electronic payment methods? (multiple-select, ranked)

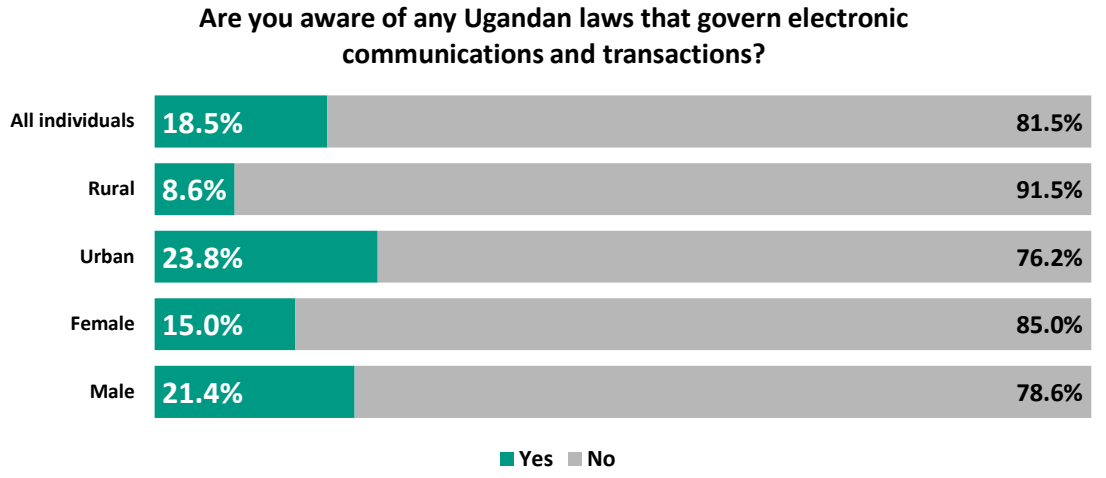


Perception of risk to cybercrime amongst individuals who use the Internet

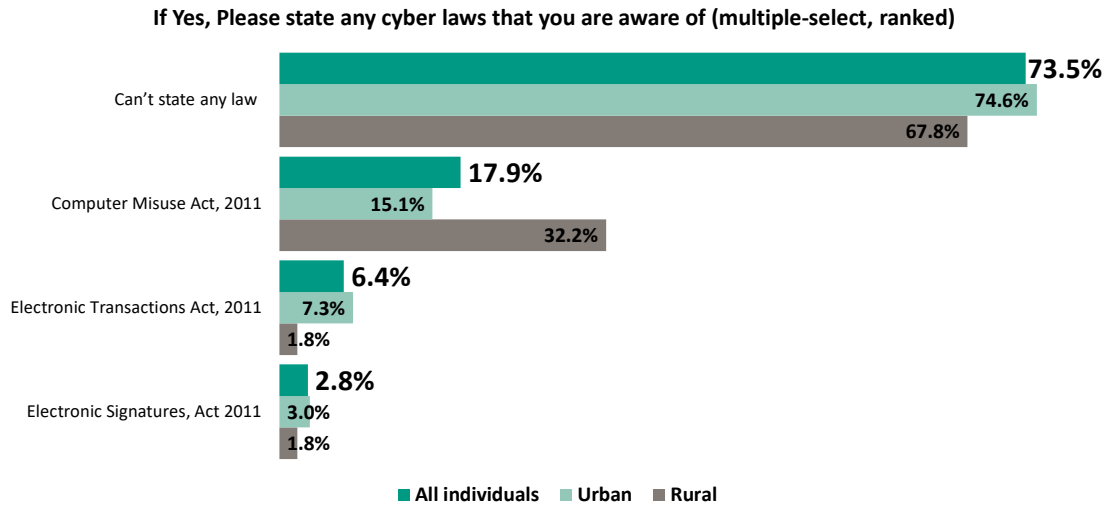
To what extent do you feel at risk from cybercrime?



