

## PRIMJENA INFORMACIJSKIH I KOMUNIKACIJSKIH TEHNOLOGIJA (IKT) U KUĆANSTVIMA I KOD POJEDINACA U 2021.

### USAGE OF INFORMATION AND COMMUNICATION TECHNOLOGIES (ICT) IN HOUSEHOLDS AND BY INDIVIDUALS, 2021

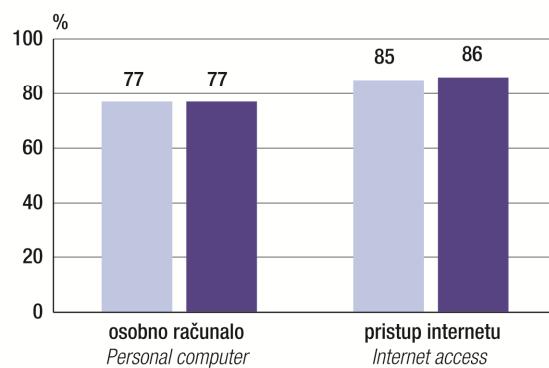
#### Tendencije

- Opremljenost kućanstava računalom i širokopojasnim pristupom internetu na prošlogodišnjoj je razini.
- Upotreba mobilnoga širokopojasnog pristupa internetu porasla je za 13% u odnosu na prošlu godinu.
- Upotreba računala i interneta na prošlogodišnjoj je razini u svim dobnim skupinama.
- Upotreba mrežnih (online) usluga e-uprave porasla je za 2% u odnosu na 2020.
- Trgovina putem interneta na prošlogodišnjoj je razini; 46% internetskih korisnika kupovalo je robu i usluge putem interneta.

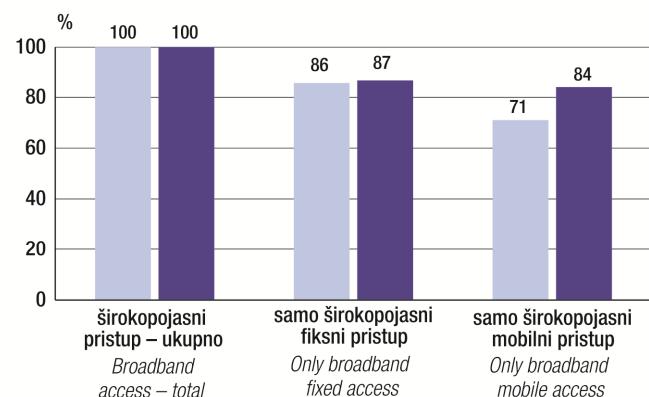
#### Tendencies

- The share of households equipped with a personal computer and broadband internet access is at the last year's level.*
- Usage of mobile broadband internet access increased by 13% compared to the last year.*
- Computer and internet usage is at the last year's level in all age groups.*
- Usage of online e-government services increased by 2% compared to 2020.*
- Commerce via the internet is at the last year's level; 46% of internet users purchased goods or services via the internet.*

**G-1. OPREMLJENOST KUĆANSTAVA IKT-om U 2021.**  
HOUSEHOLDS EQUIPPED WITH ICT, 2021



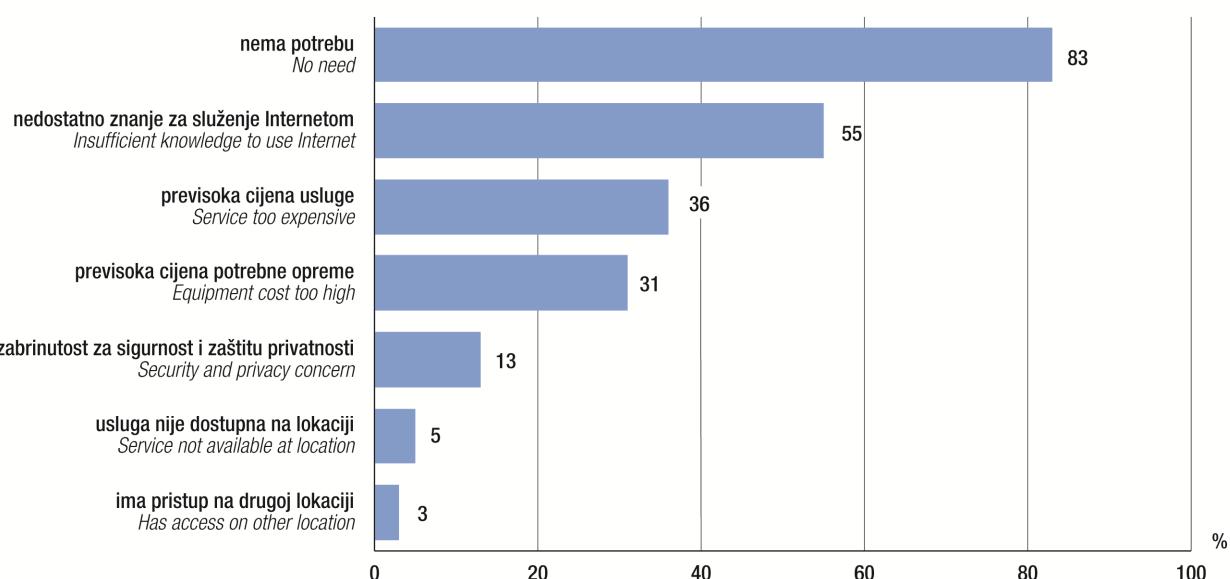
**G-2. NAČINI PRISTUPANJA INTERNETU U KUĆANSTVIMA U 2021.**  
TYPES OF INTERNET ACCESS IN HOUSEHOLDS, 2021



