



Report

Research on the use of digital tools by citizens and assessing the digital gap



RESEARCH REPORT ON THE USE OF DIGITAL TOOLS BY CITIZENS AND ASSESSING THE DIGITAL GAP

Table of Contents

1	Introduction and Purpose of the Research	4
2	Methodology	5
3	Key Findings.....	6
4	Results and Analysis by Thematic Areas.....	11
4.1	Digital Connectivity Technology	11
4.1.1	Access to electricity, television and the Internet in households	11
4.1.2	Digital workplace: computers and connectivity	14
4.2	Usage and Ownership of Digital Devices	16
4.2.1	Access to Technology, Use and Inclusion in Households	18
4.2.2	Challenges for Digital Inclusion	22
4.3	Digital Literacy Skills	23
4.3.1	Inclusive Access to Technology: assessment of disabilities and access to assistive information technology	25
4.4	Digital Wellbeing	27
4.5	Digital Public Services	30
4.5.1	Use of the national e-Uslugi platform, satisfaction levels and potential areas for improvement	33
4.5.2	Citizen perspectives: online municipal services, experiences and digitization	37
4.5.3	Anticipating technological impacts: Research on future perspectives and accessibility in North Macedonia	41
4.6	Digital Culture	42
5	Demographic Data.....	47

1 Introduction and Purpose of the Research

The digital transformation of public administration has become essential for the functioning of the state at all levels in recent years. The undeniable effects of digitalization are improved transparency and trust of the citizens towards the institutions as well as better socio-economic conditions for development. In North Macedonia, the political priorities for digitalization of the last years have led to creation of various programs and national tool for digital public services. However, digitization processes at the local level are lagging behind, resulting in a very limited number of electronic services available to citizens. To modernize the municipalities and their public services, it is necessary to build the IT knowledge and skills as well as to adapt the internal work processes. Additionally, to address the multi-dimensional challenge of digitalization, various aspects should be taken into account such as: transparency and sharing of public data, developing e-skills among the citizens and digital gap, cyber security and digital identity. The technical and financial capacities of municipalities to implement digital transformation processes are very weak. The number of municipalities that have IT potential in terms of equipment and human resources is limited. Most of the municipalities struggle to ensure basic IT services both internally and towards their citizens. Due to the serious differences in the digital readiness of the municipalities, they are not able to provide some functional and safe digital solutions. To address these challenges, Local Government Units utilize the inter-municipal cooperation (IMC) instrument as a tool for joint execution of legally assigned function and provision of public services to the citizens. In order to respond to the above challenges, the project "Macedonian model of e-Municipality", financed by the Ministry of Finance of the Slovak Republic (MFSR), deals with inter-municipal cooperation (IMC) as one of the options for ensuring balanced digital development of municipalities. UNDP Assessment of the inter-municipal cooperation experiences reveals that 77,5% of municipalities have entered into a concrete IMC agreement, which is a good foundation to build on. The same assessment reported numerous financial and non-financial IMC benefits especially for rural and small urban municipalities with limited capacities and resources. The combination of financial and human resources in order to provide better services to citizens is an adequate solution to contribute to the digital transformation at the local level. In recent years, UNDP has been actively involved in both promoting inter-municipal cooperation and digitalization of municipalities by developing comprehensive e-readiness assessment of the local self-government units and methodology for digital transformation of municipalities. These analyses led to the implementation of the national model of e-Municipality which is currently being piloted in the municipality of Veles, as part of the Macedonian model of e-Municipality project.

Overall objective of the project is to boost the digital transformation of the municipalities in North Macedonia by providing continuous support in strengthening their capacities to deliver e-services for citizens. Thus, the need for a measurement of the usage of digital tools of citizens and the creation of a digital gap report for citizens. Specifically, the project supports digitization of services in a partnership of two or more municipalities using the inter-municipal cooperation mechanism, which will enable the combination and sharing of financial and human resources between municipalities, thereby reducing costs and increasing efficiency.

The objective of this research and the Digital Gap Assessment is to identify the main challenges of accessibility of IT tools and digital literacy among citizens. Moreover, the aim is to use the report in order to plan and propose new digital tools that go hand in hand with the adequate information and sensibilization of the citizens for its use.

2 Methodology

The methodology that Indago used for the implementation of this quantitative research, i.e. public opinion survey, were direct, face-to-face interviews in the respondent's home, via CAPI (Computer Assisted Personal Interview) data collection technique. The face-to-face interview is the most commonly used method for collecting data from target groups of respondents, especially in public opinion polls. The main advantage of this method, especially when it involves a representative sample, is that the results are objective and can easily be used to define general conclusions and findings. Face-to-face interviews are used when the research topic requires a deeper and more detailed analysis and when the representativeness of the sample is equally important.

In accordance with the project objectives, Indago, in cooperation with UNDP, finalized the structured questionnaire. It consisted of about 55 questions divided into the following thematic areas:

- 1) Digital connectivity technology
- 2) Use and ownership of digital devices
- 3) Digital literacy skills
- 4) Digital well-being
- 5) Digital public services
- 6) Digital culture

The main target group of the survey was the general public in the Republic of North Macedonia aged 18 and over. The survey was conducted on a national representative sample of 802 respondents by statistical regions, place of living (urban/rural), age, gender, and ethnicity.

The data was collected in Macedonian and Albanian, in the period from 03 to 23 October, 2023.

3 Key Findings

Below is an overview of the more specific key findings within the thematic sections of the conducted research.

Access to electricity, television and Internet in households

- The research provides a comprehensive picture of the household access, revealing that 100% of the respondents are connected to the electricity grid, and every surveyed household has a television. Access to Internet is prevalent among 89% of the respondents.
- The data also emphasizes the development of Internet connectivity, with 66% using cable internet, 55% using wireless internet (Wi-Fi) and 32% opting for LTE/3G/4G/5G. However, challenges exist, especially for school-going children (37%), as over one third of them (36%) do not have access to computers/tablets at school.
- Additionally, more than half (54%) reported that an Internet service provider does not offer free public wireless access in their area of living.

Digital workplace: computers and connectivity

- Concerning the digital workplace, a nuanced relation in the use of computer/laptop and digital connectivity among the respondents can be observed in the research. A significant part (47%) stated they were unemployed, while 29% own a computer/laptop at their workplace. Namely, 14% of respondents do not need a computer/laptop for work, and 10% do not have one.
- The majority (72%) of employed respondents have access to the Internet at their workplace, while 27% do not have access. Daily Internet use prevails among the majority (79%) of the respondents who have Internet access at their workplace.

Use and ownership of digital devices

- In general, regarding the use and ownership of digital devices, the research draws attention to the widespread use of technology in households. The majority of respondents have digital television (67%), and the dominant personal devices are smartphones (88%). Laptops are owned by 46% of households, desktop computers by 35%, while gaming devices/consoles are the least common in households, with 86% of respondents stating they do not own them.
- Furthermore, the survey indicates a strong personal investment in technology, with a significant percentage of respondents who personally purchased their smartphones (74%), laptops (57%), mobile phones and tablets (54%) and televisions (51%).
- In summary, the survey reveals a widespread usage of digital devices in households, with smartphones emerging as a ubiquitous personal choice. The data also reflects a trend among consumers to actively purchase personal technology, which points out the important role digital devices have in people's everyday life.

Access to technology, use and inclusivity in households

- In terms of access to technology, use and inclusivity in households, the survey highlights a high level of autonomy, with 98% of respondents stating that they do not need permission to use devices in the household.
- Gender differences in access to digital devices are minimal, with 95% of respondents stating that there are no differences between men and women in their households when it comes to

access to digital devices. However, the main reasons given by those (5%) who think that such differences exist in their household are that women/girls have less digital skills (26%), and that men/boys are more interested in using digital devices (23%).

- The data reveal that smartphones are the most common (95%) of all digital devices with an Internet connection. While the majority (73%) use the Internet and digital devices on a daily basis, 12% never use the Internet.
- Communicating to lots of people (79%), that is, using applications such as WhatsApp and Viber, accessing social networks, as well as communication that is mainly "one to one" (73%), is for most respondents the primary reason for the Internet use. Additionally, more than half (51%) use the Internet for information seeking.
- Despite the widespread use of digital devices, 64% of respondents have an email address, indicating varying levels of engagement with various online functionalities.

Challenges for digital inclusion

- About a quarter of respondents (26%) identify low-income households and seniors over 60 as most vulnerable to digital exclusion, with 22% drawing attention to the individuals with disabilities.
- Regarding the question about the main obstacles women and girls are faced with in accessing digital technologies, almost half of the respondents (49%) believe that there are no obstacles for women and girls to access digital technologies or participate in digital life. However, 20% of respondents believe that lower incomes can be an obstacle, as well as the price of equipment or devices (18%). Women's weaker digital skills (17%), as well as the price of services (16%) and availability (9%) are also considered an obstacle.

Digital literacy skills

- The research data show a diverse spectrum of self-assessed competencies among the respondents. While more than half consider themselves competent in using social media networking sites (62%), search engines (60%) and various digital communication applications (57%), a significant group rate themselves as incompetent or lacking knowledge of more advanced skills such as is using HTML and basic coding (71%), virtual and augmented reality (70%), and setting up websites and domains (67%).
- In terms of online communication tools, Viber appears as the most widely used or recognized, with 89% of respondents, followed by Skype and WhatsApp with 54%, Zoom with 43% and Google Meet with 41%. A minimal percentage (3%) reported that they do not use any tool for online communication.
- Facebook which is a dominating social media network (71%) used, is followed by Instagram with over a third (40%) and YouTube and WhatsApp with a third each (33%).

Inclusive access to technology: assessment of disabilities and access to assistive information technology

- The survey reveals that the majority of respondents (91%) do not report any disability in their households, with only 4% reporting a family member with some disability and 2% personally reporting having a disability. Among persons with disabilities (6%), the most common are physical disabilities (66%), followed by intellectual disabilities (22%), visually impairment (18%) and hearing disabilities (12%).

- With respect to access to assistive information technology, a significant percentage (76%) of respondents with disabilities or family members with disabilities (6%) stated that they did not have access. However, about two-thirds (67%) of respondents, who reported that they personally or that a family member have a disability (6%), have access to assistive information technology through non-governmental organizations, while one-third (33%) use assistive technology at home which they themselves bought.

Digital wellbeing

- The obtained data, in general, emphasize the positive perception of the impact of the Internet, with 46% of respondents noticing a positive impact, while 34% consider the impact to be neutral, and only 5% feel a negative impact. Additionally, a significant proportion (60%) agree that digital skills are of great importance in today's adult education/training, and 59% believe that technological advances, such as computers, have made tasks like data input and processing easier.
- The motivation behind accepting new technological solutions is diverse, with 36% feeling motivated, 28% feeling somewhat motivated and 33% lacking motivation. The enjoyment of using digital technology is evident among half of the respondents (50%), while 27% feel unsafe online. Specifically, 58% feel safe online.
- Of those who feel unsafe online (27%), the majority (69%) would contact the police for help if they felt threatened, while 19% would not reach out for help. For those who feel unsafe, the biggest online threat is fraud (62%), followed by having their photos used in an inappropriate way (38%) and unwanted sexual approaches on a social networking site or by email (21%).
- Despite the concerns, more than half of the respondents (55%) have never experienced anything unwanted online. For those who have, 21% have experienced disinformation, 11% have experienced hacking, and 10% have come across sexual images and content.

Digital public services

- Regarding digital public services, the data reveals a mixed perception of the central government effectiveness in the use of digital technology. Approximately, one-quarter of citizens (24%) think that the central government is effective, while 21% consider it ineffective, and 35% provided an average rating. Similarly, for municipal government, 21% consider it effective, 27% ineffective, and 31% gave an average rating.
- In the past 12 months, a significant number of citizens (46%) had to apply for health services in-person, 43% for an identity card or passport, and 25% for vehicle registration. The majority (71%) expressed satisfaction with the public services they used, while 24% were not satisfied.
- For those who were dissatisfied (24%), primary reasons include: long waiting times (63%), rude and unwelcoming staff (43%), too much crowd (41%), uncertainty about when the service will be received (40%) and challenges with maintaining physical distance (26%).
- Challenges related to personal service experiences, such as long waiting times and interactions with officers, suggest areas for improvement.

Use of the national e-Uslugi platform, satisfaction levels and potential areas for improvement

- The data disclose a relatively low level of awareness and use of the national e-Uslugi platform by the respondents. More than half (55%) have not used the platform, and 29% are not even aware, that is, they have not heard of it. Of those who used it (16%), the majority (53%) did

so for obtaining personal documents, followed by services in the area of education and training (33%) and health services (21%).

- User satisfaction with online services is generally high, with 61% expressing satisfaction. However, 21% report experiencing technical difficulties with the webpage.
- Among those who used the platform (16%), there is a clear demand for additional services, with 63% of respondents who would like to be provided with a tax payment service, 44% for civil registry services and 41% for vehicle registration. The majority (57%) would also like the platform to be adapted for easier use, while 55% want the available services to be expanded.
- The main obstacles, for those who have not used the e-Uslugi platform (55%), include lack of access to devices or internet (53%), lack of knowledge on how to use the services (33%) and limited availability in their language (21%).
- Despite the availability of online services, 58% of citizens still prefer visits to offices in person. In terms of the most useful online services, the respondents identify civil registry services (33%), utility payments (29%) and tax payments (25%).

Citizen perspectives: online municipal services, experiences and digitization

- The research reveals a dominant lack of awareness and usage of online municipal services, with 86% of respondents stating that they did not use online services offered by their municipality. The primary reasons, for those who did not use these services, included: not knowing that the municipality offers online services (48%), a preference for visits to offices in person (15%) and difficulty using the application (12%).
- For 8% of respondents who used the municipal online services, the most used services were communal affairs (33%), urbanism (30%), legal and general affairs and education, sports and culture (19%).
- The satisfaction among those who used the municipal e-services is relatively high, and 69% consider obtaining online services easy and quick. However, 11% faced challenges, including difficulty understanding guidelines or information on the platform and experiencing technical problems.
- Regarding the preferences for digitization, a small part of respondents (7%) believe that all areas under the municipal competence should be digitized, while 6% specifically mention cadastral and legal property services, and 5% mention tax payments and obtaining personal documents. However, a significant percentage (59%) did not express a clear opinion or refused to answer.
- Regarding the municipal online presence, approximately half of the respondents (47%) know that their municipality has a Facebook page, 20% notice regular website updates, and 10% stated that the municipality replies to requests and comments received via social networks. However, 43% of respondents did not have this information.

Anticipating technological impacts: Research on future perspectives and accessibility in North Macedonia

- Research on future perspectives and accessibility in North Macedonia brings to light different expectations about the impact of technology on different aspects of life. While more than a third of respondents expect positive changes in the way they use banking services (37%), work or study (34%) and access government or public services (31%), there is scepticism about

improving the way children are educated, and only 18% believe that technology will make a change for the better.

- A significant number of respondents (43%) do not know about accessibility of web services for people with disabilities in North Macedonia. Additionally, 35% believe that these services are not available, while 22% believe that they are available.

Digital culture

- Digital culture, according to the data, points out to different perspectives on reporting mechanisms for different social issues. Concerning the violence against women or domestic violence issues, the majority of respondents' belief (67%) is that calling the police would be most helpful, followed by a 24/7 hotline (42%), online chat services (20%) and online groups or communities (14%).
- Furthermore, in relation to sexual harassment and violence at the workplace, 24% of the employed respondents surveyed, stated that there is no system for reporting such incidents at their workplace. However, there is a clear consensus on the usefulness of the various reporting mechanisms: 57% consider mobile applications operated by relevant authorities to be useful, 55% consider prevention training courses useful, 53% support an online reporting platform and 51% consider an official complaint in writing also useful.
- When it comes to reporting environmental pollution, half of respondents prefer calling the police, while 14% would use an online reporting platform offered by the municipality.
- It is worth noting that there is a notable hesitance with respect to reporting corruption online. Only 26% of respondents would feel comfortable reporting corruption through an online platform, and 66% expressed concern about revealing their identity. However, 61% would feel more comfortable reporting corruption anonymously and through secured (encrypted) systems.
- The key finding stresses the importance of designing reporting mechanisms that align with citizens' comfort levels and preferences.

4 Results and Analysis by Thematic Areas

This section of the Report contains a detailed analysis and graphic presentation of the results for each question from the separate thematic areas covered by the questionnaire.

4.1 Digital Connectivity Technology

The introductory section of the survey aimed at providing answers to whether the surveyed households are connected to the electricity grid, whether they have access to the Internet and what type of Internet access they use. In this section, respondents were also asked if the children younger than 18 in their household have access to the Internet at school, as well as whether and how often respondents need to use the Internet at their workplace. Additionally, in the first thematic area, respondents were asked if anyone in their household had a disability.

4.1.1 Access to electricity, television and the Internet in households

The analysis of the research data shows that all of the surveyed citizens (100%) are connected to the electricity grid and all of them have television in their homes (100%). Regarding the question about the Internet access, the majority of them (89%) answered positively, while 11% of them stated that they did not have Internet access. (Chart 1).

Based on the demographic characteristics of the respondents, it is noted that, of those who do not have access to the Internet, the majority are among the senior group 65+ years (35%), with primary education (33%) and the retirees (32%).

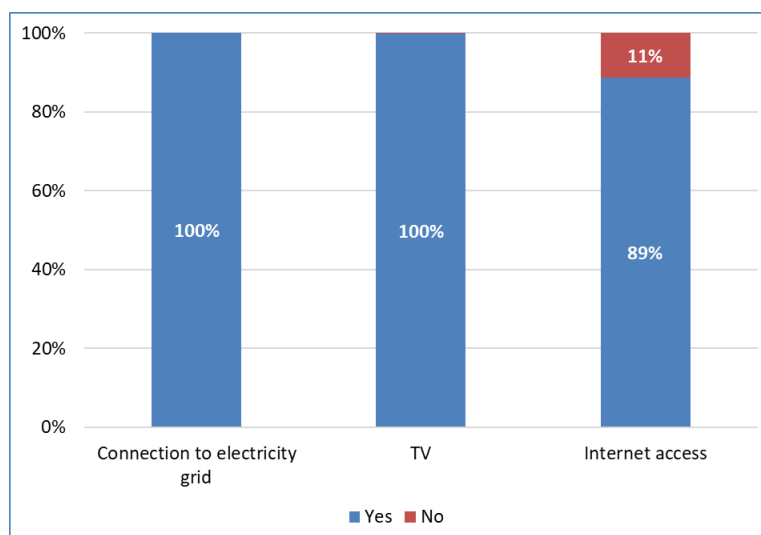


Chart 1 – Is your household connected to the electricity grid; television and access to Internet - %

Of the 89% of citizens who have access to Internet, two-thirds (66%) use cable Internet, over half (55%) use wireless Internet (Wi-Fi), while 32% use LTE/3G/4G/5G. (Chart 2).

