



## The trend of use of ICT among households and individuals in Albania

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### Abstract

The aim of this article is to analyze the use of Internet and its trends among the population of Albania. Since 2018 the country is implementing a harmonized survey with Eu Member States in which several information and communication indicators are produced. These indicators are in line with international recommendation and are standardized in all Member States. This way the results are comparable and make possible the comparison of Albania results with other countries in the world. Using the results of this survey this article aims to comprehend how Albania is placed in relation to other countries in the Western Balkan and EU average. The data are used from a secondary data analysis through administrative data source from national statistics of Albania and Eurostat. Moreover, this article explores the profile of ICT users, such as age and gender, familiarity with the use of ICT and how Albania is placed in comparison with other countries in the region. Such analysis is important and useful in an area where ICT is becoming a substantial part of everyone in our everyday life. As a result, data show that the access of Internet among Albania population is quite high. However, the use of personal computers is still low in the country compare to other Western Balkan countries and EU average. The use of Internet is higher among younger population compared to the older one. However, the growth rate of Internet use is higher in older age compared to the other age groups, implying that Internet is becoming available to everyone. On the other hand, even if the older age group are using more and more Internet, still the use of public government services is quite low for this age group. In a period where 95% of public services are being provided online this means that this age group is becoming vulnerable and dependable to other groups.

## 1. Introduction

Everyone nowadays talks about digitalization and technology and how it has revolutionized everyone's life. The use of computers grew rapidly and widely throughout the world. Within the last 3 decades, computers have been recognized as the most life changing and successful invention solving problems in human life.

We live in an era of unique data disposal and accessibility, driven from a continuous development of technology in line with a demand from individual and governments for more data and standardized indicators to lead then in monitoring and evaluation of relevant policies and decisions. An example of such demand is the set of Sustainable Development Goals Indicators – a framework of measures designed to monitor and evaluate progress in 17 different areas of human living conditions – defined by the United Nations Statistics Division. This is an example how all countries worldwide are measuring more than 150 indicators in order to monitor their progress in all relevant fields and testifies how important figures and statistics are in this perspective.

In this framework, it is crucial to have some basic indicators in order to better understand the situation and how this technology have touch everyone. ICT statistics can help to better understand how digital technologies are transforming our world. On this basis Eurostat, since 2012 have conducted a standard survey about the use of Information and Computer Technology among Member States [1]. Since 2018 Albania has implemented this study and as a potential candidate country has to fulfil some criteria's, among the standardization of statistics [2].

The ICT Access and Usage by Households and Individuals database provides a selection of 92 indicators [3], based on the of 2<sup>nd</sup> revision of the OECD Model Survey on ICT Access and Usage by Households and Individuals.

On this framework, this paper aims not only to understand how Internet is penetrating the Albanian society, but even to further comprehend how Albania stands in relation to the region countries, specifically Western Balkan Countries. Moreover, the ICT survey explores the use of e-government. Albania’s government announced that in 1<sup>st</sup> of May, 95% of the services delivered by the public administration would be provided only online and all in persons offices would be closed. This decision was triggered by COVID-19 as well and to increase government services quality and transparency. However, this decision was taken without an appropriate study about the digital skill of the population. The data from ICT survey, show that the individuals more than 45 years old show low levels of interaction with e-government services [2].

**2. Material and Method**

This study is based on a secondary data collection and analysis using data official data sources. The data used in the analysis come from the survey on the use of Information and Communication Technologies (ICT) in households and by individuals implemented by INSTAT annually since 2018. The Survey on Information and Communication Technologies Usage in Households and by Individuals is a statistical survey conducted in households [2]. The eligible population to participate in such survey are resident population residing in Albania from 16 - 74 years old.

Such study is implemented in line with international European recommendations and serves as one of the inputs for calculating the indicators on ICT’s usage and communication technologies used by households and individuals. The ICT survey has begun to be implemented in the Member States since 2002 aiming at collecting and disseminating harmonised and comparable information on the use of ICT in households and by individuals [1].

The aim of the survey is to collect and disseminate reliable and comparable information on the use of Information and Communication Technologies in households at European level and covers the following subjects:

- a) access to and use of ICT by individuals and/or in households;
- b) use of internet for different purposes by individuals and/or in households ICT security
- c) ICT competence;
- e) e-Commerce;
- f) barriers to use of ICT and the internet;
- g) perceived effects of ICT usage on individuals and/or in households;

In this article the data of Albania will be compared with other Western Balkan countries, including Türkiye, using official data from Eurostat. The aim is not only to understand the progress of ICT in Albania, but to compare as well how the country stands in comparison with other countries of the region and to understand where it can be more developed and improved.