Rezultati istraživanja pokazali su da je opremljenost kućanstava IKT-om u Republici Hrvatskoj na razini prethodne godine. Udio kućanstava koja imaju računalo ostao je nepromijenjen, dok je udio kućanstava s pristupom internetu porastao za 1%. Udio kućanstava s mobilnim širokopojasnim pristupom internetu znatno je porastao, za 13%, u odnosu na 2020.

*The survey results showed that the share of households equipped with ICT in the Republic of Croatia is at last year's level. The share of households with personal computer remained unchanged, while the share of households with internet access increased by 1%. The share of households with mobile broadband internet access significantly increased, by 13% compared to 2020.*

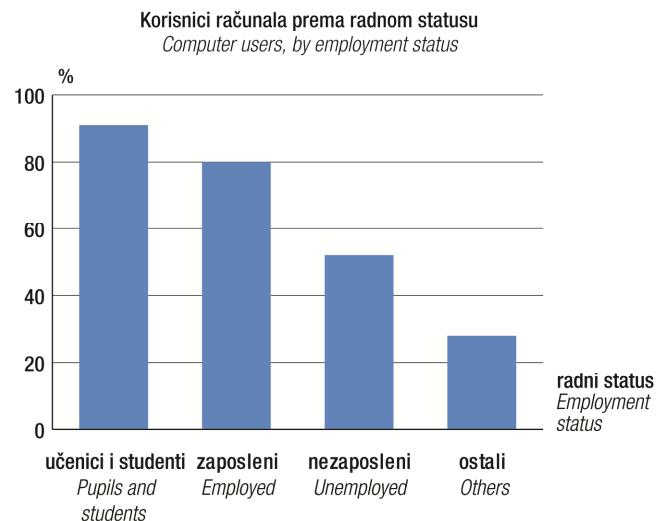
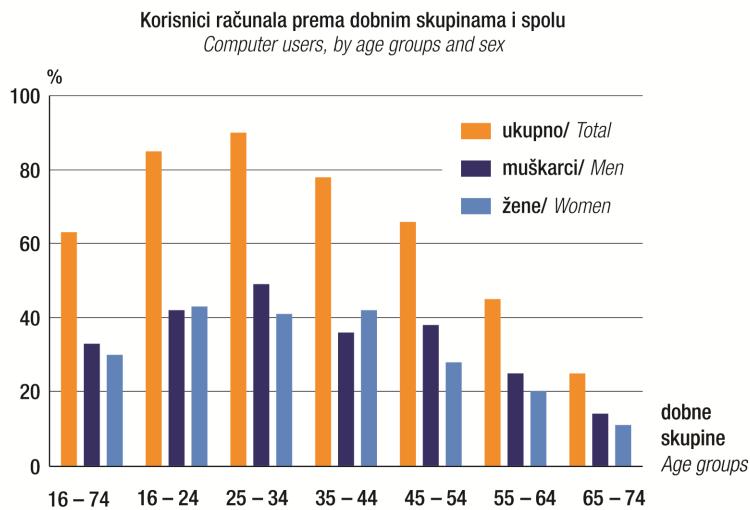
**G-3. RAZLOZI NEPOSJEDOVANJA INTERNETSKOG PRIKLJUČKA U 2021.**  
**REASONS FOR NOT HAVING INTERNET ACCESS, 2021**



Od ukupnog broja anketiranih kućanstava, 14% ih nema internetski priključak. Rezultati istraživanja pokazali su da je najčešći razlog tomu nepostojanje potrebe za upotrebljom interneta te nedostatno znanje za njegovu upotrebu. Znatan broj ispitanika istaknuo je da su previsoke cijene usluga i potrebne opreme jedan od bitnijih razloga zbog kojih kućanstvo nema internetski priključak.