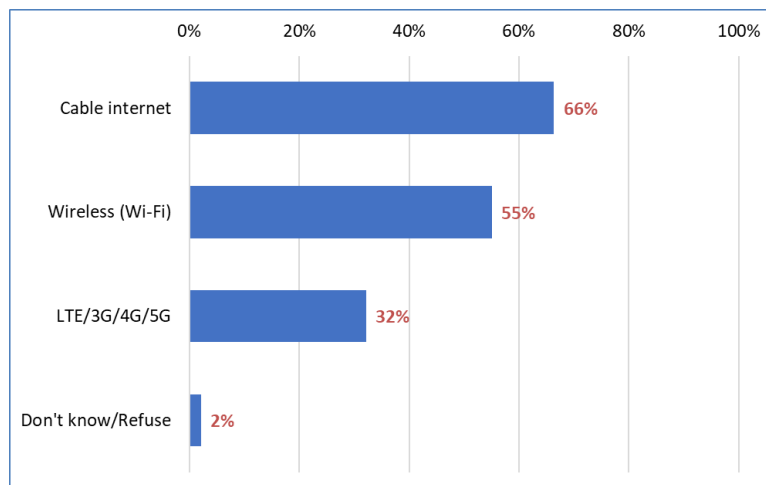


Chart 2 – What type of Internet connection does your household have - %

Less than two-thirds of respondents (63%) do not have children younger than 18 that go to school in their households, compared to 37% of households with school-going children younger than 18. (*Chart 3*).

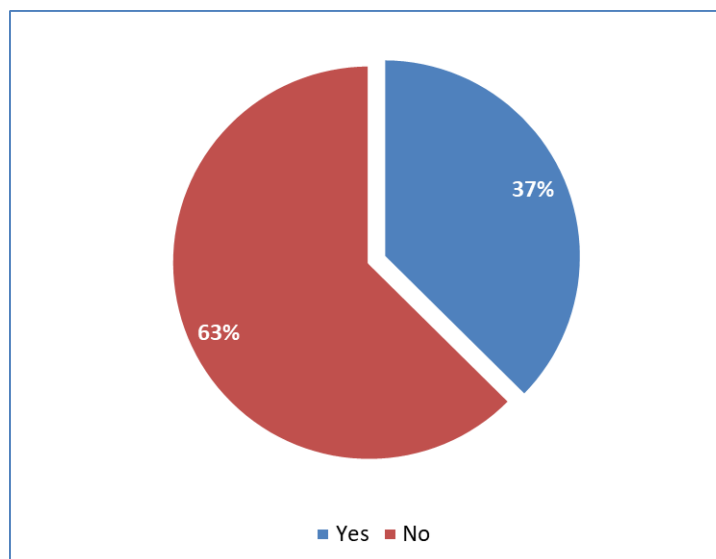


Chart 3 - Do you have children younger than 18 in your household that go to school? - %

Over one third of the respondents (36%) stated that the children from their household that go to school do not have access to a computer/tablet at school, against 35% of them who answered that they do. Additionally, 13% of respondents stated that children have access to a computer/tablet at school, but do not use it and 9% of respondents stated that children have access to a computer/tablet at school, but that it does not meet the student's needs. (*Table 1*).

Yes	35%
Yes, but they don't use them	13%
Yes, but it does not meet the needs of the student	9%
No	36%
I don't know/ Refuse to answer	7%

Table 1 – Do children in your household have access to a computer/tablet at school - %

Regarding the school computers' connectivity to the Internet, half (50%) of the respondents answered affirmatively, while 28% stated they did not have access and 22% of them did not know. A higher percentage (58%) of respondents who live in urban areas, confirmed that school computers are connected to the Internet, in contrast to respondents from rural areas (35%). Additionally, about a third (32%) of respondents in rural areas did not know the answer to this question or refused to answer. (Chart 4).

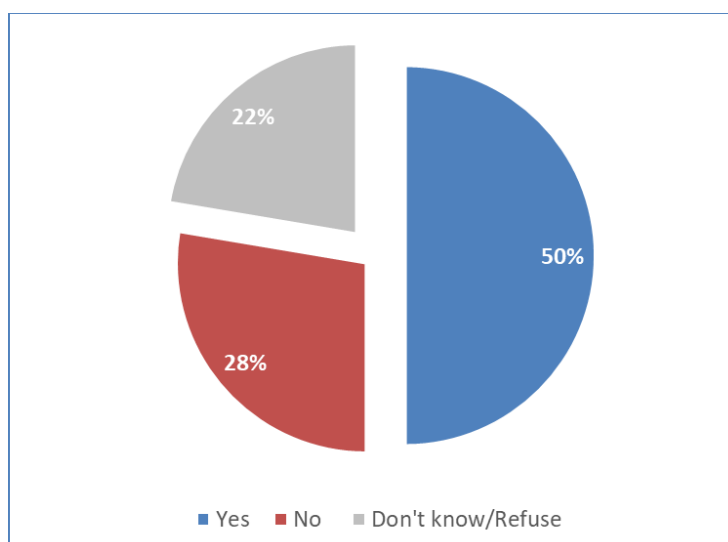


Chart 4 – Do school computers connect to the Internet – %

The data show that for more than half (54%) of the surveyed citizens, the Internet service provider does not offer free public wireless access in their area of living, while a quarter (25%) of them answered that they have free access, while 20% of the respondents did not know. (Chart 5). In addition, the analysis of the data by statistical regions indicates that the largest number of respondents, who stated that free public wireless access is offered in their area of residence, are from the Vardar region, unlike other regions where this percentage is significantly lower.

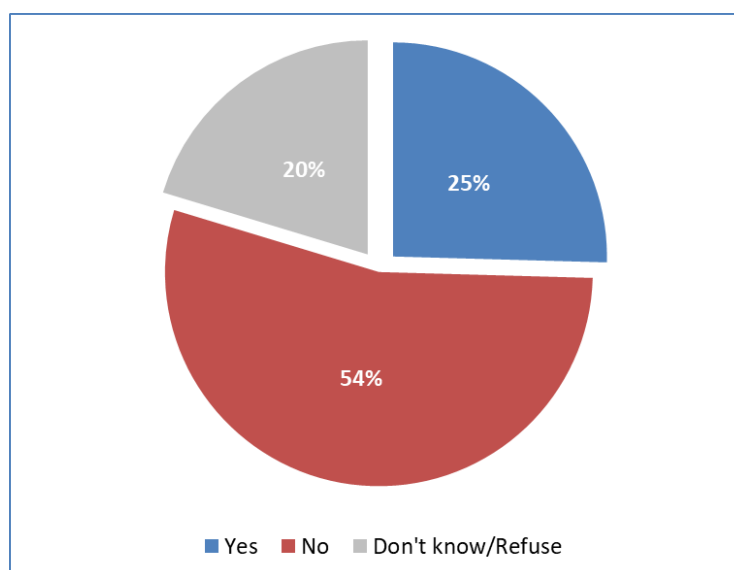


Chart 5 – Does an internet service provider offer public wireless access in your area (your neighbourhood, nearby park etc.) that is free to connect to - %

4.1.2 Digital workplace: computers and connectivity

Concerning the question whether respondents have a computer/laptop at their workplace that they personally use for work, 47% of them stated they were unemployed, while 29% of them have a computer/laptop, 14% do not need one for work and 10% do not have it. (*Chart 6*). When analysing the demographic data, it can be noted that citizens from urban areas (34%) use a computer/laptop at their workplace more often than the citizens in rural areas (21%). In terms of ethnicity, the percentage of Macedonians (33%) who use a computer at their workplace is higher, compared to Albanians (24%) and respondents from other ethnic groups (19%). In addition, the data indicate that more respondents (31%), who answered that there are no members with disabilities in their household, use a computer/laptop at their workplace compared to the (10%) respondents who stated that they or a family member had a disability.

Differences based on gender are also evident in the responses, especially in the percentage of respondents who stated that they do not need a computer at their workplace. Specifically, a higher percentage (18%) of men stated that they do not need a computer at their workplace, compared to women (11%).

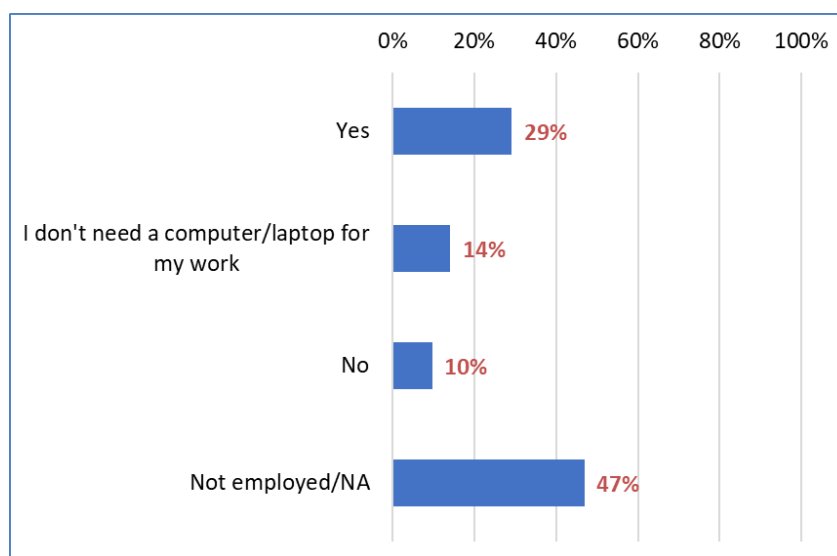


Chart 6 – Do you have a computer/laptop at your workplace that you personally use for work - %

The majority of respondents (72%) who have a computer/laptop at their workplace have access to the Internet, while 27% of them do not have access to the Internet. (Chart 7).

The analysis of the respondents' demographic characteristics reveals that a higher percentage of respondents living in urban areas (76%) have access to the Internet at their workplace, in contrast to the respondents in rural areas (64%). When analysing the gender of the respondents, although no statistically significant difference is observed, a small difference is evident: a higher percentage of women (75%) stated they have access to the Internet at workplace, when compared to (69%) of men.

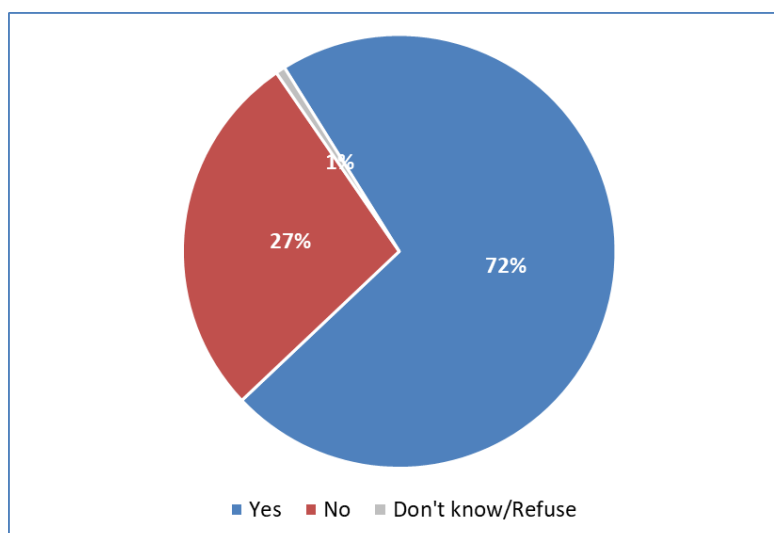


Chart 7 – Do you have access to Internet (wireless or cable) at your workplace - %

The data show that the majority (79%) of citizens, who have access to the Internet at their workplace, use it daily. (Chart 8). The demographic data show that statistically more respondents in the age category between 25-34 years (90%) and 35-44 years (82%) use the Internet at workplace daily, when compared to other age categories. In addition, there are differences in terms of education, where those with a higher education (93%) statistically use the Internet more daily at the workplace, in contrast to those with a secondary (64%) or primary education (60%).

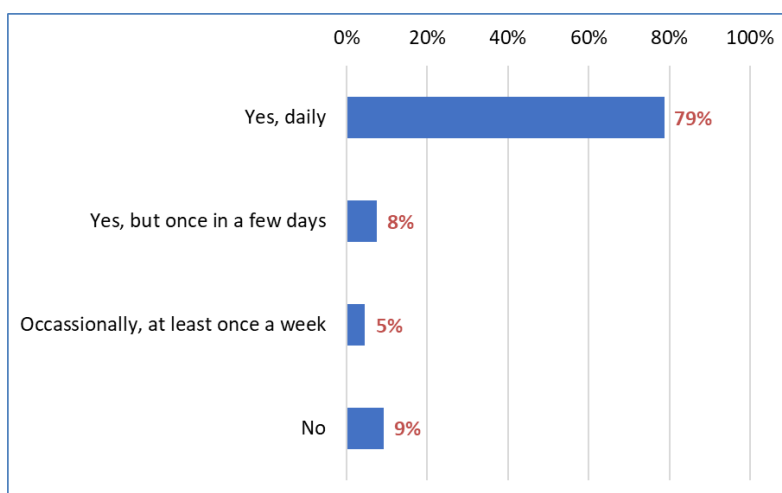


Chart 8 – Do you use internet at your workplace - %

4.2 Usage and Ownership of Digital Devices

The second thematic area of the survey aimed at providing information on the type of digital devices the respondents own in their household. Are there perhaps certain differences or obstacles in using and accessing digital devices? In addition, respondents were asked what they use the internet most for and if there is a specific group that is most vulnerable to digital exclusion in the community

More than two-thirds (67%) of the respondents stated that they have one TV set connected to digital television in their household, 46% of households have one laptop, while 35% of households have one desktop computer. The highest percentage of respondents answered that they do not have gaming devices/consoles in their household (87%). (Chart 9)

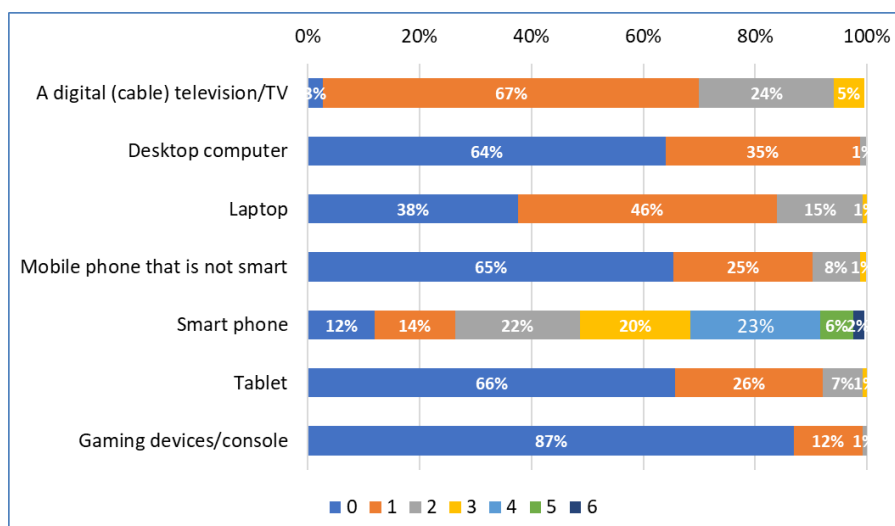


Chart 9 – How many of the devices listed are there in your household – %

The majority of respondents (88%) stated that smart phone is their personal device, while digital television (90%), desktop computer (86%), gaming devices (83%), and tablets (76%) are shared. (Chart 10). As for the desktop computers, the data indicate a higher percentage of women (90%) who consider it to be a shared device, compared to men (82%). The same goes for gaming devices/consoles

i.e. the percentage of women, who consider these to be a shared device, is again higher (92%) when compared to men (75%).