**2.1. Analysis of the trend of ICT use in Albania compared with other countries in the region of Western Balkan**

This session aims to analyze some of the main ICT indicators in Albania comparing them with the Western Balkan Region, Turkey and Eu average region. Not all indicators are available for Albania in Eurostat so the analysis will be carried out only the available indicators when compared to other regions.

According to the official data source, the vast majority, nine out of ten of Albanian households have access to Internet (Table 1). This percentage has steadily increased since 2018. Compared to other Western Balkan countries Albania is placed in a very high position holding the first place within this region when it comes to the percentage of households with access to Internet. This percentage is higher even when comparing Albania with the EU average when Albania holds a higher position for 2021.

**Table 1.** Households with access to Internet (in %)

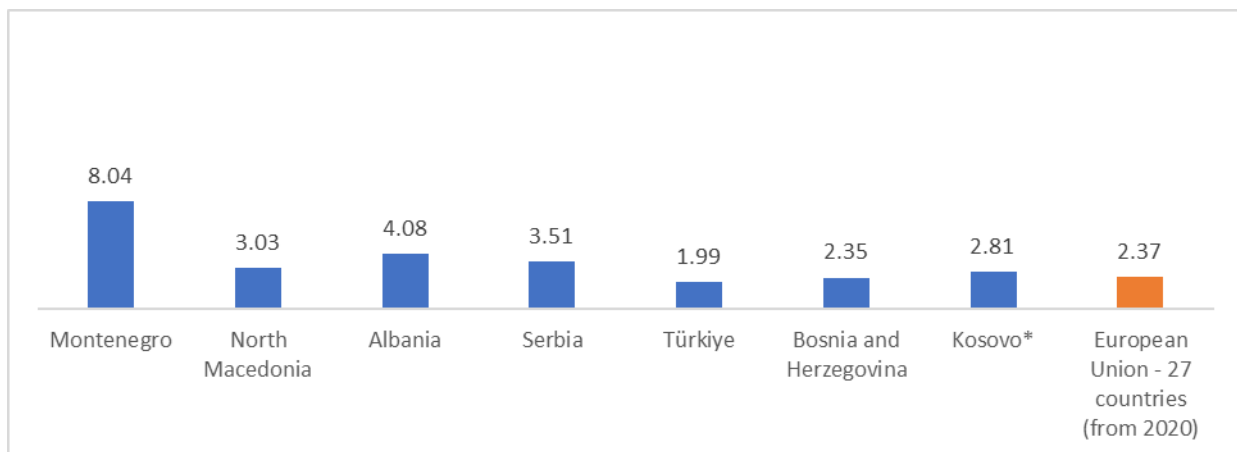
Country	2018	2019	2020	2021
Albania	82.79	85.45	87.15	90.87
Türkiye	82.49	87.91	89.86	91.95
Bosnia and Herzegovina	69.15	72.03	72.84	75.49
Serbia	72.54	79.01	80.76	81.42
Montenegro	69.39	72.37	78.13	77.82
North Macedonia	78.21	80.38	78.52	83.12
Kosovo	93.20	93.19	96.36	No data
European Union - 27 Countries (From 2020)	84.91	87.53	89.36	90.21

Even if the majority of Albanian households have access to Internet, about 79% of individuals access Internet at least once during the week. This implies that about one in five do not access the Internet during the week. This figure compared to other countries in the region, places Albania no anymore in the first place. This implies that even if the percentage of households is very high, still the percentage of individuals who access it every day is lower compared to the region (Table 2).

**Table 2.** Frequency of internet access: once a week (including every day) % of individual

Country	2018	2019	2020	2021
Albania	61.67	67.56	71.45	78.89
Türkiye	69.1	72.72	76.47	80.54
Bosnia and Herzegovina	67.71	68.52	71.89	74.91
Serbia	72.3	75.88	77.99	80.15
Montenegro	70.49	72.42	76.62	80.78
North Macedonia	77.77	80.45	80.06	85.51
Kosovo	86.44	90.35	95.04	No data
European Union - 27 Countries (From 2020)	81.57	83.9	85.84	87.18

When it comes to the analysis of the reasons of not accessing internet, about 4 percentage of Albanian households declare that they do not access Internet due to high costs of this service. Even if the vast majority of Albanian families do have access to Internet, Albania is second in the region of not accessing Internet due to costs, after Montenegro, 8% of households (Figure 1).