*Out of the total number of surveyed households, 14% did not have internet access. The survey results showed that the most common reason was the lack of a need for it and insufficient knowledge to use the internet. A significant share of respondents highlighted the cost of services and equipment being too high as an important reason for not having internet access.*

**G-4. UPOTREBA RAČUNALA KOD POJEDINACA U 2021.**  
**USAGE OF COMPUTERS BY INDIVIDUALS, 2021**

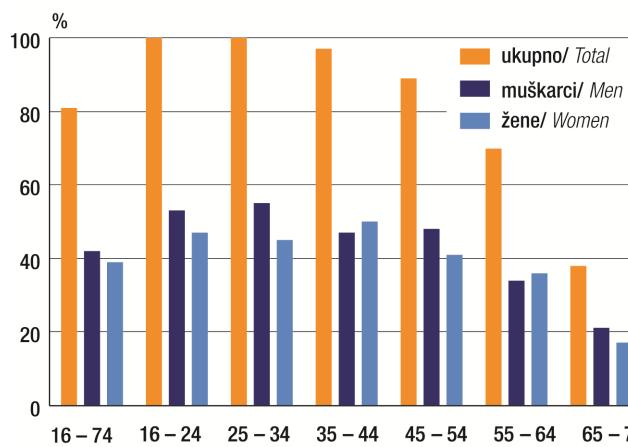


Distribucija korisnika računala po dobnim skupinama nije se bitnije promjenila u odnosu na prethodnu godinu premda je broj korisnika pao za 4%. Najmlađa populacija još uvijek prednjači u upotrebi računala, a broj korisnika opada proporcionalno njihovoj dobi. Sličan trend primjećen je i u strukturi prema radnom statusu u kojoj učenici i studenti, kao najmlađa skupina, najčešće upotrebljavaju računala.

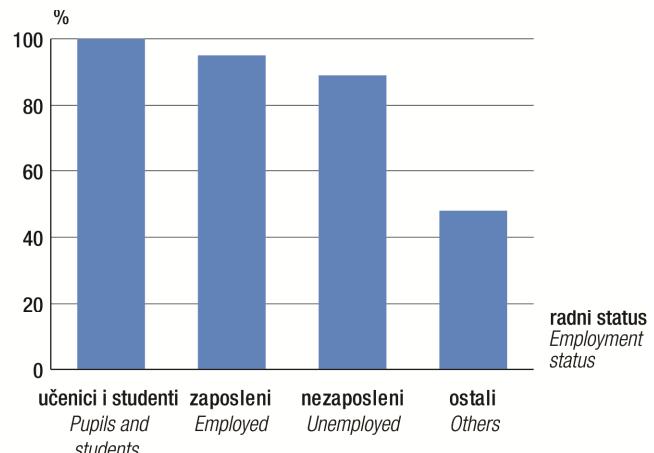
*The distribution of computer users among age groups did not change significantly compared to the previous year, although the number of users decreased by 4%. The youngest population still maintained the lead in computer usage and the number of users was decreasing proportionally with age. A similar trend was noticed in the employment status structure, where pupils and students, as the youngest group, were the most frequent computer users.*

**G-5. UPOTREBA INTERNETA KOD POJEDINACA U 2021.**  
 USAGE OF INTERNET BY INDIVIDUALS, 2021

Korisnici interneta prema dobnim skupinama i spolu  
 Internet users, by age groups and sex