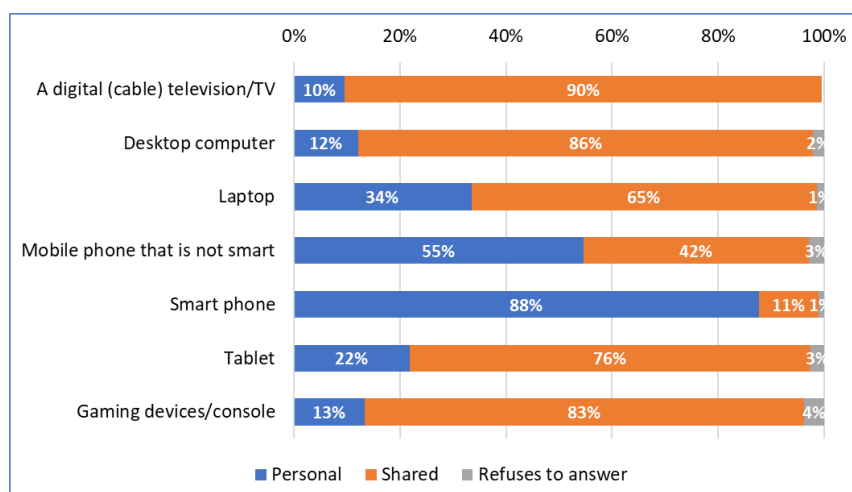


Chart 10 – For each device you have in your household, which one do you consider to be your personal device and which ones are shared – %

Regarding the type of devices the respondents have personally bought, the largest number bought a Smart phone (74%), while half of the respondents personally bought a laptop (57%), a mobile phone and a tablet (54%), as well as television (51%). (Chart 11). Analysis of the data for each type of the device reveals significant differences with respect to the respondents' gender, especially regarding personal purchase decisions. More specifically, a greater number of men stated that they personally purchased the device, compared to women:

- Digital (cable) television - men (67%) more than women (35%)
- Desktop computer - men (61%) more than women (33%)
- Laptop - men (68%) more than women (47%)
- Mobile phone - men (68%) more than women (38%)
- Smart phone – men (82%) more than women (66%)
- Tablet – men (66%) more than women (43%)
- Gaming devices/Console – men (59%) more than women (31%)

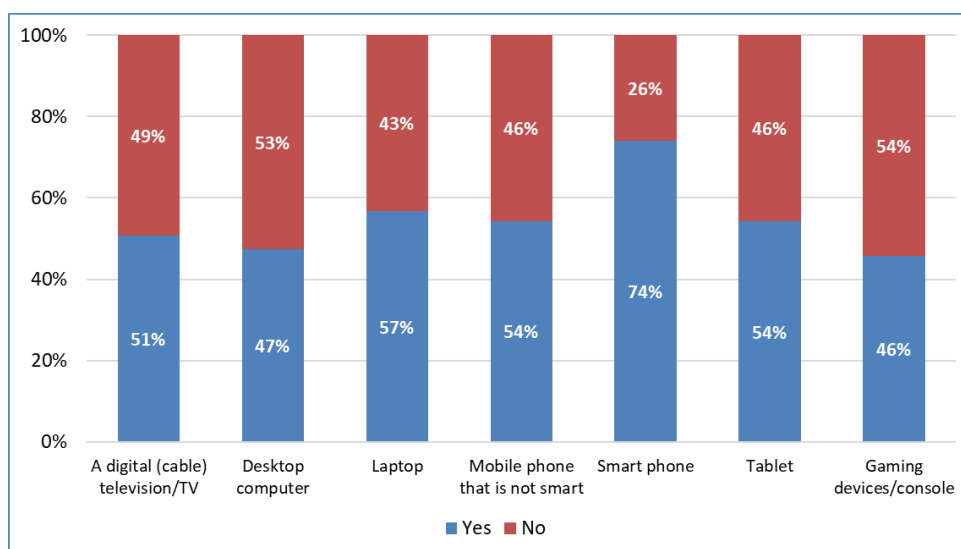


Chart 11 – Did you purchase any of the devices personally – %

4.2.1 Access to Technology, Use and Inclusion in Households

When asked if they needed permission to use any of the devices they have in the household, the great majority of respondents (98%) stated that they do not need it, and only 2% of them that they do. (Chart 12). Based on the age category, permission is needed more by the youngest respondents (18-24 years), unlike other age categories.

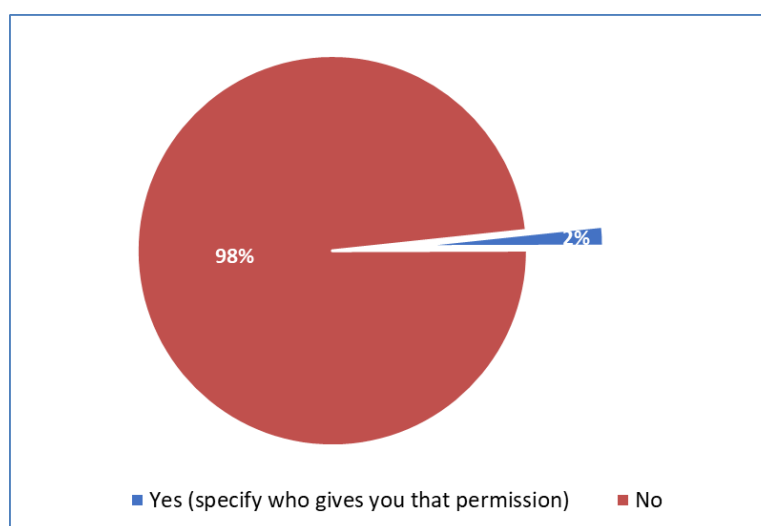


Chart 12 – Do you need permission to use any of the devices you mentioned previously your household has – %

The largest number of respondents (46%) who need permission to use the devices, get it from their parents, followed by 38% from their children and 8% from a brother-sister or husband-wife. (Table 2).

Parents (Mother-Father)	46%
Children (son - daughter)	38%
Brother - Sister	8%
Husband - Wife	8%

Table 2 Yes, specify who gives you that permission - %

For the majority of respondents (95%), there are no differences between men and women in their household in terms of access to or use of digital devices. (Chart 13).

The analysis according to the demographic data indicates certain differences. Namely, the percentage of ethnic Macedonians (98%), who state that there are no differences in their household is higher when compared to respondents from the Albanian ethnicity (89%) as well as other ethnicities (91%). Furthermore, the number of respondents from the Polog Region, who stated that there are differences in their household, is larger compared to all other regions where the percentage is significantly lower.

Additionally, according to the level of education, the percentage of respondents with primary education (8%), who answered that there are differences in their household. is higher, in contrast to respondents with secondary (3%) or higher education (5%).

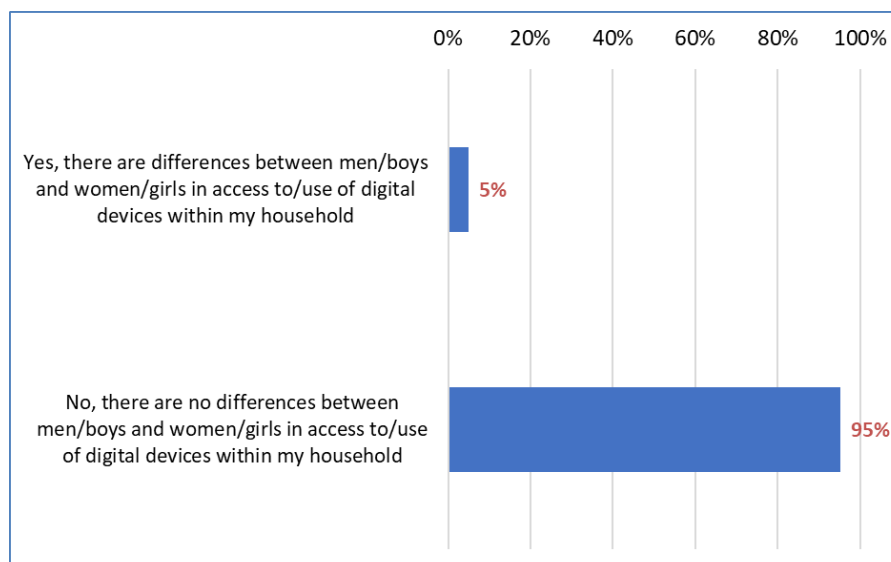


Chart 13 – Is there any difference between men/boys and women/girls in access to and use of digital devices within your household – %

Regarding the main reasons for the differences in the access and use of digital devices within households, about a quarter (26%) of the respondents who answered that there are differences, stated that the women/girls in their household have less digital skills, and additional 23% report that men/boys are more interested in using digital devices. (Table 3).

• <i>Women/girls within my household have no/less digital skills</i>	26%
• <i>Men/boys within my household are more interested in using digital devices and computing resources</i>	23%
• <i>Digital devices and computing resources are limited and women and girls have preferential access within my household</i>	18%
• <i>Digital devices and computing resources are limited and men and boys have preferential access within my household</i>	10%
• <i>Women/girls within my household are more interested in using digital devices and computing resources</i>	8%
• <i>I don't know/Refuses to answer</i>	8%
• <i>Men/boys within my household have no/less digital skills</i>	3%
• <i>Women/girls within my household have no need to use digital devices in our household</i>	3%
• <i>Men/boys within my household have no need to use digital devices</i>	3%

Table 3 – What is, in your opinion, the main reason behind these differences related to access to and use of digital devices within your household - %

Most of the respondents use digital devices to connect to the Internet. The largest percentage of them connect to the Internet through their Smart phone (95%), followed by a tablet and laptop (91%). In addition, 85% connect through their desktop computer and 67% through their digital TV. (Chart 14).

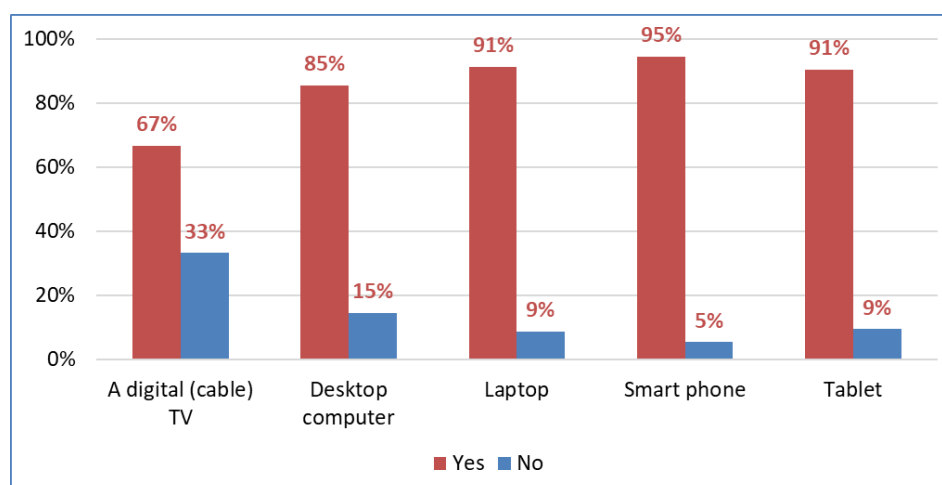


Chart 14 – What devices do you use to connect to internet at home – %

The majority of the respondents (73%) use the Internet and digital devices on a daily basis, while 11% use them on a weekly basis. In addition, 12% of the surveyed citizens stated that they never use the Internet. Although no significant statistical differences were observed between men and women, according to the data obtained, women show a higher probability of more frequent use of the Internet and digital devices on a daily basis (76%), compared to men (70%). Furthermore, the data indicate a higher number of respondents from rural areas (16%) who do not use the Internet, in contrast to respondents who live in urban areas (10%). Concerning the age categories, it is noted that those who never use the Internet are among the oldest group (65+ years) (Chart 15).

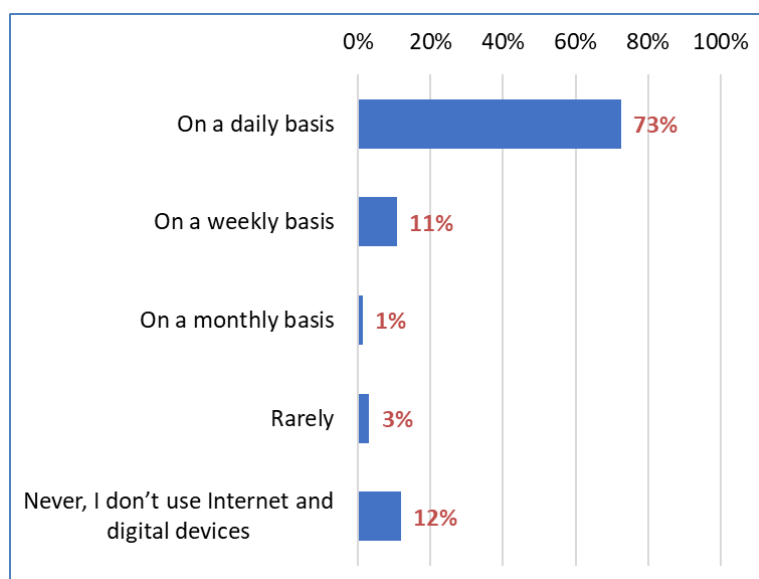


Chart 15 – How frequently do you use the internet and digital devices– %

More than half of the respondents (61%) who never use the Internet (12%) stated that it is because they do not need to, 40% of them stated that they do not know how to use a device and 22% do not know how to surf on the Internet. (Table 4).

<i>Do not need the Internet</i>	61%
<i>I don't know how to use a device</i>	40%
<i>I don't know how to surf on the internet</i>	22%
<i>Cost of the equipment is too high</i>	11%
<i>I choose not to use the Internet</i>	11%
<i>Cost of the service is too high</i>	10%
<i>I don't have time to use the Internet</i>	8%
<i>Cultural reasons</i>	3%
<i>It is not in my native language or another language that I know</i>	3%
<i>Because of privacy or security concerns</i>	2%
<i>Internet service is not available in the area</i>	2%
<i>Internet service is available but it does not correspond to household needs</i>	1%

Table 4 – What are the reasons you never use Internet and digital devices - %

The largest number of citizens mostly use the Internet to communicate with lots of people (79%), that is, using applications such as WhatsApp and Viber, as well as accessing and using social networks. Furthermore, a large part of them also use the Internet for communication which is mainly "one to one" (73%) and over half (51%) of the respondents for various information seeking (Chart 16).

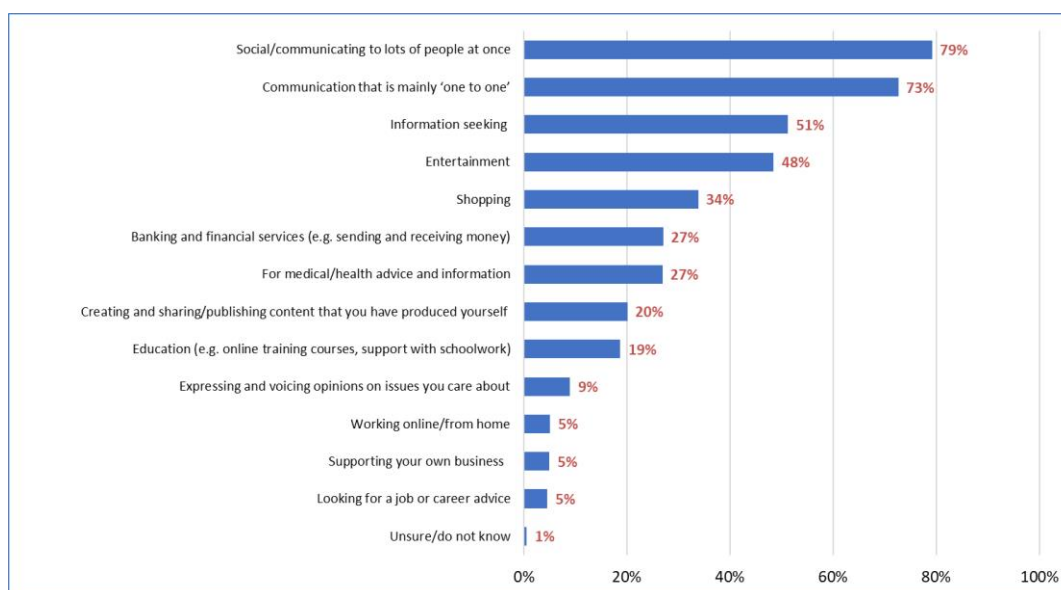


Chart 16 – What do you use the internet for – %

Approximately two-thirds (64%) of respondents have an e-mail address, while about one-third (31%) of them confirmed that they do not use one. (Chart 17). When it comes to the place of living, the data show that a higher percentage of respondents from urban areas (69%) have e-mail addresses, in contrast to those who live in rural areas (56%). In addition, it is noted that more respondents from the Macedonian ethnicity (69%) have e-mail addresses, in comparison to the respondents from the Albanian ethnic group (57%).

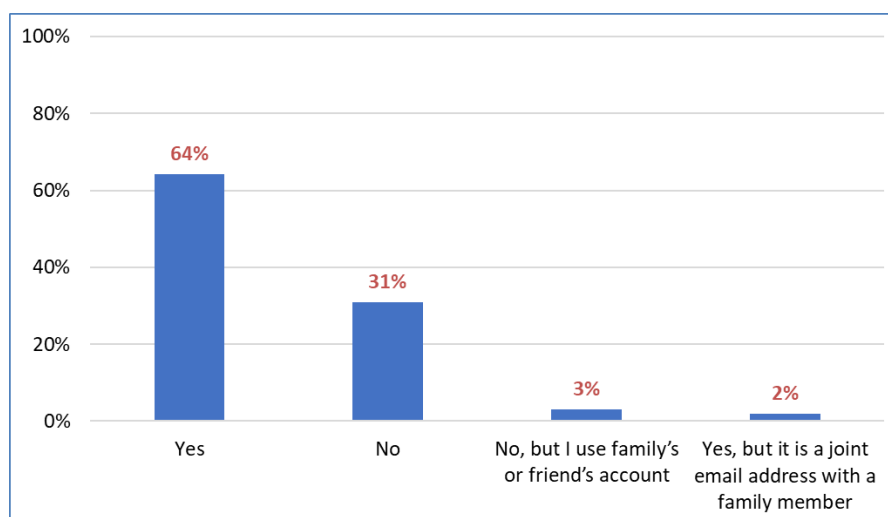


Chart 17 – Do you have an e-mail address – %

4.2.2 Challenges for Digital Inclusion

About one quarter (26%) of respondents believe that low-income households, as well as seniors over 60, are the most vulnerable group to digital exclusion in the community, and 22% of them believe that it is the individuals with some disabilities. (Chart 18).