Individual Internet users aware of Ugandan cyber laws

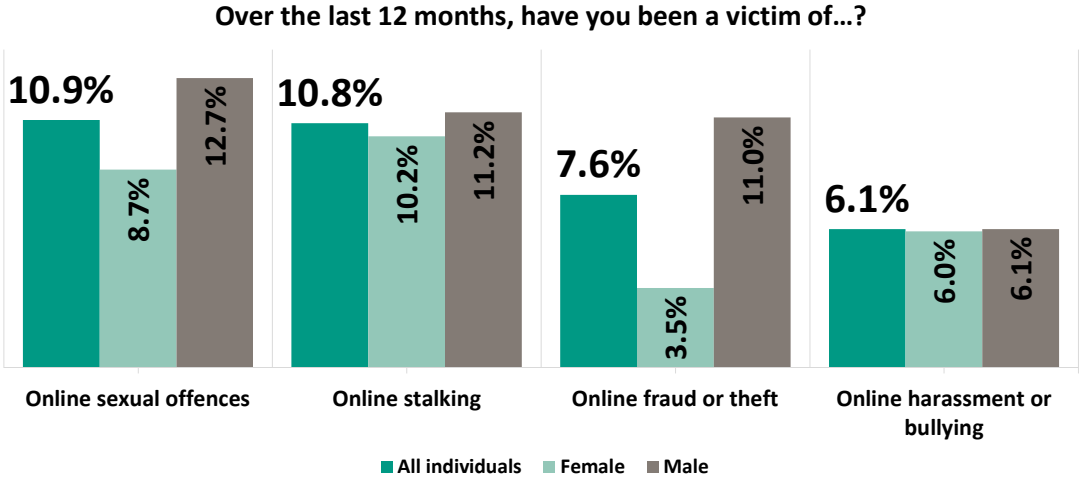


Individual Internet users awareness and knowledge of Ugandan cyber laws by location



Individual victims of cyber dependent crime over last 12 months

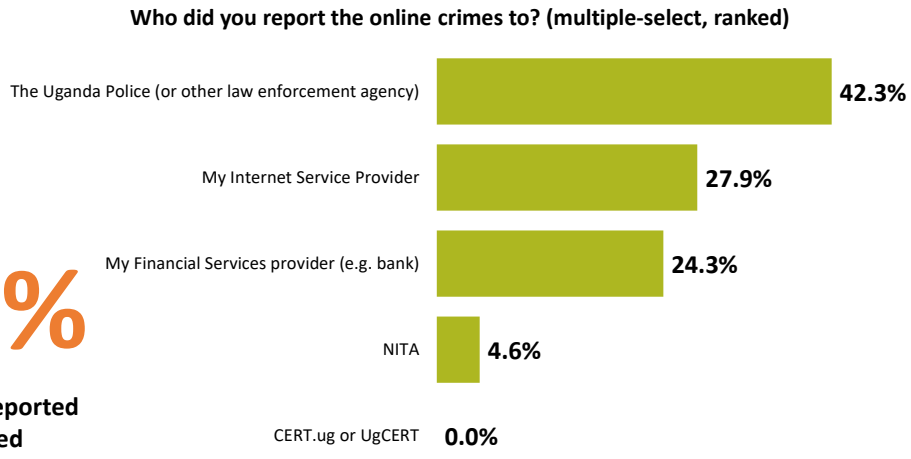
Individual victims of cyber enabled crime over last 12 months by gender