**Figure 1.** Household without access to Internet because of high costs (in%)

The data of accessing internet using a desktop computer show that the figure is very low in the country compared to other regions in the Western Balkan and the EU average (Table 3). This implies that Internet in the country is being access mainly through mobile phones rather than using a desktop computer. There are no official recent data in Albania in order to comprehend how many households do have a PC. The latest data come from the Census of Population and Households in 2021, where 22% of households declared to have a computer in their homes. This shows that still the access to personal computer in Albania is very low compared to other regions in the country.

**Table 3.** Individuals used the internet on a desktop computer (in %)

Country	2018	2021
Albania	18.18	14.08
Türkiye	16.42	11.89
Bosnia and Herzegovina	37.85	36.19
Serbia	43.87	39.28
Montenegro	30.95	33.31
North Macedonia	36.60	28.51
Kosovo	18.38	No data
European Union - 27 countries (from 2020)	41.24	33.92

The same trend is seen among individuals that access Internet away from home or work. Albania falls behind other countries of the region in this perspective after Bosnia and Hercegovina and Serbia. As a conclusion we might say that mostly Internet in accessed from home in Albania compared to the EU average (Table 4).

**Table 4.** Individuals used a portable computer or a handheld device to access the internet away from home or work

Country	2018	2019
Albania	54.28	68.01
Türkiye	64.48	71.94
Bosnia and Herzegovina	60.32	56.75
Serbia	57.46	62.20
Montenegro	69.67	71.43
North Macedonia	60.32	73.67
Kosovo	75.83	78.94
European Union - 27 Countries (From 2020)	67.25	73.08

This hypothesis is confirmed by the ICT survey where the data show that in Albania Internet is mainly accessed by Mobile phones rather than by other devices (Table 5). However, the use of Laptops using Internet has the major increase during the period 2018-20202 respectively. For instance, the use of Laptops accessing Internet has increased from 15% in 2018 to 24% in 2022.

**Table 5.** Main devices used to access internet 2018-2022, in %

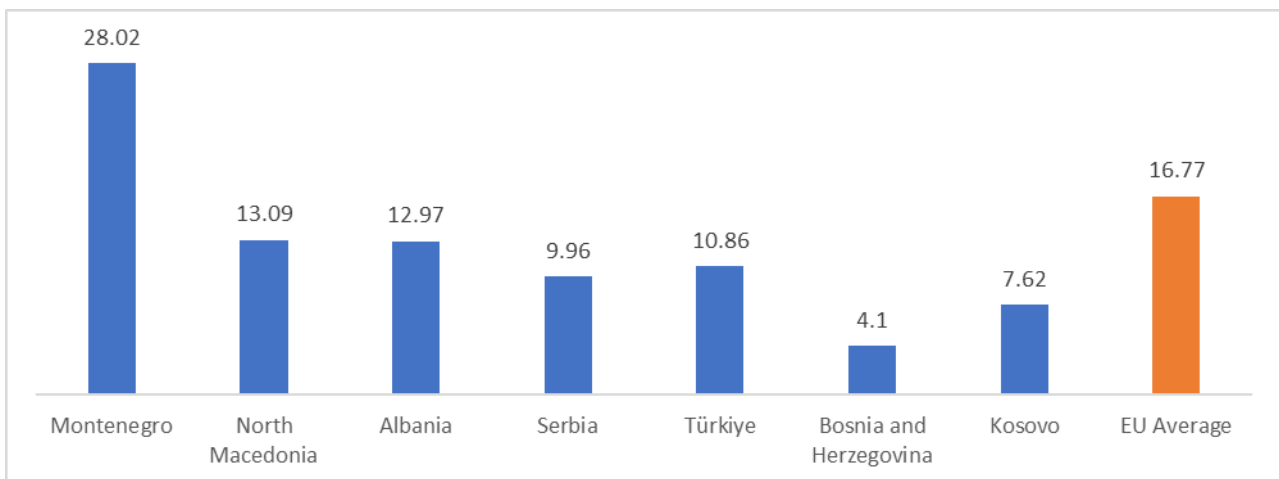
Device	2018	2019	2020	2021	2022
Mobile Phone/Smart Phone	93.6	98.6	98.8	98.7	99.9
Laptop	15.2	23.7	24.4	22.8	23.5
Tablet	5.7	6.8	7.2	8.8	13.1
Other Devices	1.8	2.5	3.0	3.9	4.1

Even the purpose of using the Internet seem to differ in Albania among other countries (Table 6). The latest data for Albania are for 2021, where only 10% have made an online purchase. This is greatly lower compared to the EU average 57% in 2021, or compared to other countries in the region. This implies that mostly Albanian citizens use Internet for reasons that are not connected to purchase and e-commerce.