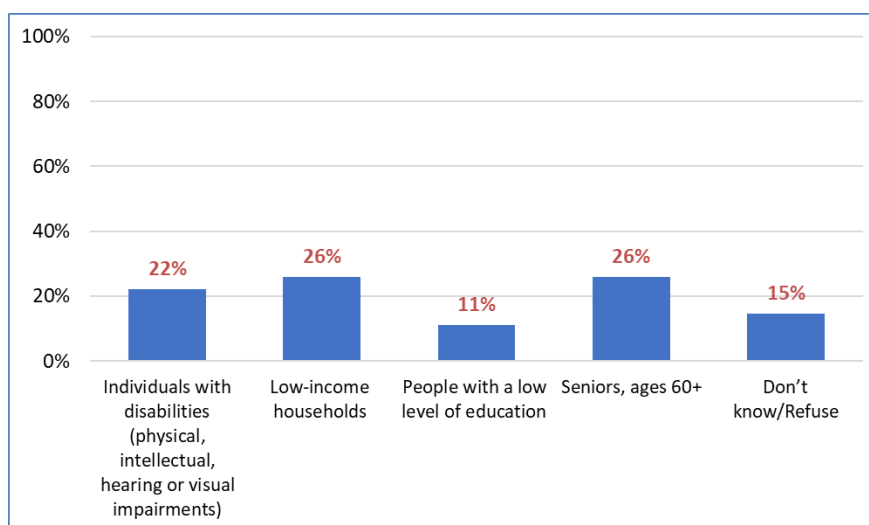


Chart 18 – Which of these groups is the most vulnerable to being digitally excluded in your community– %

Almost half of the respondents (49%) believe that there are no obstacles or barriers for women and girls to access digital technologies or participate in digital life. 20% consider that lower income can be an obstacle, 18% mention the cost of the equipment or device, 17% consider the weaker digital skills of women to be an obstacle, 16% the cost of the service and 9% the availability. (Chart 19). When analysing the demographic data, certain differences can be observed. Namely, the number of Macedonians (55%) who believe that there are no obstacles faced by women in accessing digital technologies is higher, in contrast to the Albanian ethnicity (36%). In addition, the number of respondents with higher education (60%), who believe that there are no obstacles, is also higher when compared to the respondents with secondary (50%) and primary education (36%).

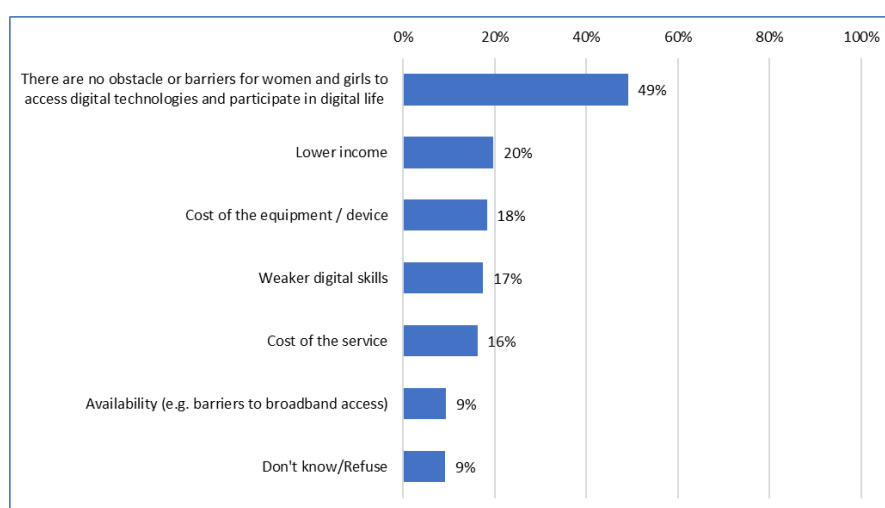


Chart 19 – The main obstacles and barriers faced by women and girls to access digital technologies – %

4.3 Digital Literacy Skills

The purpose of this thematic area of the survey was to investigate the citizens' perception of their personal assessment concerning their digital skills. They were also asked which tools they use for online communication

and information sharing. In addition, in this thematic section, respondents who have a disability or have a member of their household with disability were asked if they have access to assistive information technology

When asked how they would rate their digital skills, over half of the respondents consider themselves competent (very competent + somewhat competent) regarding the following: using social media networks (62%), using a search engine (60%), and communicating with others through various digital applications (57%).

According to their own assessment, the respondents rate their digital skills as weakest i.e. they consider themselves incompetent or do not have knowledge, in relation to the following: Using HTML and basic coding (71%), using virtual and augmented reality (70%), setting up website and domain (67%). (Chart 20).

The analysis by demographic data shows that the younger population aged 18-44 rates their digital knowledge higher for most of the skills unlike other age categories, over 45.

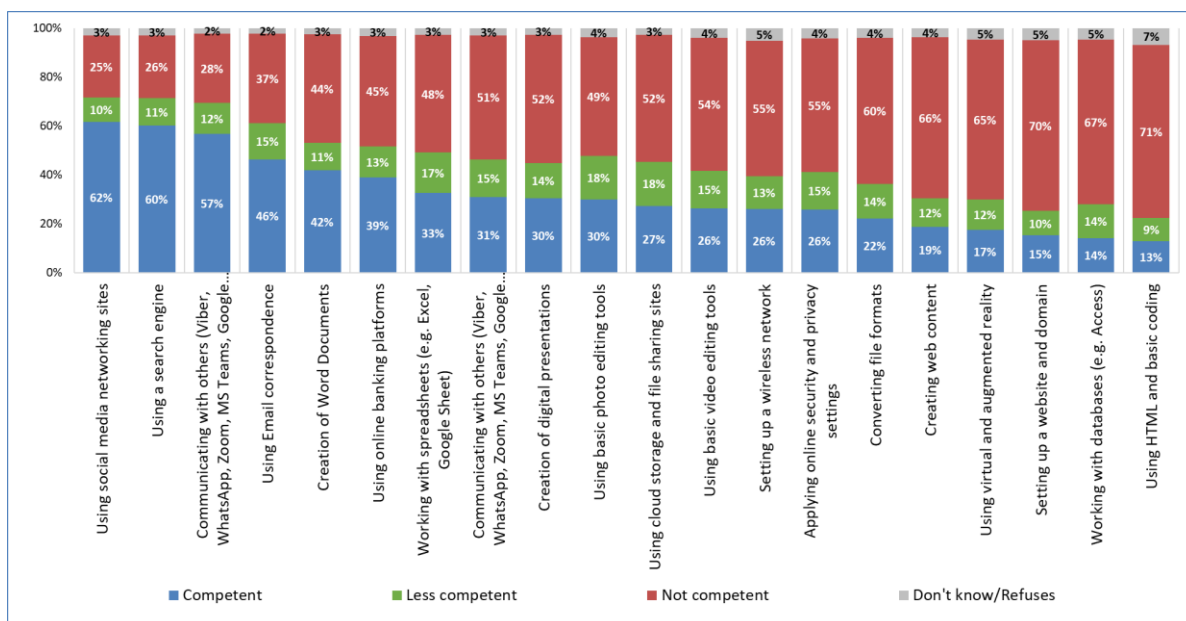


Chart 20 – How would you rate your digital skills – %

Viber is a tool for online communication that most respondents (89%) use or have heard of, followed by Skype and WhatsApp more than half use or have heard of(54%), while 43% of them mentioned Zoom and 41% Google meet. Only 3% of respondents do not use any online communication tool. (Chart 21).

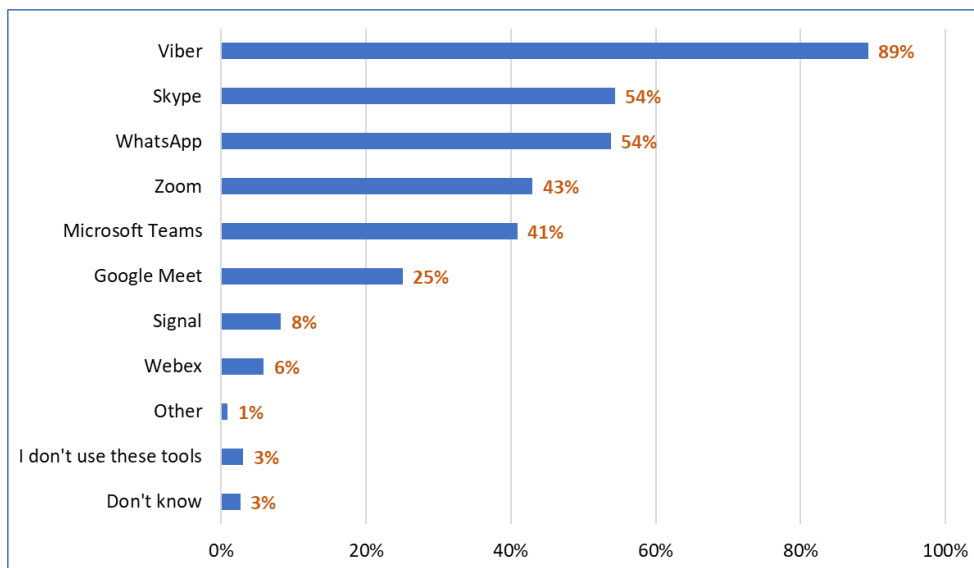


Chart 21 – What online communication tools are you familiar with or you have heard about – %

The data obtained show that Facebook (71%) is the most used social media network, followed by more than one-third (40%) of respondents who use Instagram and one-third (33%) use Youtube and WhatsApp. The demographic characteristics of the respondents indicate that the youngest population aged 18-24 years uses Instagram in a higher percentage than other age categories. (Chart 22).

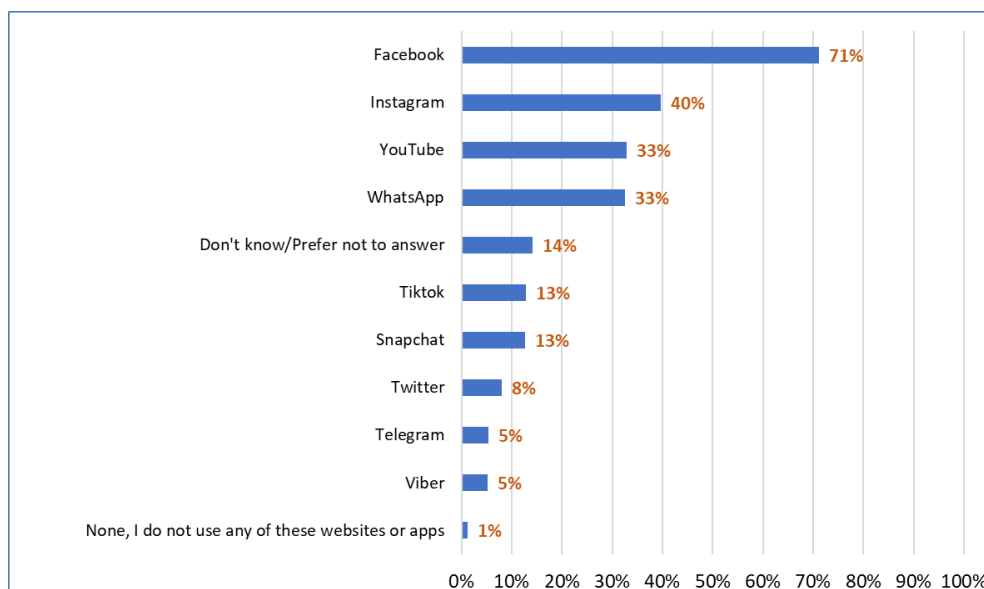


Chart 22 – Which social media do you use to communicate or share information with others – %

4.3.1 Inclusive Access to Technology: assessment of disabilities and access to assistive information technology

When asked if someone in the household had a disability, most of the surveyed citizens (91%) answered that they do not, while 4% of them stated that a family member has a certain disability, and 2% stated that they personally have a disability. (Chart 23).

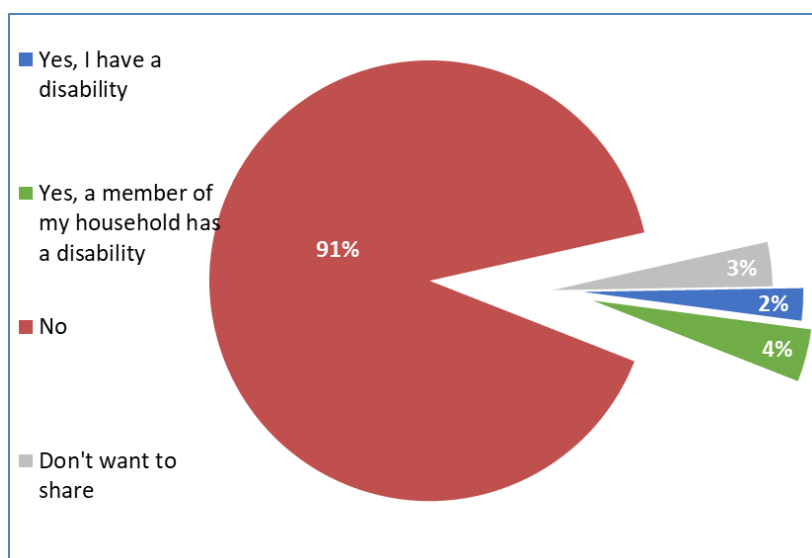


Chart 23 – Do you or someone in your household have a disability – %

Of the respondents who stated that they or a member of the household has a disability (6%), the largest number have a physical disability (66%), followed by an intellectual disability (22%), visual impairments (18%), hearing impairments (12%) while 8% refused to answer. (Table 5).

Physical	66%
Intellectual	22%
Visual impairments	18%
Hearing impairment	12%
Refuse to answer	8%

Table 5 – What type of disability do you or a member of your household have - %

Of the approximately 6% of citizens who have a disability or have a member of their family with disability, most (76%) stated that they did not have access to assistive information technology, while 6% did and 18% stated that they did not know. (Chart 24). About two-thirds (67%) of these respondents (6%) gained access through an NGO, while one-third (33%) used it at home and purchased it themselves.

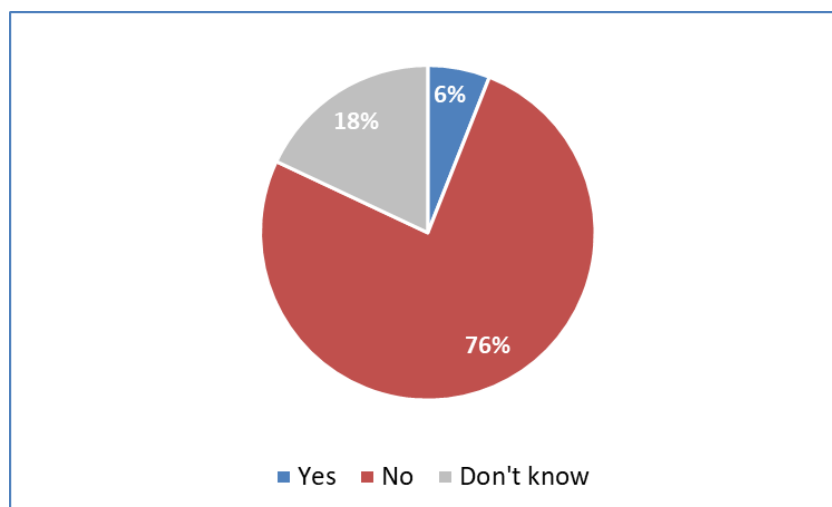


Chart 24 - Do you have access to Assistive information technology

4.4 Digital Wellbeing

This part of the research was aimed at providing information about the citizens' assessment regarding the effect the Internet has on them, i.e. whether it affects them positively or negatively. What is their motivation for new technological solutions and what is their general perception of digital technology? Additionally, they were asked if they felt safe online, the place they would go to for help if they felt threatened, and what their thoughts were regarding the biggest threat they could face online.

For 46% of the respondents, the Internet has a positive impact, about a third (34%) consider that the impact of the Internet is neutral, while 5% believe that the Internet affects them negatively. (Chart 25). There is a higher percentage of women (50%) who believe that the Internet has a positive effect on them, in comparison to men (42%), whose percentage is lower. Also, the youngest citizens (18-24 years old) believe that the Internet has a positive impact, unlike other age categories.

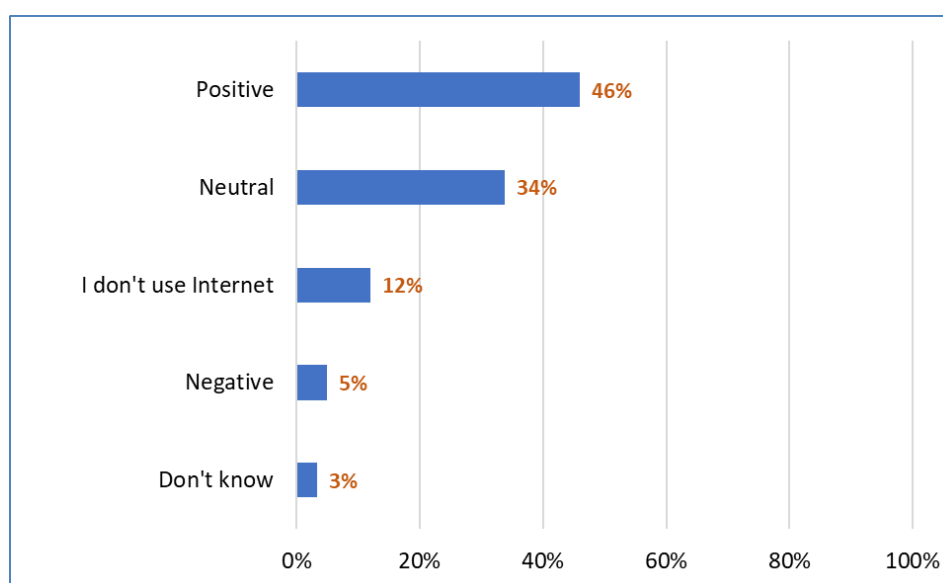


Chart 25 – What impact do you think the Internet is having on you – %

More than a third (36%) of the respondents stated that they are motivated to accept new technological solutions, against 33% who are not motivated and 28% who consider themselves somewhat motivated. (Chart 26). When the demographic characteristics are observed, it can be noted that the respondents from urban areas (40%) are more motivated than the ones living in rural areas (28%), as well as respondents of the Macedonian ethnicity (40%), in contrast to citizens of the Albanian ethnicity (26%). In terms of age, the youngest respondents (18-24 years old) are more motivated than other age categories where the percentage is significantly lower.