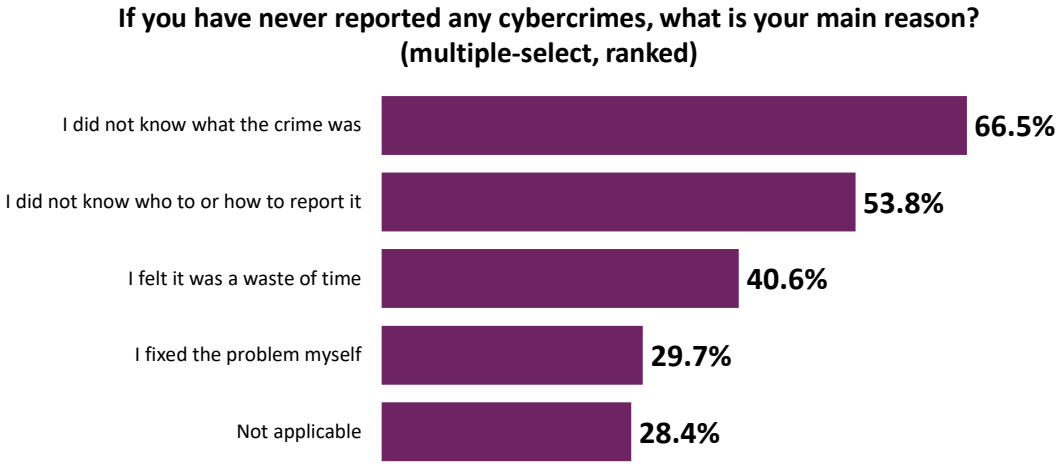
Where individuals report cyber crimes

3%

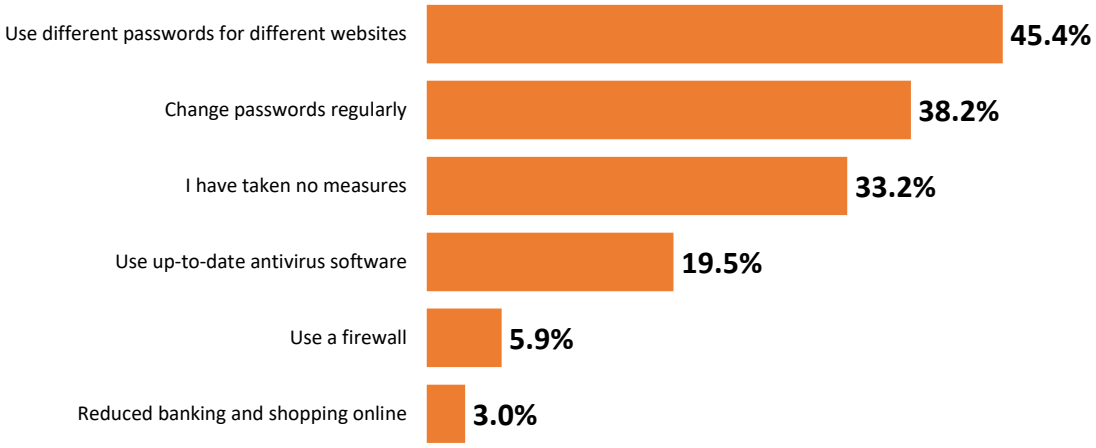
Of all Internet users, had reported any online crimes committed against them by anyone



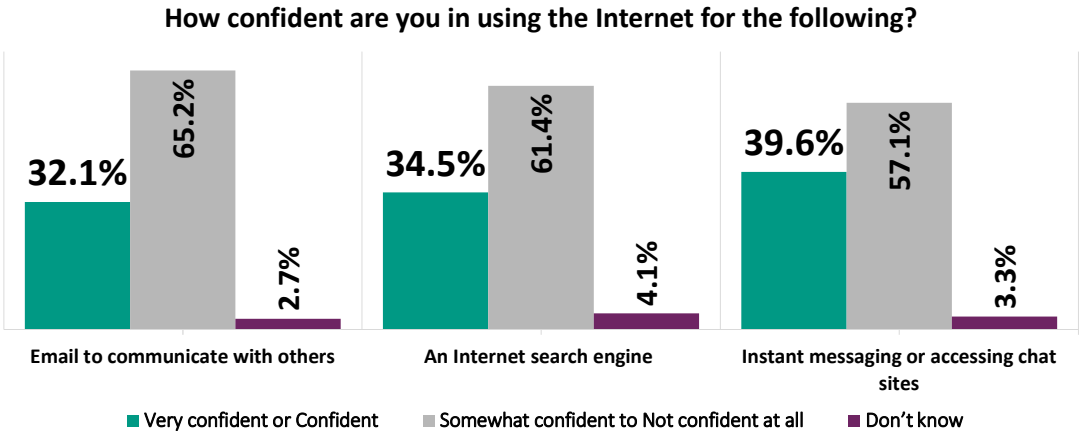
Why individuals do not report cyber crimes