**Table 6.** Percentage of individuals that made an online purchase: in the last 3 months

Country	2020	2021	2022
Albania	5.63	9.55	No data
Türkiye	23.93	32.37	33.59
Bosnia and Herzegovina	17.99	20.72	No data
Serbia	28.99	35.69	39.99
Montenegro	15.14	16.31	18.36
North Macedonia	21.46	27.56	No data
Kosovo	35.39	No data	No data
European Union - 27 Countries (From 2020)	53.76	56.94	56.08

On hypothesis might be that the low usage percentage of e-commerce among Albanians citizens might come due to the problems of delivering of various articles. The data analysis show that about one out of ten, 13% individuals who made an online purchase during 2019, declared that they have encountered some problems in the speed of delivery longer than it was indicated. This percentage is among the highest in the region after Montenegro and North Macedonia, but still lower than the EU average (Figure 2).



**Figure 2.** Individuals who encountered that speed of delivery longer than indicated, 2019 recent data

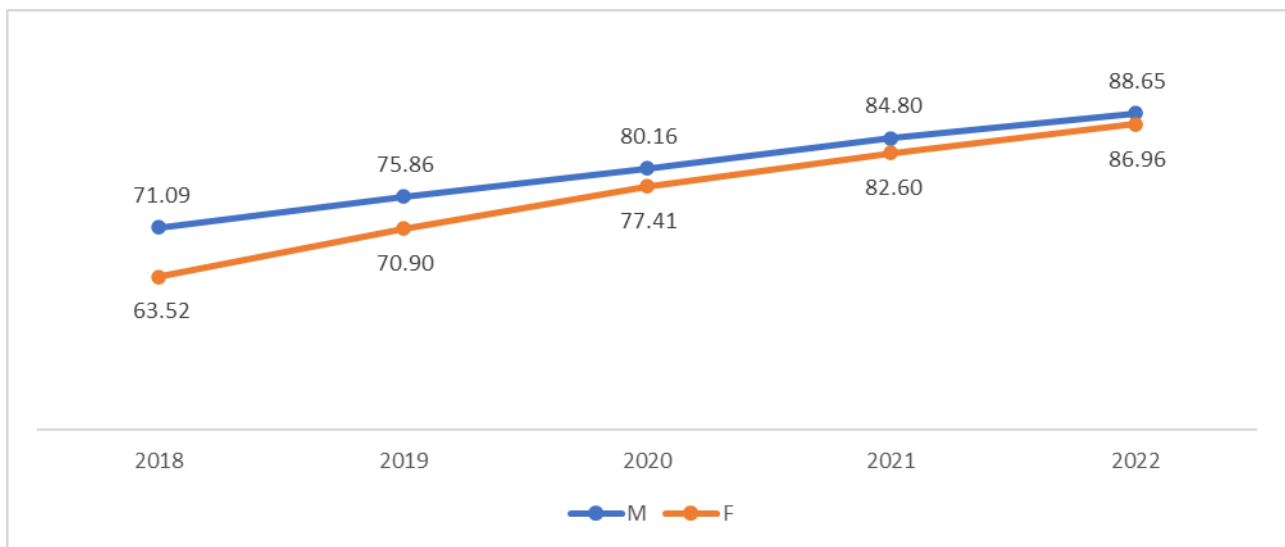
Albania and all Western Balkan regions are behind for using the Internet for financial reasons. This is true for the whole regions of Western Balkan which has is lowers compared to EU average, 4%. In Albania in 2019, about 0.33% have used Internet for investment purposes. Even the figure is very low still it is higher compared to 2018 (Table 7).