Korisnici interneta prema radnom statusu  
 Internet users, by employment status

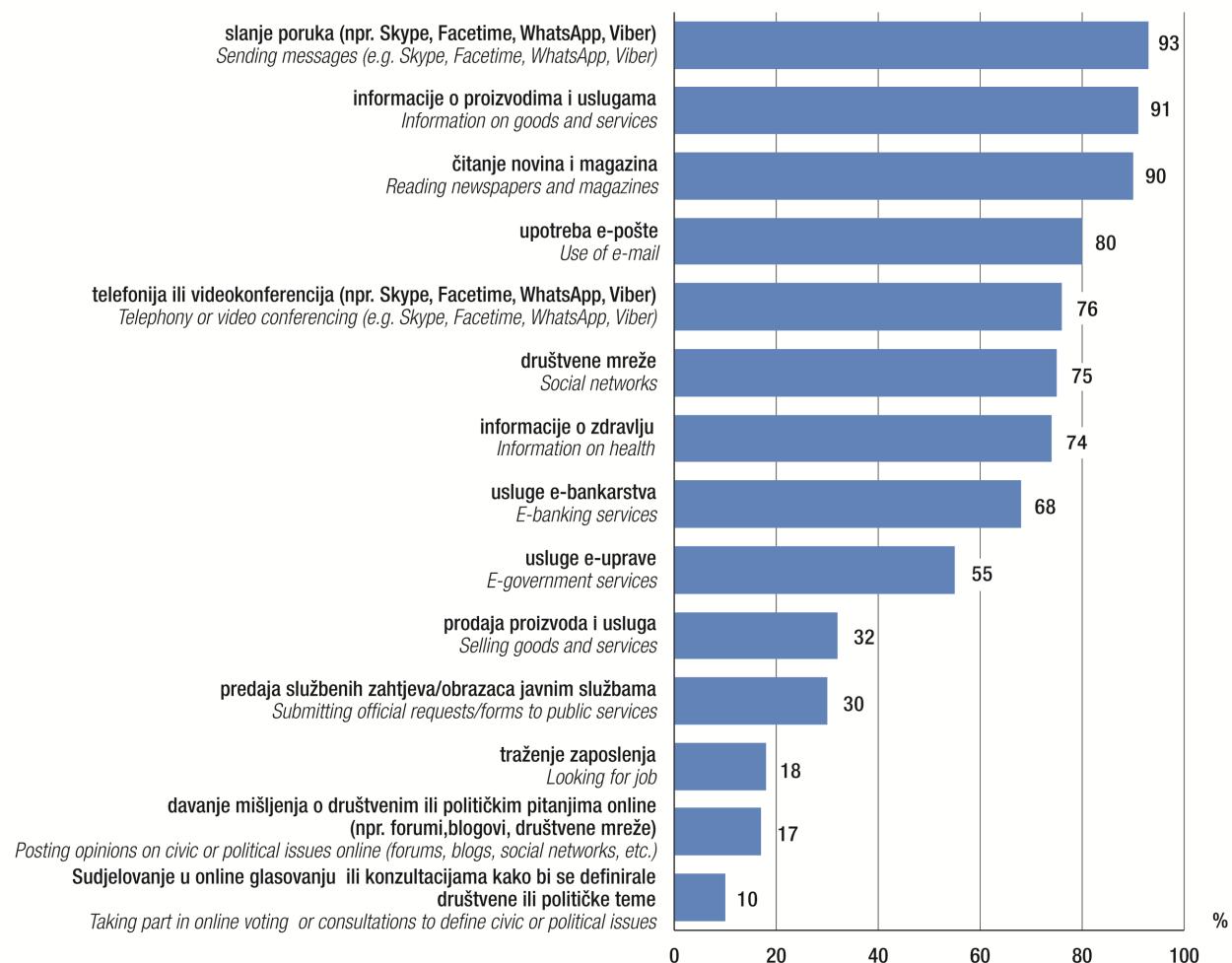


Primjećen je porast u gotovo svim dobnim skupinama korisnika interneta u odnosu na prethodnu godinu. Najveći porast prisutan je u dobroj skupini 65 – 74 godine, tj. 10% u odnosu na prethodnu godinu. Najmlađa populacija očekivano prednjači u upotrebi interneta, a broj korisnika opada proporcionalno njihovoj dobi. Sličan trend primjećen je i u strukturi prema radnom statusu u kojoj učenici i studenti, kao najmlađa skupina, najčešće upotrebljavaju internet.

An increase was noticed in almost all age groups of internet users compared to the previous year. The highest increase was recorded in the 65 – 74 age group, i.e. 10% compared to the previous year. As expected, the youngest population still maintained the lead in internet usage and the number of users was decreasing proportionally with age. A similar trend was noticed in the employment status structure, where pupils and students, as the youngest group, were the most frequent internet users.