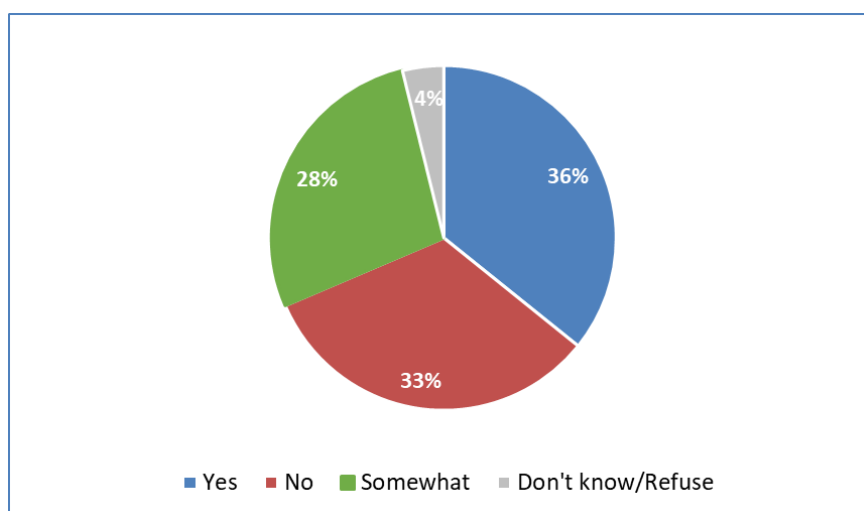


Chart 26 – Are you motivated to embrace new technology solutions – %

A large proportion of surveyed citizens (60%) agree (strongly agree + agree) that digital skills are mandatory in today's adult education/training, 20% disagree (disagree + strongly disagree), and 15 % are neutral (neither agree nor disagree). Furthermore, more than half of respondents (59%) agree (strongly agree + agree) that advances in technology, such as computers, have made tasks such as data input and processing easier, 21% of them disagree (disagree + strongly disagree), while 14% are neutral (neither agree nor disagree). Half of the respondents (50%) stated that they agree (strongly agree + agree) with the statement referring to them enjoying using digital technology, 25% disagree (disagree + strongly disagree), and 22% are neutral (neither agree nor disagree). (Chart 27).

The demographic data of the respondents show that citizens from urban areas to a greater degree agree (completely agree + agree) with each of the statements, contrary to citizens living in rural areas.

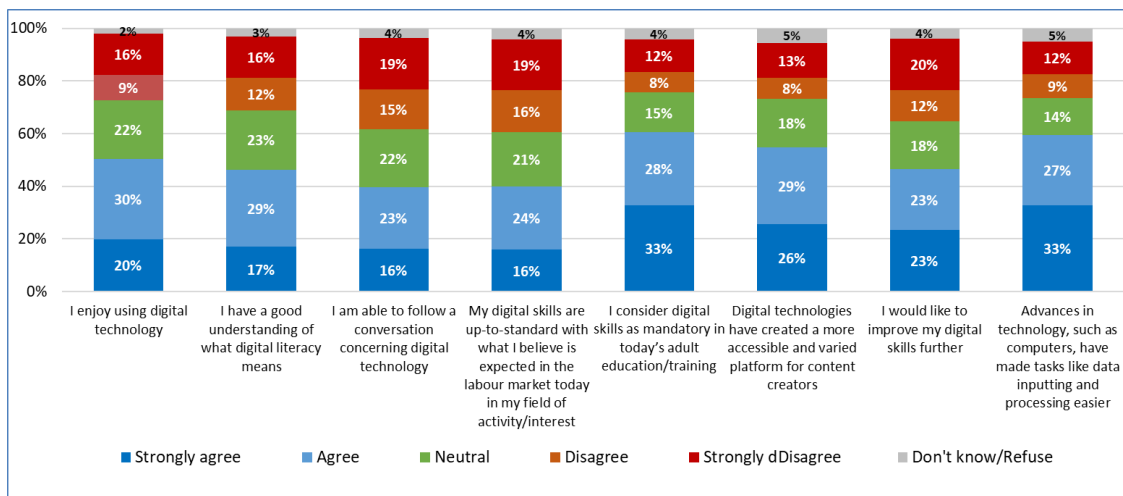


Chart 27 – To what extent do you agree or disagree with the following statements– %

The data shows that over half (58%) of the respondents feel safe (very safe + somewhat safe) online, while a quarter (27%) feel unsafe (somewhat unsafe + very unsafe). (Chart 28).

The analysis of demographic data shows that Macedonians (59%) feel safer (very safe + somewhat safe) than Albanians (51%), while, looking at the age category, it is observed that the youngest citizens (18-24 years) feel safer (very safe + somewhat safe) compared to other age categories.

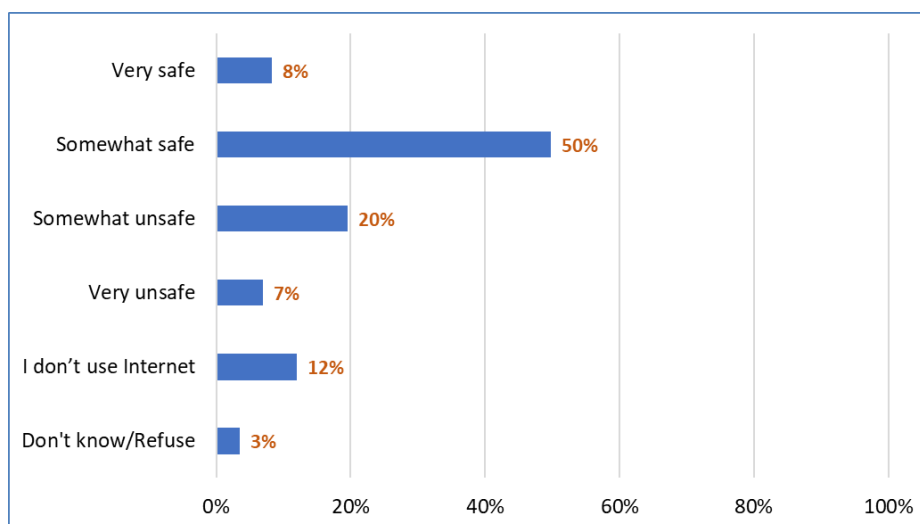


Chart 28 – Do you feel safe online – %

Of the respondents who answered that they feel unsafe (somewhat unsafe + very unsafe) online (27%), the majority (69%) indicated the police as the first institution they would ask for help if they felt threatened, while 19% think they would not ask anyone for help. (Table 6).

The police	69%
I will not ask for help from anyone	19%
The platform you were threatened on	10%
My teacher/ school	1%

Table 6 If you felt threatened online, which is the first institution to reach out to for help -%

The largest percentage of respondents who feel unsafe (somewhat unsafe + very unsafe) online (27%), consider fraud as the biggest threat online (62%), with significantly more men (70%), contrary to women (56%). Further, over a third (38%) feel unsafe about someone using their photos inappropriately with, again, more women (43%) stating that this is the biggest threat to them, compared to men (32%). Finally, 21% cited unwanted sexual approaches on a social networking site or by email as the biggest threat. (Table 7).

Fraud	62%
Someone using my photos in an inappropriate way	38%
Unwanted sexual approaches on a social networking site or an email	21%
Don't know/Refuses to answer	18%
Coming across sexual image or content	17%
Bullying or harassment	13%

Table 7 What do you think is the biggest threat to you when you go online -%

More than half of the respondents (55%) stated that they have never experienced anything unwanted online. 21% answered that they were faced with disinformation, 11% with hacking, and 10% with coming across sexual images and content. (Chart 29). The percentage of women who have come across sexual images and content online is significantly higher (12%), in contrast to men (8%).

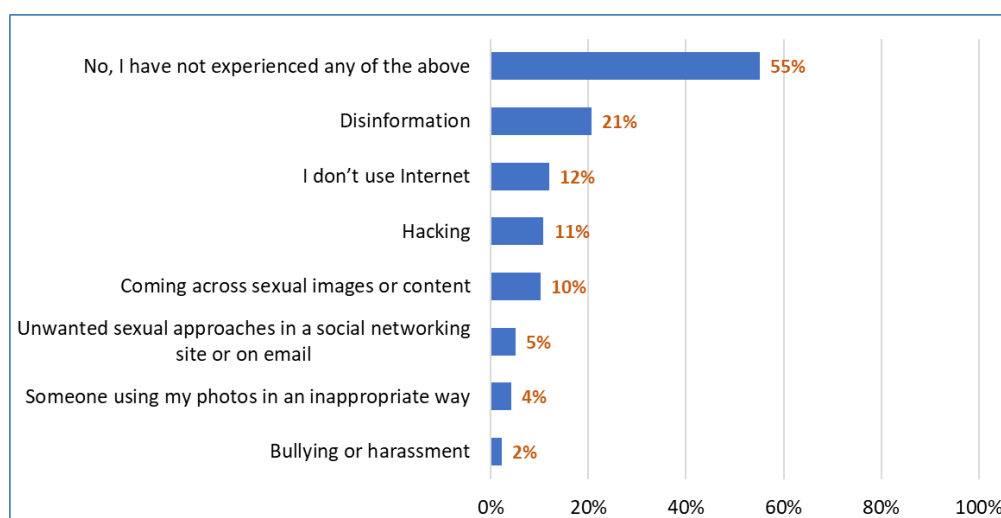


Chart 29 – Have you ever experienced any of the following online – %

4.5 Digital Public Services

This part of the survey was aimed at obtaining information about citizens' assessment of the central and local government in using digital technology. How satisfied the citizens are in the process of using public services, in person or online, and how they evaluate their experience. Furthermore, they were asked what services they would like to be provided on the e-Uslugi platform and what services they would like to be improved. In addition, they were asked to provide their opinion about whether the web services provided by the government are accessible to persons with disabilities.

The data show that approximately one quarter of citizens (24%) think that the central government is effective (scores 4 and 5) in using digital technology, 21% consider it ineffective (scores 1 and 2), while more than a third (35%) of the respondents gave a medium score (3). (Chart 30). In addition, it is noted that men (25%) believe that the central government is ineffective (scores 1 and 2), compared to women (18%). When examining the ethnicity aspect, Macedonians (23%) believe that the central government is ineffective (scores 1 and 2) in using digital technology, contrary to citizens from the Albanian ethnicity (15%).

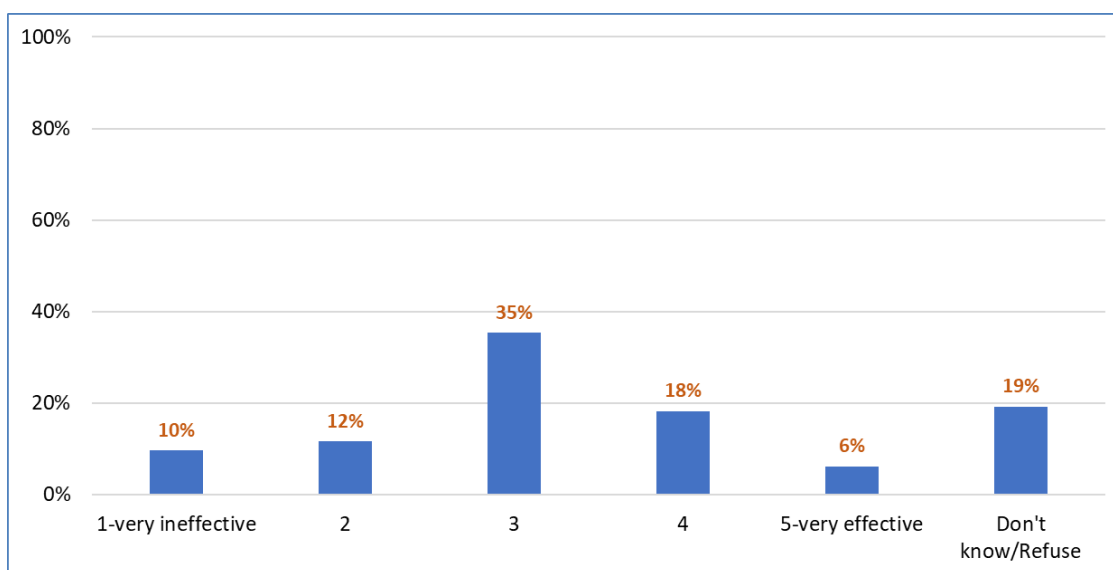


Chart 30 – How effective do you think the central government has been in using digital technology – %

When it comes to local government, 21% of citizens consider it effective (scores 4 and 5) in using digital technology, 27% of citizens consider it ineffective (scores 1 and 2), while 31% gave an average score (3). (Chart 31). Again, in terms of ethnicity, Macedonians (30%) believe that the local government is ineffective (scores 1 and 2) in the use of digital technology, compared to citizens from the Albanian ethnic group (22%).

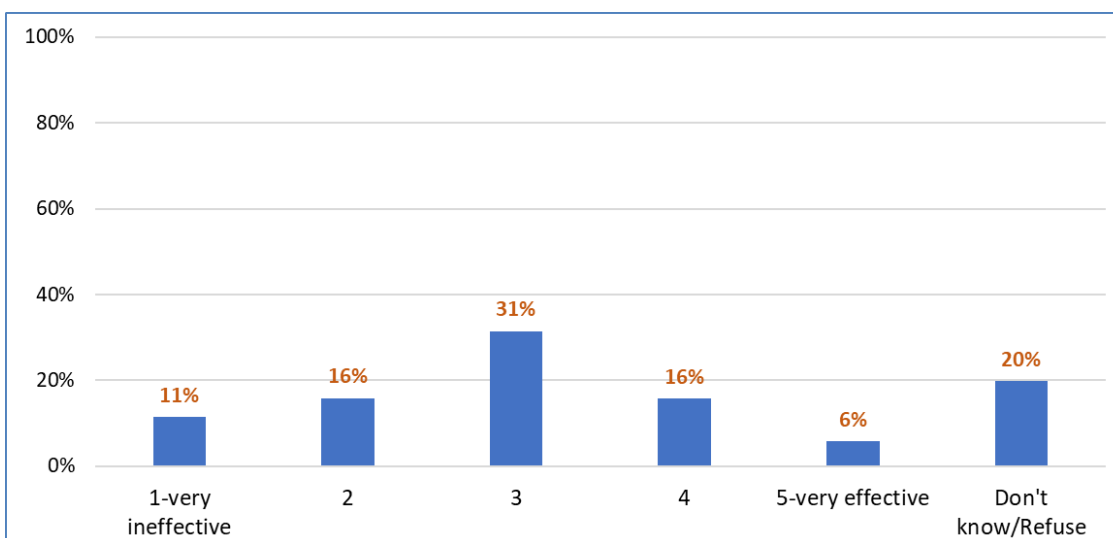


Chart 31 – How effective do you think your municipal government has been in using digital technology– %

In the past 12 months, 46% of citizens had to go in person for health services, 43% also needed an ID or passport and a quarter of citizens (25%) went in person for vehicle registration. (Chart 32).

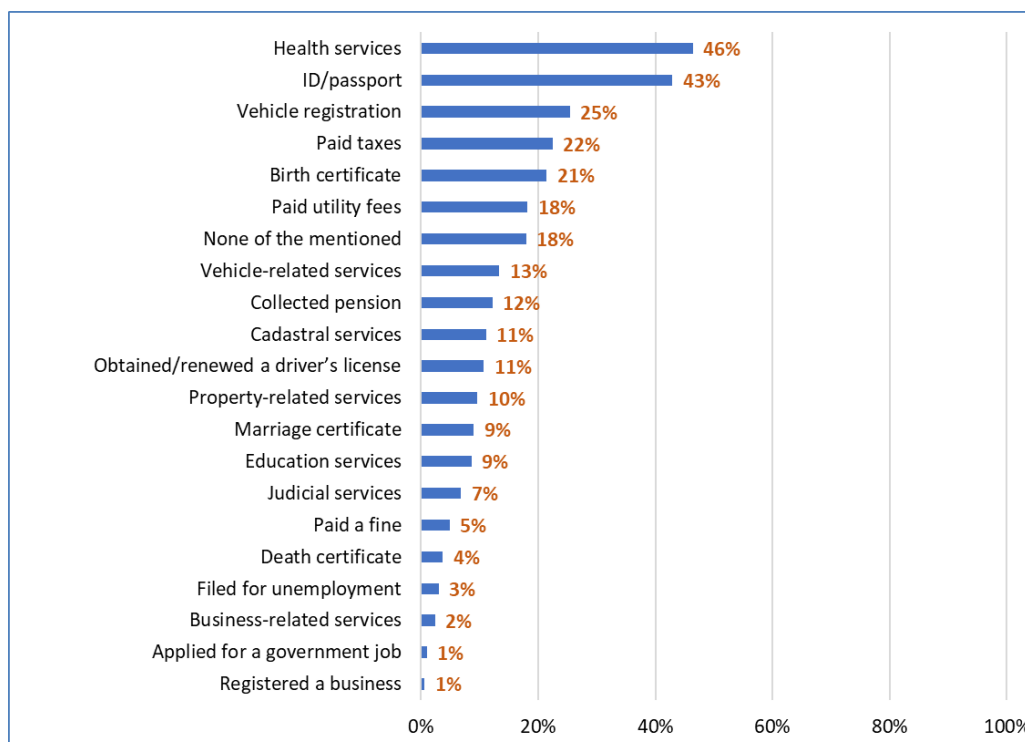


Chart 32 – What types of government/public services have you used in the past 12 months in-person – %

The majority of respondents (71%) are satisfied with the experience they had with the public services they used in the past 12 months, while 24% of them are dissatisfied. (Chart 33).

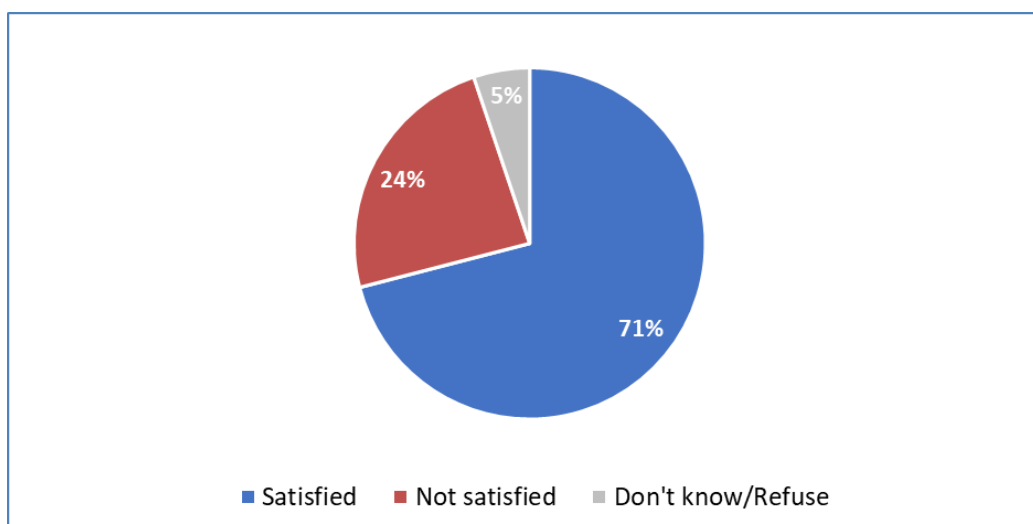


Chart 33 – What was your experience of obtaining these services in-person – %

Of the respondents who are not satisfied (24%) with obtaining public services, the majority indicate too long of a wait to obtain the service (63%) as the reason. Further, 43% are dissatisfied because the officials were rude and not welcoming, 41% are dissatisfied because it was too crowded, 40% because

there was uncertainty when the service will be received and 26% because of the presence of lot of people in the office, i.e. it was impossible to maintain a distance between each person. (Table 8).