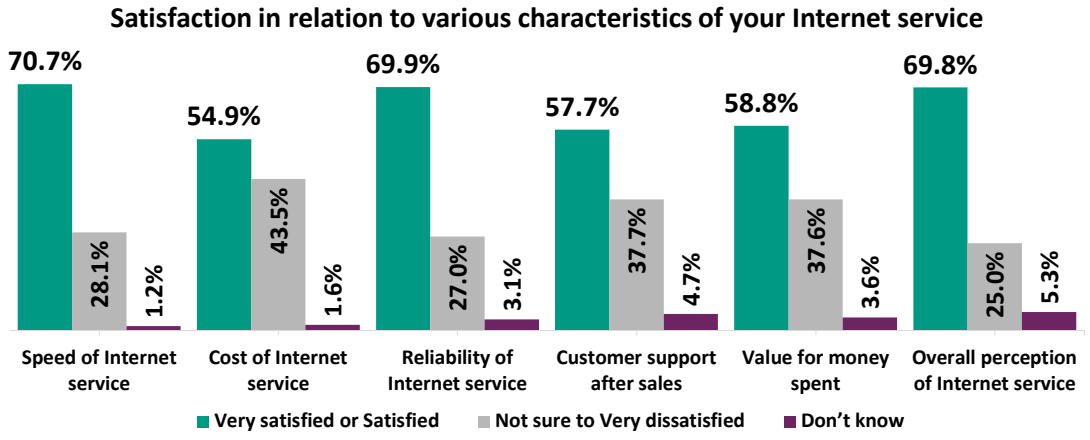
What measures have you taken to improve your online security over the last 12 months?



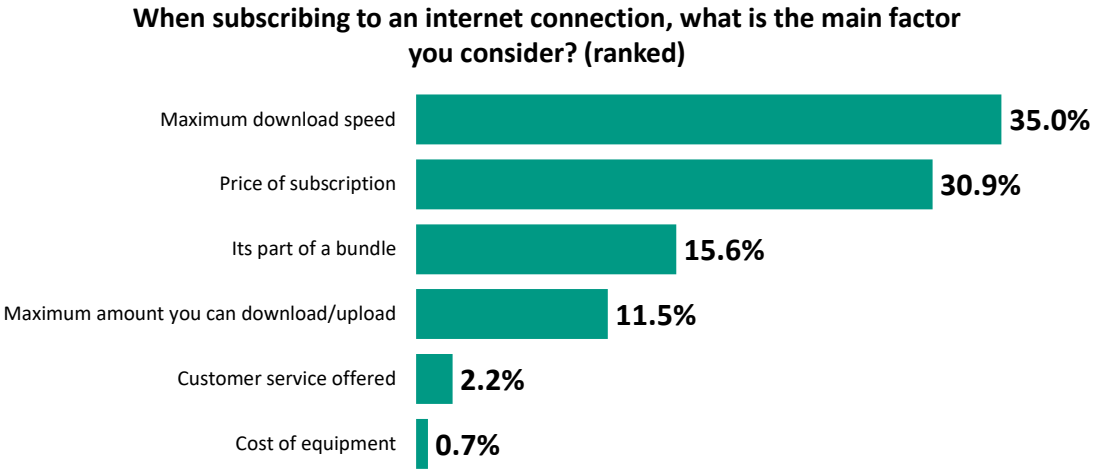
Usage confidence for common Internet tasks



Satisfaction with various attributes of Individual Internet service



Factors individuals consider when subscribing for an internet connection



RECOMMENDATIONS

Recommendations 1

- Design strategies to improve the level of IT skills and knowledge among MDA and LG staff
- Recognise that it is in competition both nationally and globally for competent ICT staff and come up with strategies to recruit, develop and retain staff with key ICT skills
- Develop and maintain a government-wide Strategic ICT Workforce Plan that draws on work done by multiple MDAs in terms of resourcing and training IT personnel
- Equip MDA and LG top leadership with knowledge on how to harness the potential benefits of ICT within their organisations to create more buy-in

Recommendations 2

- Build mechanisms to identify, monitor and reward superior performance and professionalism across government agencies and their ICT staff
- Leverage her collective buying power in areas where true economies of scale are achievable
- Design strategies to lower cost of end-user devices and communication costs
- Prepare guidelines to facilitate sharing of public data through using open standards and open data formats while balancing need to provide timely official data and managing potential risks that can arise from data misuse

Recommendations 3

- Extend coverage of National Backbone Infrastructure (NBI) to all parts of Uganda with a drop-off point in each district
- Invest more in creating awareness about benefits of using e-government services to increase citizens and business use
- Nurture a data-driven culture by developing frameworks to enable and guide collection, use and sharing of large amounts of data produced by various MDAs from the use of e-government services and other digital processes
- Build general digital security awareness among individuals using both digital and traditional media campaigns

Thank you for listening