**Table 7.** Individuals who bought or sold shares, bonds, funds or other investment services over the internet (in %)

Country	2018	2019
Albania	0.08	0.33
Türkiye	1.55	1.66
Bosnia and Herzegovina	No data	0.67
Serbia	0.25	0.21
Montenegro	0.52	0.12
North Macedonia	0.55	0.41
Kosovo	0.92	0.06
European Union - 27 Countries (From 2020)	4.07	4.18

## 2.2. Profile of ICT users in Albania

ICT survey shows that the use of Internet has steadily increased among women and men. During the period 2018-2022 the percentage of men who access internet at least one time during the year, has been higher compare to women. However, this gap has decreased over years, and in 2022 the difference is only about 2-point percentage among men and women who access Internet (Figure 3).



**Figure 3.** ICT users by sex in Albania (% of individuals)

The main users of Internet remain the youngest population, respectively the age group 16-24 years. Over the last five years they have remained the highest proportion of internet users in the country. Almost everyone in the age group 16 to 34 years group have accessed at least one time during the last year of the interview. This percentage is the lowest among the older population 65-74 years old (Table 8).

**Table 8.** ICT users in Albania by age group, 2018-2022 period

Age Group	2018	2019	2020	2021
16-24	92.48	95.80	96.72	97.20
25-34	89.92	91.78	94.53	97.63
35-44	72.68	82.28	88.42	95.85
45-54	53.59	66.72	77.26	88.69
55-64	44.00	50.91	61.52	77.88
65-74	32.15	35.94	43.20	63.09

However, even if the use among the youngest population is the highest, the growth rate between the last five years has been among the oldest population where the Internet users have almost double in this period (Figure 4).

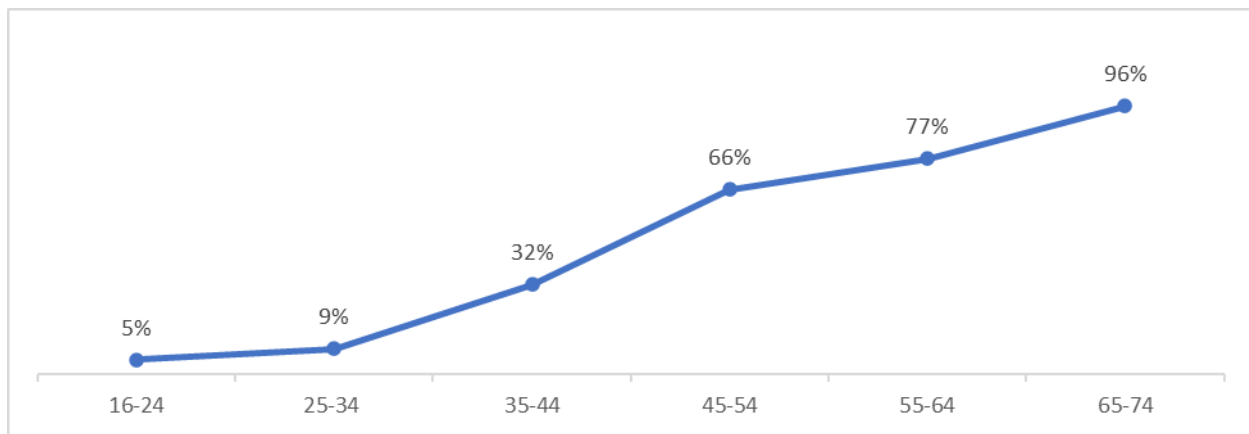


Figure 4. Growth rate of ICT users, 2018-2022 period

The electronic contact with public authorities or public services through Internet has increased very rapidly in Albania. In 2018 only 15% of individuals have had e-contact with some public services (Table 9). Meanwhile data for 2022 show that half of individuals in the country have had some electronic contact with public authorities. The same increase can be found for downloading of printing electronic forms from public services. In 2018 there were only 5% of individuals, meanwhile in 2022 six out of ten citizens in Albania have download or print forms from electronic public services. This huge increase might be explained of course by the state announcement on 27 April in 2021 that starting from 1 May 2021 all the all-public services in Albania would go digital.

Table 9. Percentage of individuals that have used E-government by their usage 2018-2022, in %

Individuals	2018	2019	2020	2021	2022	Growth rate 2018-2022 period
Obtaining information from websites or apps.	14.9	15.1	28.2	32.1	51.4	243%
Downloading/printing forms	5.5	9.9	18.2	22.9	60.5	994%
Submitting completed forms online	6.9	7.1	15.1	15.7	-	-

Data of the usage of e-government services show the very low digital skill among the age group higher than 45 years old. Only 8% of individuals of age group 45-54 have obtained information from websites or different apps and only 16,5% have downloaded or print forms. Even if the above data have shown that the higher age groups have increased the usage of Internet, on the other side their ability to interact with electronic public services is still very low, and of course this might imply that in order that they get the necessary service they still might be very dependant on younger age groups and make very vulnerable to obtain the necessary services from the government (Figure 5).