<i>Too long of a wait to get the service</i>	63%
<i>Officials were rude and not welcoming</i>	43%
<i>It was too crowded</i>	41%
<i>Uncertainty when you will receive the service</i>	40%
<i>A lot of people in the office/line, impossible to maintain a distance between each person</i>	26%

Table 8 What were the reasons you were not satisfied - %

4.5.1 Use of the national e-Uslugi platform, satisfaction levels and potential areas for improvement

More than half (55%) of the respondents answered that they have not used the national e-Uslugi platform, 16% confirmed that they have used it, while 29% of the citizens have not heard of this platform. (Chart 34). From the total number of respondents who used e-Uslugi (16%), significant differences can be observed concerning the place of living. More specifically, the platform was used more by respondents from urban areas (20%), as opposed to respondents living in rural areas (11%). In addition, the data shows that more than half (53%) of the respondents, who used the platform, needed personal documents and licences, 33% of them services in the area of education and training, and 21% health services. (Table 9).

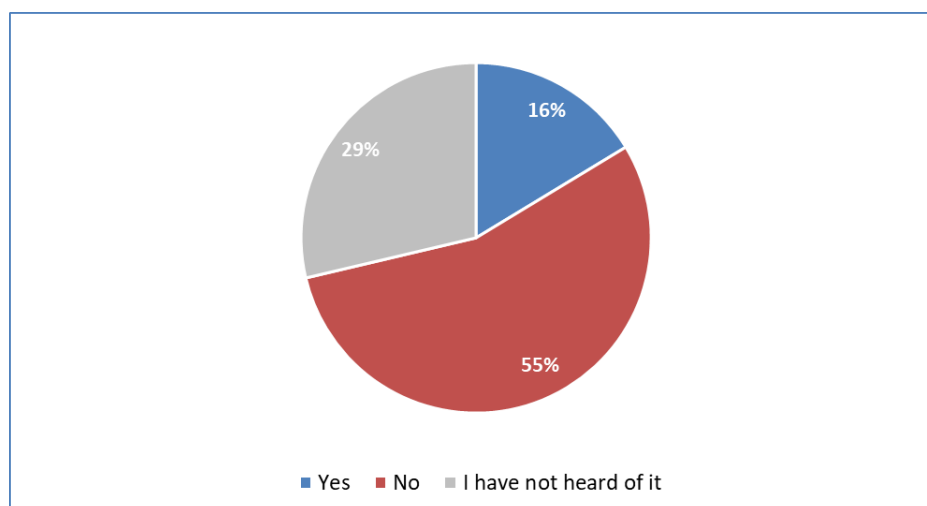


Chart 34 – Have you ever used the national e-Uslugi platform –%

<i>Personal documents and licences</i>	53%
<i>Education and training</i>	33%
<i>Healthcare</i>	21%
<i>Care and social welfare services</i>	13%
<i>Housing and property</i>	13%
<i>Taxes and public fees</i>	12%
<i>Family and kids</i>	11%
<i>Transport and Communications and Environment</i>	11%
<i>Culture, sports and recreation</i>	8%
<i>Travel and transport</i>	8%
<i>Jobs and employment</i>	7%
<i>Migration and visas</i>	5%
<i>Judiciary and human rights</i>	2%
<i>Energy</i>	2%
<i>Management</i>	2%
<i>Security and Defence</i>	1%

Table 9 Which online service clusters have you used in the e-Uslugi platform - %

Regarding their experience in obtaining these services, most of them (61%) were satisfied with the online services, while 21% of them stated that they had technical difficulties with the website. (Chart 35).

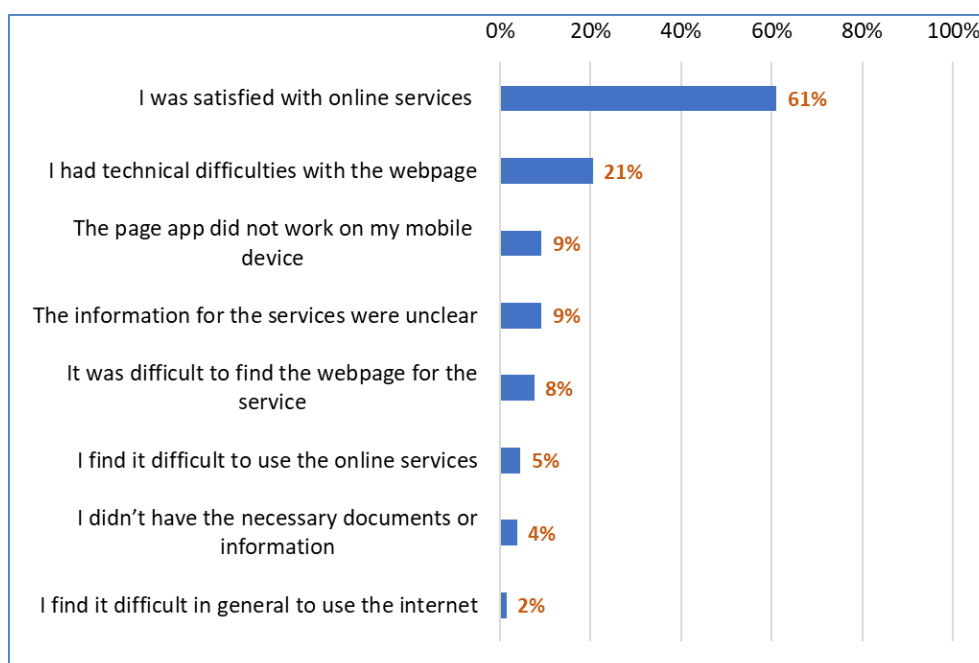


Chart 35 – What was your experience in obtaining these services online –%

Of the 16% of citizens who have used the e-Uslugi platform so far, the majority (63%) of them would like the platform to additionally provide tax payment services, 44% of respondents would like civil registry services, 41% vehicle registration and more than a third (35%) would like to make payments for utility services, to be provided with cadastral, geodetic and property services, as well as services for legal property issues. (Chart 36).

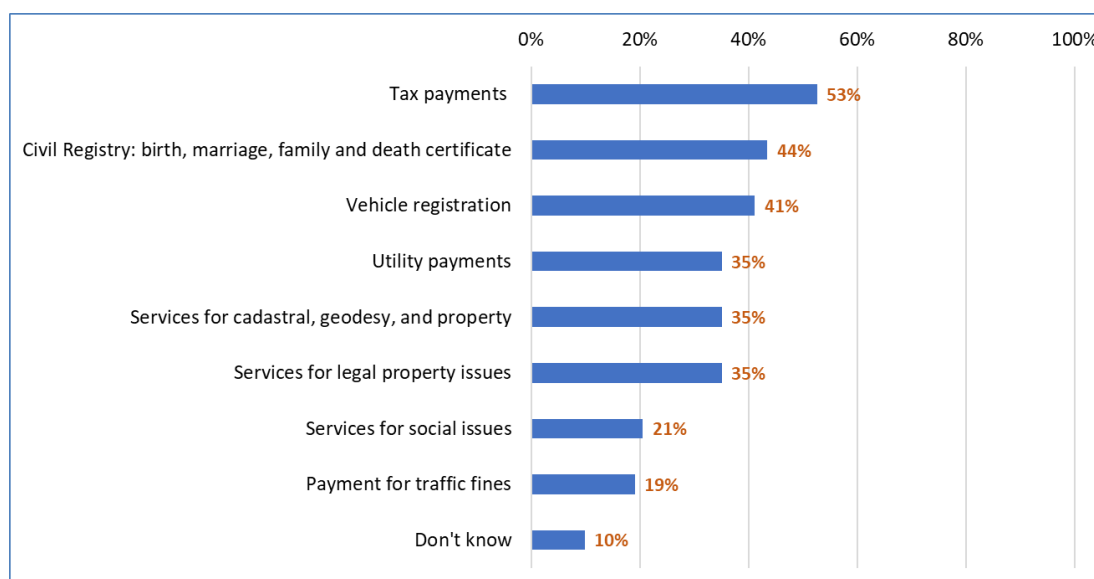


Chart 36 – What services would you like to be also provided in the e-Uslugi platform –%

More than half of the citizens who have used the e-Uslugi platform so far (16%) would like the platform to be made simpler to use (57%) and more services to be added (55%). (Chart 37).

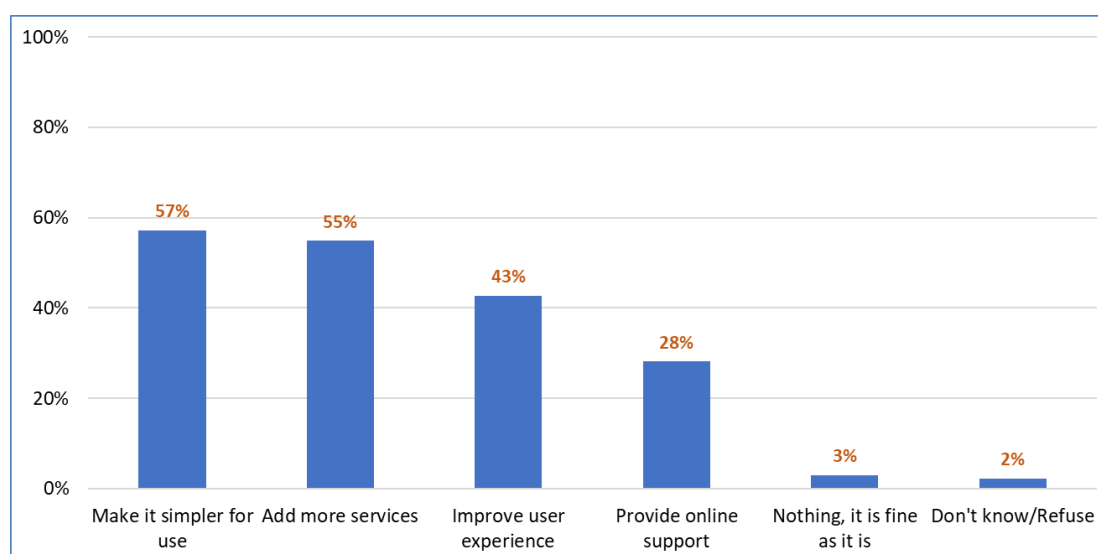


Chart 37 – What would you improve on the e-Uslugi platform if you could – %

Of the (55%) citizens who have never used the national e-Uslugi platform, over half (53%) stated that they did not have access to a device or the Internet, one third (33%) did not know how to use the services, while 21% did not use it because the services are not available in their language. (Table 10).

<i>No access to devices or internet</i>	53%
<i>No knowledge on how to use it</i>	33%
<i>Not available in my language</i>	21%
<i>Online service process takes too long</i>	13%
<i>Online services are not available</i>	13%
<i>I find in-person services more comfortable</i>	12%
<i>Online services are not very reliable</i>	11%
<i>I don't know/Refuses to answer</i>	11%

Table 10 If you did not use or hesitated to use the online government services in the past, what were the reasons - %

Over half (58%) of citizens prefer to use public services by visiting an office in person, 16% by phone calling, 11% using a website, 7% by using a mobile application, 4% by sending a letter or a form and 2% by sending an e-mail and sending a text. (Chart 38). Based on the place of living, it can be noted that citizens from urban areas (13%) prefer to use a website for obtaining public services compared to citizens from rural areas (7%). By analysing the respondents' age, it is observed that the oldest category (65+ years) prefers to obtain the services by visiting an office in person, as compared to other age categories, where the percentage is significantly lower.

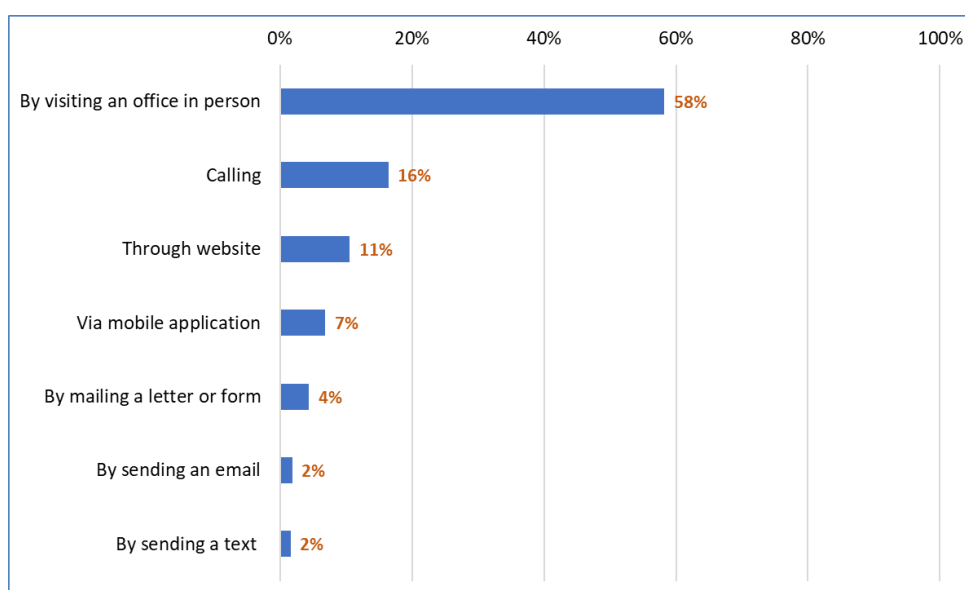


Chart 38 –How do you prefer to obtain public services - %

According to the opinion of one-third (33%) of citizens, the most useful service that should be offered online is the civil registry (certificate from the register of births, marriages, etc.). Furthermore, 29% of the respondents consider the payment of utility bills and one quarter (25%) tax payments as most useful services. (Chart 39).

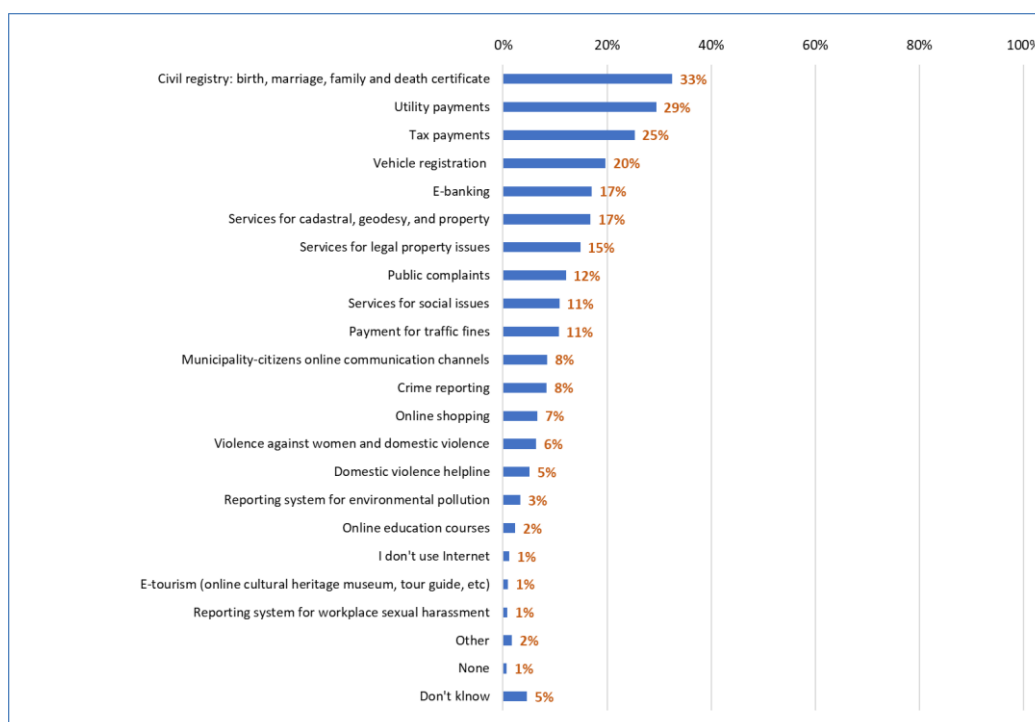


Chart 39 – What services do you think will be most useful and should be offered online –%

4.5.2 Citizen perspectives: online municipal services, experiences and digitization

Concerning the question whether the respondents have used online services offered by their municipality, the majority (86%) stated they have not used them yet, 8% answered that they have used them, while 6% did not know. The percentage of respondents who have so far used online services from their municipality is higher among the respondents who live in urban areas (10%), when compared to rural areas (5%), and, also, the percentage of Macedonians (10%) who have used online services of the municipality is higher than the percentage of respondents from the Albanian ethnicity (3%). (Chart 40).

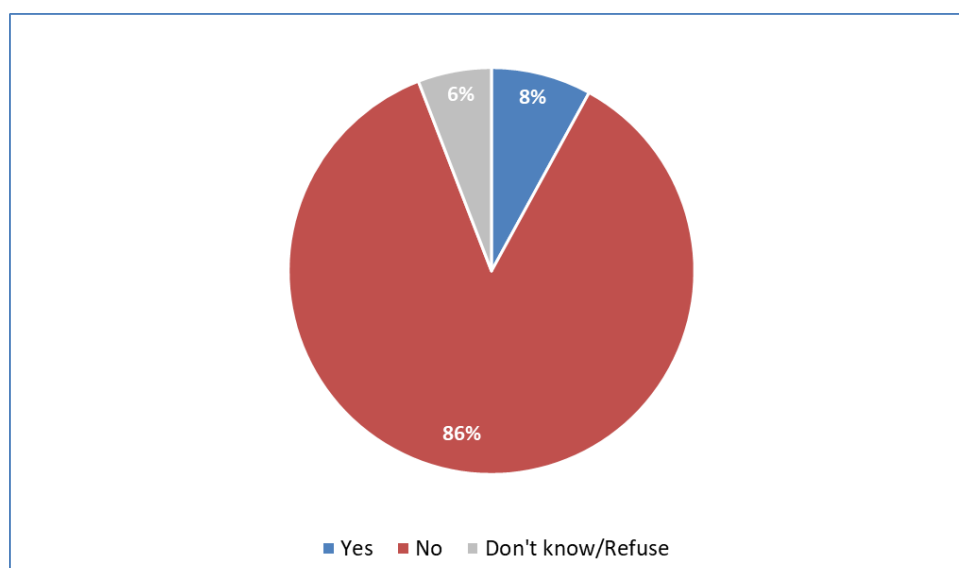


Chart 40 – Have you ever used online services that are offered by your municipality –%

Respondents who answered that they have never used the online services of their municipality (86%), stated that it was for the following reasons: I am not aware that the municipality offers online services (48%), it is easier for me to go to the municipality (15 %) and I can't navigate the application (12%). Differences based on the respondents' gender are also evident in the responses. More specifically, a higher percentage of women (52%) say that they are not aware that the municipality offers online services, compared to men (45%). (Table 11).

<i>I am not aware that the municipality offers online services</i>	48%
<i>It is easier for me to go to the municipality</i>	15%
<i>I can't navigate the application</i>	12%
<i>The municipality website does not have conditions for obtaining a certain service online</i>	8%
<i>I am not confident that the service will be completed if I submit a request online</i>	7%
<i>The municipality website is not working</i>	4%
<i>The document issued by the municipality is not valid with an electronic signature</i>	2%
<i>The municipality website is not clear</i>	2%
<i>I submitted a request, but they did not respond within the given deadline</i>	2%
<i>The website is not available in the language in which I would like to submit a request</i>	0%

Table 11 If you did not use or hesitated to use the online government services in the past, what were the reasons - %

Citizens who answered that they used online services of their municipality (8%), indicate the following services: communal affairs (33%), urbanism (30%), legal and general affairs and education, sports and culture (19%). (Table 12). Although the data do not reveal statistically significant differences in terms of which online services are more often used by women or men, one or the other gender tend to use certain services more. More specifically, these are the following services:

- Urbanism, men (36%) – women (23%)
- Legal and general affairs, men (21%) – women (16%)
- Communal affairs, men (36%) – women (29%)
- Local economic development, men (15%) – women (6%)
- Taxes, men (9%) – women (16%)
- Education and sports, men (15%) – women (23%) and
- Request for subsidies, scholarships, men (15%) – women (19%)

<i>Communal affairs</i>	33%
<i>Urbanism</i>	30%
<i>Legal and general affairs</i>	19%
<i>Education, sports and culture</i>	19%
<i>Requests for subsidies, scholarships</i>	17%
<i>Taxes</i>	13%
<i>Local economic development</i>	11%
<i>Public procurements</i>	8%
<i>Report a problem</i>	8%
<i>Inspection supervision</i>	6%
<i>Finances</i>	6%
<i>Environmental protection</i>	6%
<i>Advice</i>	6%
<i>Request for meetings with the Mayor/the Council president</i>	6%
<i>Proposal initiatives</i>	5%

Table 12 Which services did you use online that are offered by your municipality - %

Most of the respondents (69%) who used e-services of the municipality answered that it was easy and quick to obtain the services online, while 11% of the respondents did not find the guidelines or information on the platform clear and experienced certain technical problems. (Chart 41).

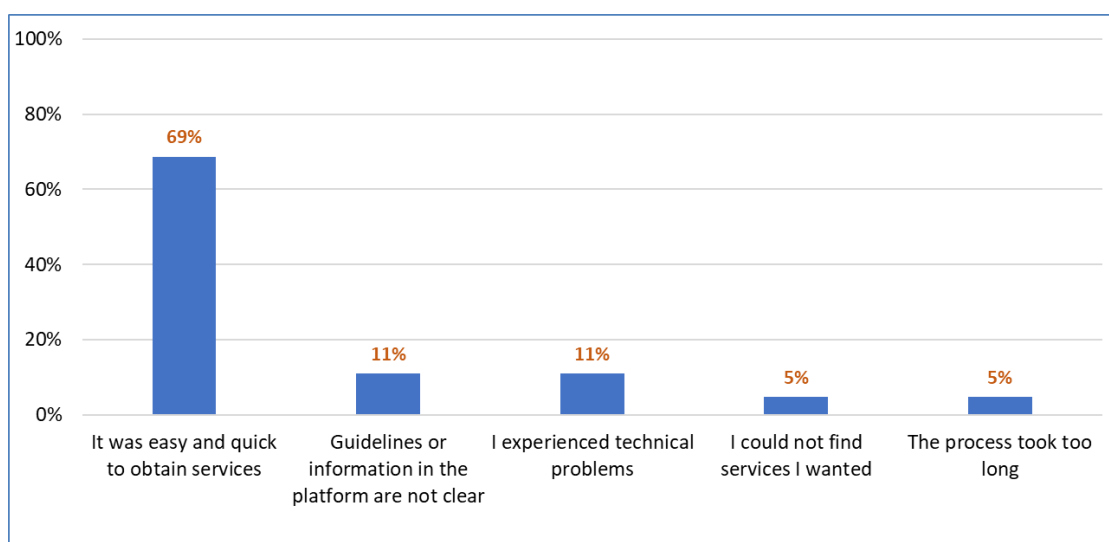


Chart 41 – What was your experience in using the E-services offered by your municipality –%

Some of the surveyed citizens believe that all areas under the competence of the municipality (7%) should be digitized, 6% believe that the cadastral and property legal services should be digitized, and 5% the payment of taxes and the issuing of personal documents. However, a large part of respondents (59%) did not know or refused to answer. (Chart 42).

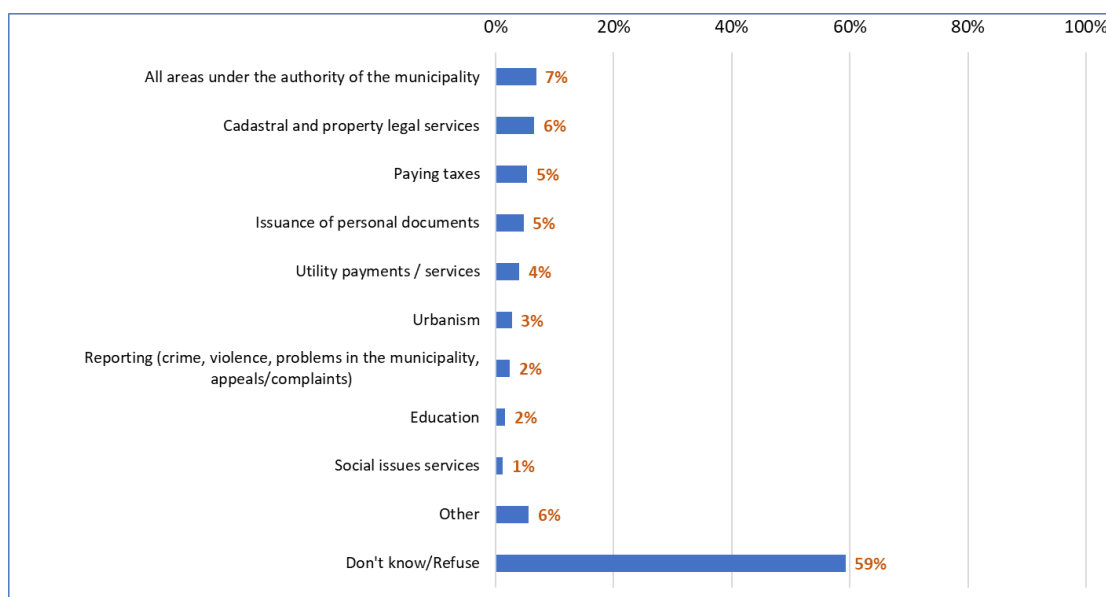


Chart 42 – In which area do you think that the municipality's services should be digitized? –%

Approximately half of the respondents (47%) answered that their municipality has a Facebook page, 20% that the municipality regularly updates the website, 10% stated that the municipality responds to requests and comments received via social networks, while 43% of the respondents did not know. (Chart 43). When analysed according to the statistical regions, it can be noted that the percentage of respondents from the Southeast region, who answered that their municipality uses a Facebook page, is the highest, in comparison to other regions where the percentage is significantly lower. In addition, the number of respondents from the Macedonian ethnicity (54%), who stated that their municipality uses a Facebook page, is higher than the respondents from the Albanian ethnicity (31%) and the respondents from other ethnic groups (42%).

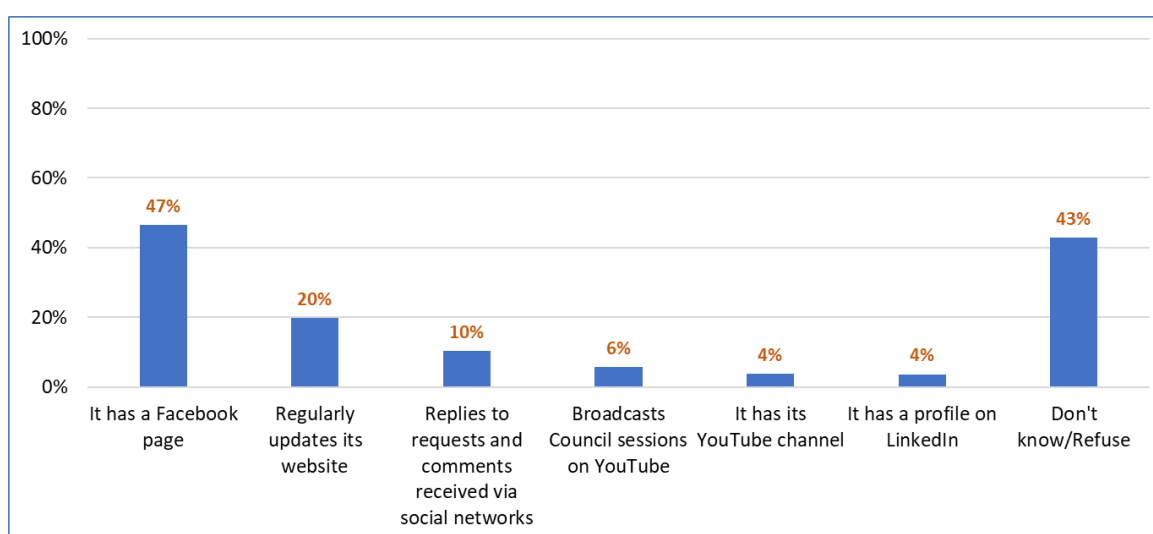


Chart 43 – Which of the following your municipality has/uses –%

4.5.3 Anticipating technological impacts: Research on future perspectives and accessibility in North Macedonia

Regarding the question to what extent technology can change the way certain activities are done, more than a third (37%) of respondents believe that the way they use banking services will be better in the future, 15% think that it will have changed for the worse, while 41% believe that there will be no changes, that is, it will remain the same. With respect to the way they work or study, 34% of respondents believe that it will change for the better, 15% for the worse and 42% that there will be no change. Furthermore, regarding the services citizens use from government or other public services, 31% believe that technology will make a change for the better, 17% believe that it will be worse and 42% that it will remain the same.

The data indicate that the percentage of respondents who believe that technology will change the way children are educated for the better is the lowest (18%), 39% believe that there will be a change for the worse and 38% that it will remain the same. the same. (Chart 44).

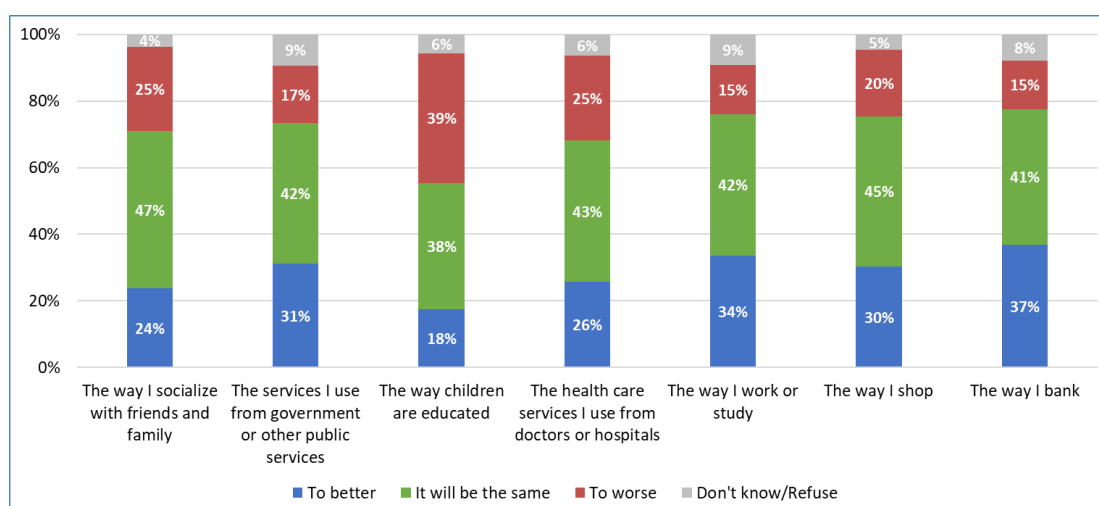


Chart 44 – Looking ahead to the future, to what extent, if at all, do you think technology will change the way you do each of the following activities—%

Regarding the question about whether the web services provided in N. Macedonia are accessible to people with disabilities, 43% of citizens did not know, that is, they did not have an answer. Furthermore, more than a third (35%) consider that they are not accessible to people with disabilities and 22% confirm, that is, they consider that they are accessible. (Chart 45).

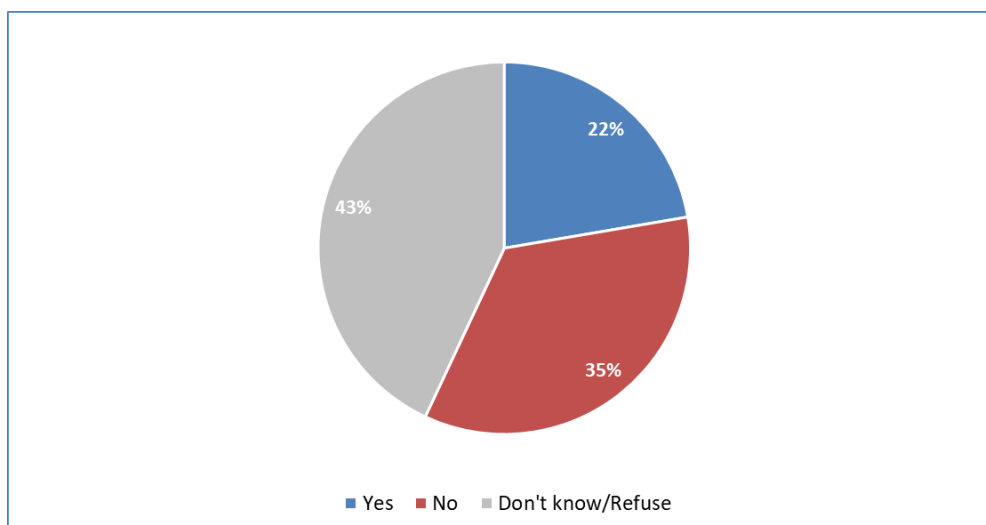


Chart 45 – Are web services that are provided in N. Macedonia accessible to people with disabilities - %

4.6 Digital Culture

This part of the questionnaire is intended to provide information about citizens' awareness and knowledge concerning the services they think are most useful for when seeking help against domestic violence, as well as about the mechanisms which would be useful for reporting and preventing sexual harassment and violence in the workplace. They were also asked how they would like to report environmental pollution if they witnessed it, as well as if they would feel comfortable reporting corruption through an online platform and whether they would be concerned that their identity might be disclosed.

The highest percentage of respondents (67%) believe that calling the police would be most useful if they needed help against violence against women or domestic violence. 42% of the respondents believe that the most useful would be a call to a 24/7 hotline offered by relevant authorities, while 20% think that 24/7 online chat services (chat) would be the most useful. On the other hand, 14% of respondents consider online groups or communities (e.g. social media) as the most useful. (Chart 46). By looking at the demographic characteristics of the respondents, certain statistical differences can be observed. Namely, among citizens from other ethnic groups, a higher percentage (81%) consider that calling the police is a useful service for help against violence, in contrast to Macedonians (67%) and Albanians (63%). Concerning the other services, while the percentage of respondents from the Macedonian ethnicity, who consider that each of the listed services is useful for seeking help against violence is higher, the percentage of respondents from the Albanian ethnic group is significantly lower. Based on the the statistical regions, a larger number of citizens living in the Southwest region believe that calling the police is the most useful service in seeking help, in comparison to respondents living in other regions, whose percentage is significantly lower.