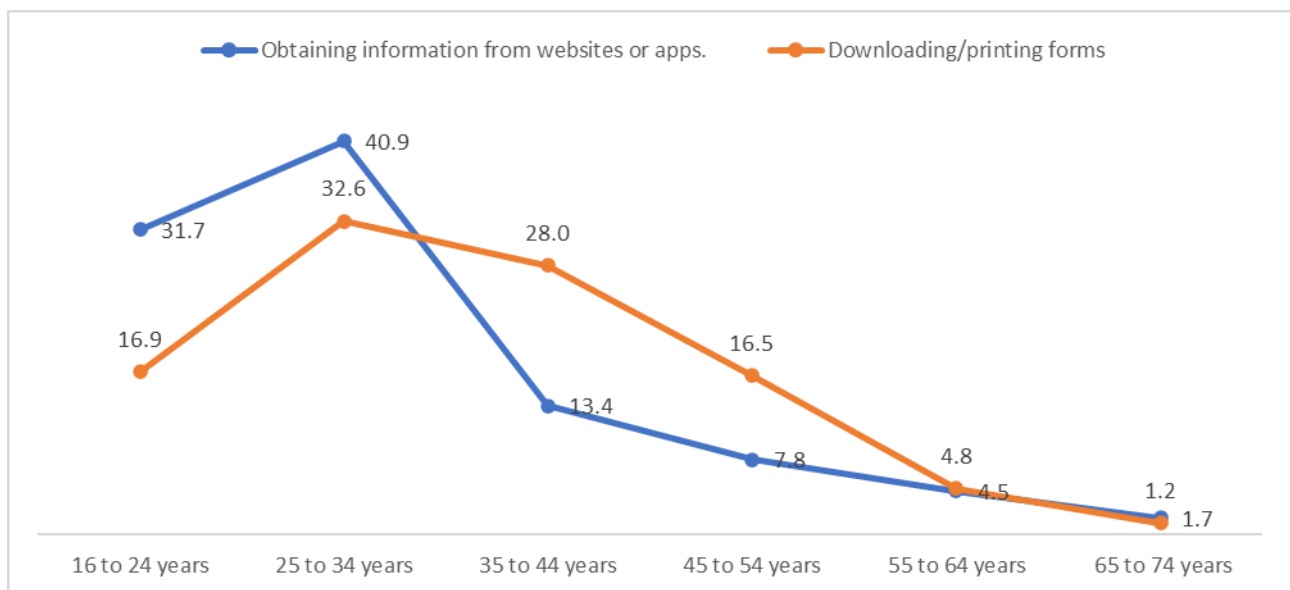


Figure 5. ICT users of e-government by age group, data from 2022 (% of individuals)

### **3. Conclusion**

This article used data from a standard survey implemented in Member States, Western Balkan Regions and Türkiye about Information and Technology. From this survey are provided more than 90 indicators that are used to monitor the progress of IT in Member States and candidates' countries.

The main data source is Eurostat database and indicators. However, Albania has not provided the full set of indicators to Eurostat so in this case, data only for the Institute of statistics of Albania are used.

Information and Technology Survey shows that about nine out of ten households in Albania have access to Internet for 2021. This places Albania in the first place in Western Balkan region for this indicator during this year. However, the access to Internet using personal computer is very low with only 14% of households using computer to access the Internet. The main device to access Internet for Albania citizens are mobile phones followed by laptops. Financial reasons for not using the Internet are among 4% of households. The proportion of individuals who use the Internet for purchase or for financial reasons is the lowest in Albania compared to other regions of Western Balkan.

Internet is mainly used by men and by young age groups. However, the increase of the proportion of women using Internet have been higher compared to men and the proportion of internet users among older age groups, more than 65 years old, have almost doubled during the last five years. The data show that even if at the beginning the Internet was more a domain of men and of youngest population, still women and other age group are recuperating making Internet accessible and usable from everyone in the country. However, still the use of e-government among older age groups is very low. Taking into account that since 2021 the majority of public services are accessed electronically, this age groups is still very vulnerable to access this information electronically.

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### **Conflicts of interest**

The authors declare no conflicts of interest.

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