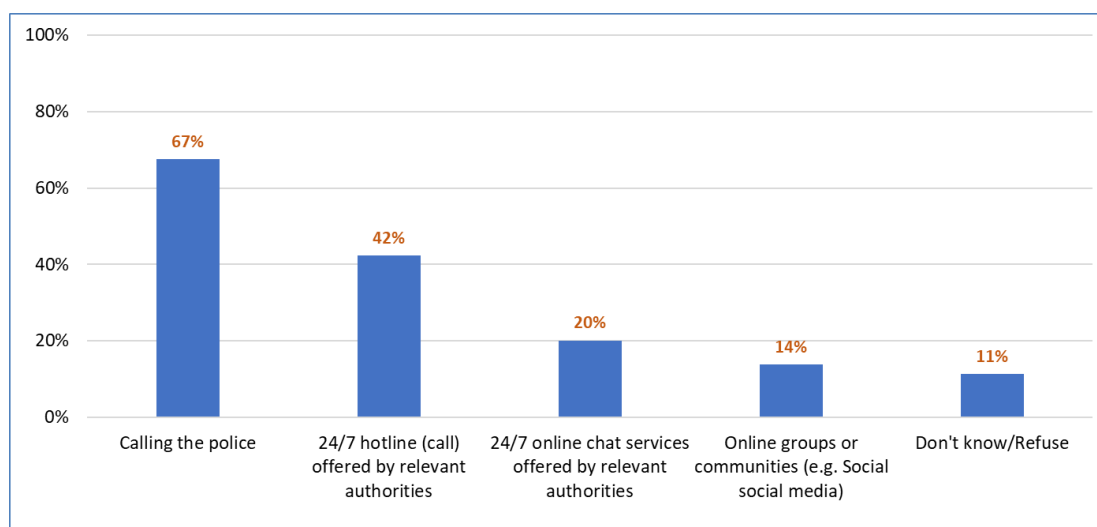


Chart 46 – Which of the following services do you think are most helpful for seeking help for violence against women and domestic violence – %

Of the respondents who are employed, 24% stated that a reporting system for sexual harassment and sexual violence at their workplace is non-existent. 22% of respondents were not aware, while 7% confirmed that they were. (Chart 47). When analysing the respondents' place of living, the percentage of respondents who stated that their workplace has a reporting system for sexual harassment and violence is higher in urban areas (9%), in contrast to rural areas (4%).

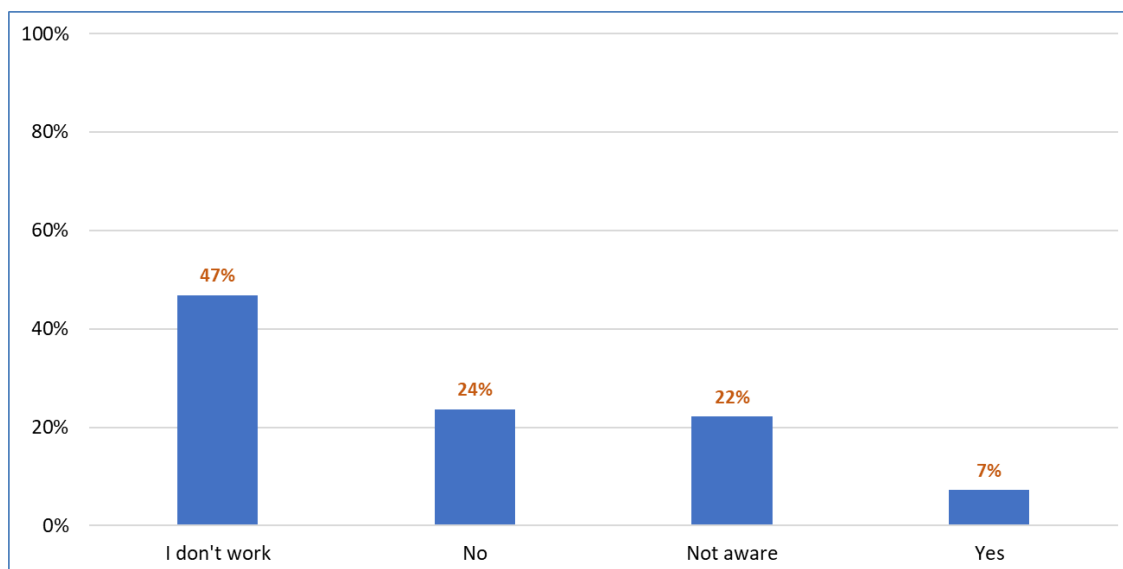


Chart 47 –Is there any reporting system for sexual harassment and sexual violence at your workplace – %

For more than half of the surveyed citizens (57%), mobile applications, operated by relevant authorities, would be a useful (useful+very useful) mechanism for reporting and preventing sexual harassment and violence at the workplace, 19% stated that it would be a somewhat useful mechanism, while for 9% it would not be useful.

Furthermore, sexual harassment prevention training courses /policies and standards of conduct at the workplace would be a useful (useful+very useful) mechanism for 55% of citizens, for 22% it would be somewhat useful, while for 9% it would not be a useful mechanism.

The online reporting platform offered by relevant authorities would be a useful (useful+very useful) mechanism for 53% of respondents, for 23% it would be somewhat useful and for 10% it would not be a useful mechanism. Regarding this mechanism, significant differences emerge in the responses obtained by men and women. Namely, men (37%) are more sceptical (not useful + somewhat useful) about the usefulness of this mechanism than women (29%).

An official complaint in writing by paper, as a mechanism, would be useful (useful+very useful) for 51% of respondents, for 23% it would be a somewhat useful mechanism, while for 11% it would not be useful. (Chart 48).

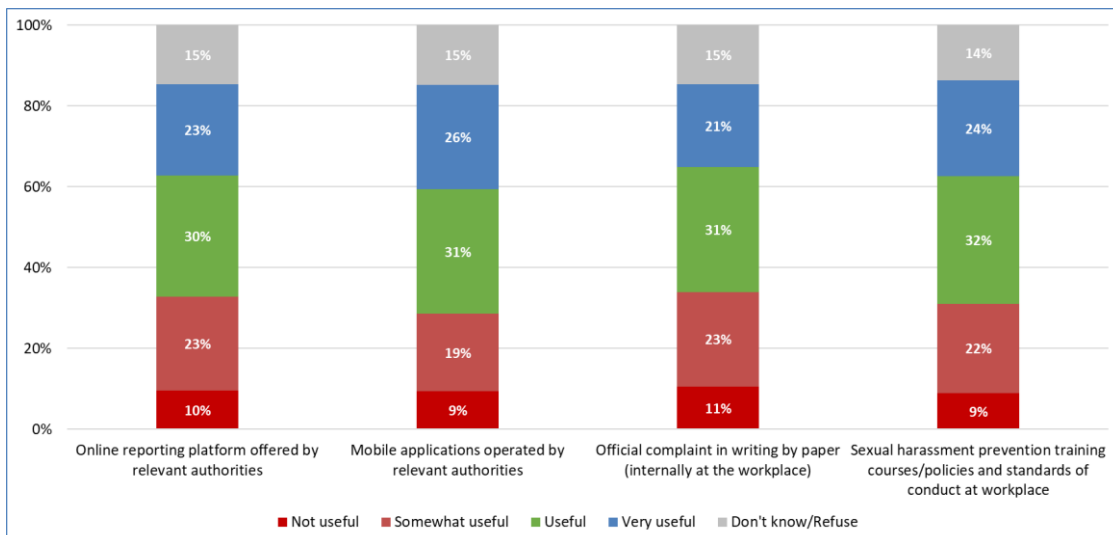


Chart 48 – How useful will the following mechanisms be in reporting and preventing sexual harassment and sexual violence at the workplace – %

If they witnessed an environmental pollution act half of the respondents (50%) would like to report it by calling the police. 14% of respondents would like to report it through an online reporting platform offered by the Municipality, 13% of them would like to report through mobile applications operated by the Municipality and 8% through online groups or communities. (Chart 49). Regarding the ethnicity of the respondents, the data show a higher number of Albanians (56%) who would like to report environmental pollution to the police, than Macedonians (47%), whereas, citizens from the Macedonian ethnicity would like to report through a mobile application operated by the Municipality, as well as through online groups or communities, more than citizens from the Albanian ethnic group. Additionally, looking at statistical regions, respondents from the Southwest region prefer to report by calling the police, unlike respondents living in other regions.

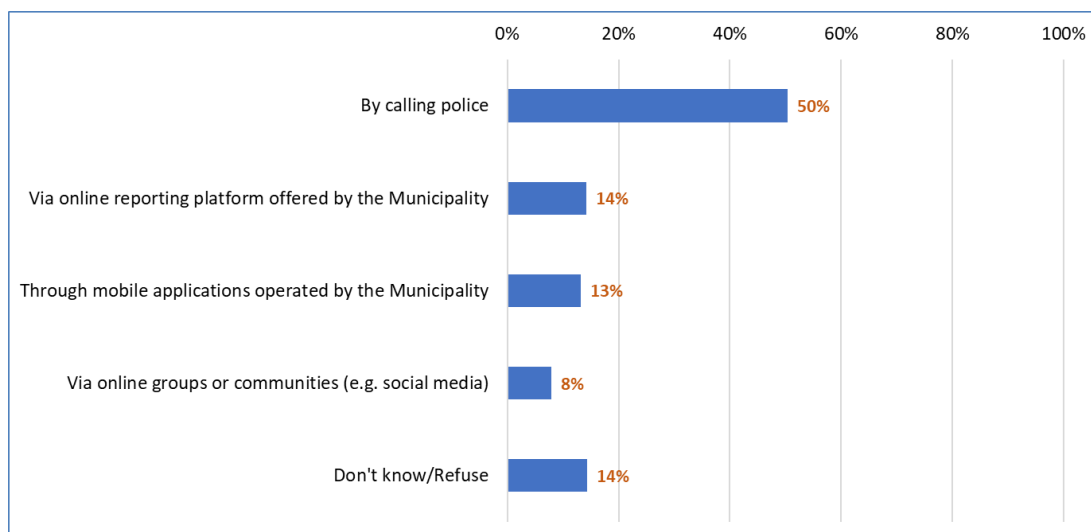


Chart 49 – If you witnessed environmental pollution act in your neighbourhood, how would you want to report it – %

Over half of the citizens (56%) would not feel comfortable submitting a complaint or corruption allegation via an online platform, while 26% would feel comfortable and 17% refused to answer. A higher percentage of respondents from urban areas confirmed that they would feel comfortable (30%), in contrast to respondents who live in rural areas (20%). Also, a higher number of respondents of the Macedonian ethnicity would feel comfortable (30%), in comparison to respondents of the Albanian ethnicity (21%) and respondents from other ethnic groups (18%). (Chart 50).

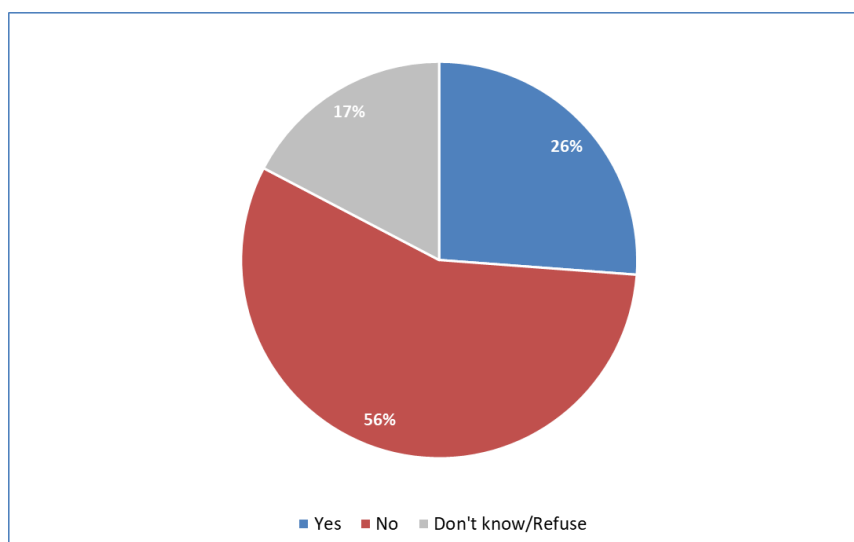


Chart 50 – Would you feel comfortable submitting a complaint or corruption allegation via an online platform - %

With regard to their concern about the possibility of their identity be disclosed, if they submit a complaint or corruption allegation online, the majority of citizens (66%) answered that yes, they would be concerned, while 34% of the citizens stated that they would not be concerned. (Chart 51). The data indicate that the respondents from the Macedonian ethnicity are more concerned (71%) about this issue, when compared to the respondents from the Albanian ethnicity (50%).

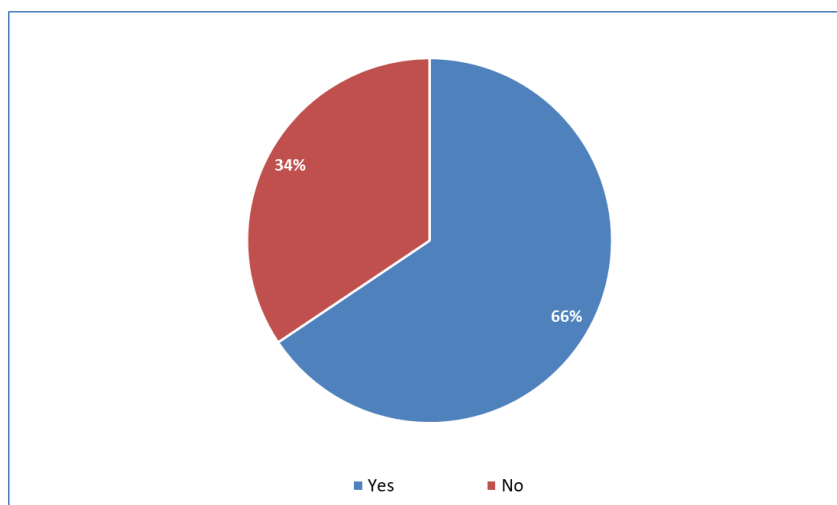


Chart 51 – Are you concerned that your identity might be disclosed if you use online platforms submitting a complaint or corruption allegation - %

When asked if they would feel more comfortable reporting allegations of corruption anonymously and through secured (encrypted) systems, most of the respondents answered affirmatively (61%), that is, yes, they would feel more comfortable. (Chart 52). On the other hand, 39% of respondents stated that they would not feel more comfortable. Again, a higher percentage of Macedonians stated that they would feel more comfortable (65%), in comparison to the respondents from the Albanian ethnicity (55%).

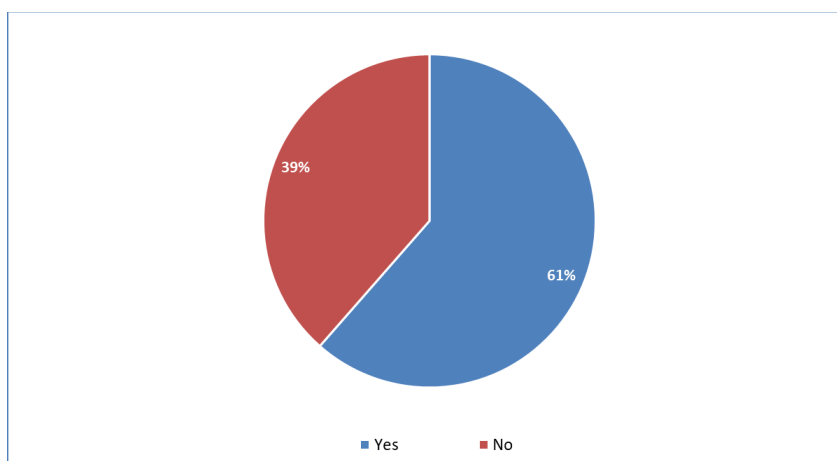


Chart 52 –Would you feel more comfortable reporting allegations of corruption anonymously and through secured (encrypted) systems -%

5 Demographic Data

The demographic data of the respondents who participated in this survey including gender, age, ethnicity, place of living, region, education, employment status and monthly household income are given in the following *Table 13*.

Demographic variables	Categories of demographic variables	No.	%
		802	100,0%
Gender	Male	393	49,0%
	Female	409	51,0%
Place of living	Urban	498	62,1%
	Rural	304	37,9%
Ethnicity ¹	Macedonian	506	63,2%
	Albanian	207	25,8%
	Other	88	11,0%
Age category	18-24	81	10,1%
	25-34	136	17,0%
	35-44	136	17,0%
	45-54	137	17,1%
	55-64	136	17,0%
	65 +	176	21,9%
Region	Vardar	64	8,0%
	East	72	9,0%
	Southwest	64	8,0%
	Southeast	80	10,0%
	Pelagonia	99	12,3%
	Polog	104	13,0%
	Northeast	63	7,9%
	Skopje	256	31,9%
Education	Primary education	186	23,2%
	Secondary education	417	52,0%
	Higher education (university)/ Masters/ PhD	199	24,8%
Employment status	Unemployed	80	10,0%
	Employed in the public sector	142	17,7%
	Employed in the private sector	250	31,2%
	Works occasionally	20	2,5%
	Retired	198	24,7%
	Housewife	60	7,5%
	Pupil/student	47	5,9%
	Refuses to answer/Can't answer	5	0,6%
Personal income for the last three months	Did not earn anything	88	11,0%
	Up to MKD 15,000	74	9,2%
	From MKD 15,001 to MKD 21,000	82	10,2%
	From MKD 21,001 to MKD 27,000	145	18,1%
	From MKD 27,001 to MKD 35,000	114	14,2%
	From MKD 35,001 to MKD 41,000	56	7,0%
Over MKD 41,000	98	12,2%	

¹ The part of the sample referring to ethnicity was designed based on data from the 2021 Census for the total resident population, excluding the people for whom the data were taken from administrative sources.

Demographic variables	Categories of demographic variables	No.	%
		802	100,0%
Disability in the family	Yes	50	6.2%
	No	726	90.5%
	Refuses to answer/No answer	26	3.2%
Number of family members	1	39	4.9%
	2	128	16.0%
	3	135	16.8%
	4	193	24.1%
	5	114	14.2%
	6	88	11.0%
	7	37	4.6%
	8	18	2.2%
	9	3	0.4%
	Refuses to answer/No answer	47	5.9%
	Registered land	Yes	267
No		510	63.6%
Refuses to answer/No answer		25	3.1%
Personal bank account	Yes	708	88.3%
	No	84	10.5%
	Refuses to answer/No answer	10	1.2%
Residential/housing status	Private apartment/ house	698	87.0%
	Rented apartment/house	23	2.9%
	Apartment/house without paying (no rent)	75	9.4%
	Temporary shelter (collective shelter, tent, etc.)	0	0.0%
	Refuses to answer/No answer	6	0.7%

Table 14 – Demographic data