## G-6. NAMJENA UPOTREBE INTERNETA KOD POJEDINACA U 2021.

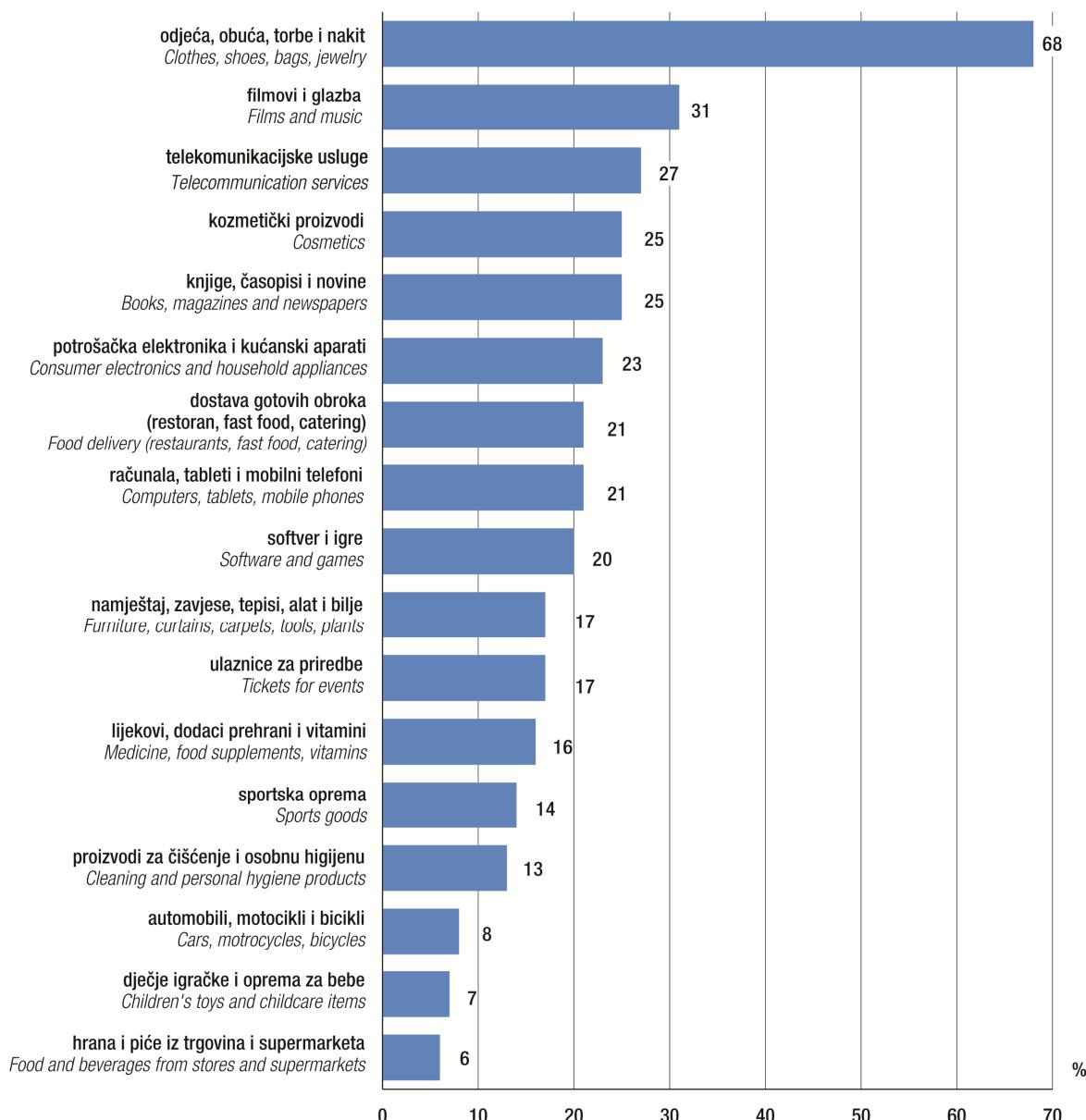
PURPOSE OF INTERNET USAGE BY INDIVIDUALS, 2021



Usaporede li se rezultati s podacima iz prethodne godine, može se uočiti da se navike nisu bitnije promijenile. Pojedinci se najčešće koriste internetom za slanje poruka (93%), prikupljanje informacija o proizvodima i uslugama (91%), čitanje dnevnih novosti i časopisa (90%), upotrebu e-pošte (80%), telefoniju i videopozive (76%), sudjelovanje na društvenim mrežama (75%) te prikupljanje informacija o zdravlju (74%).

The comparison of the results with data from the previous year showed that habits have not changed much. Individuals mostly used the internet for sending messages (93%), obtaining information on goods and services (91%), reading daily news and magazines (90%), using e-mail (80%), telephone and video calls (76%), participating in social networks (75%) and for obtaining information on health (74%).

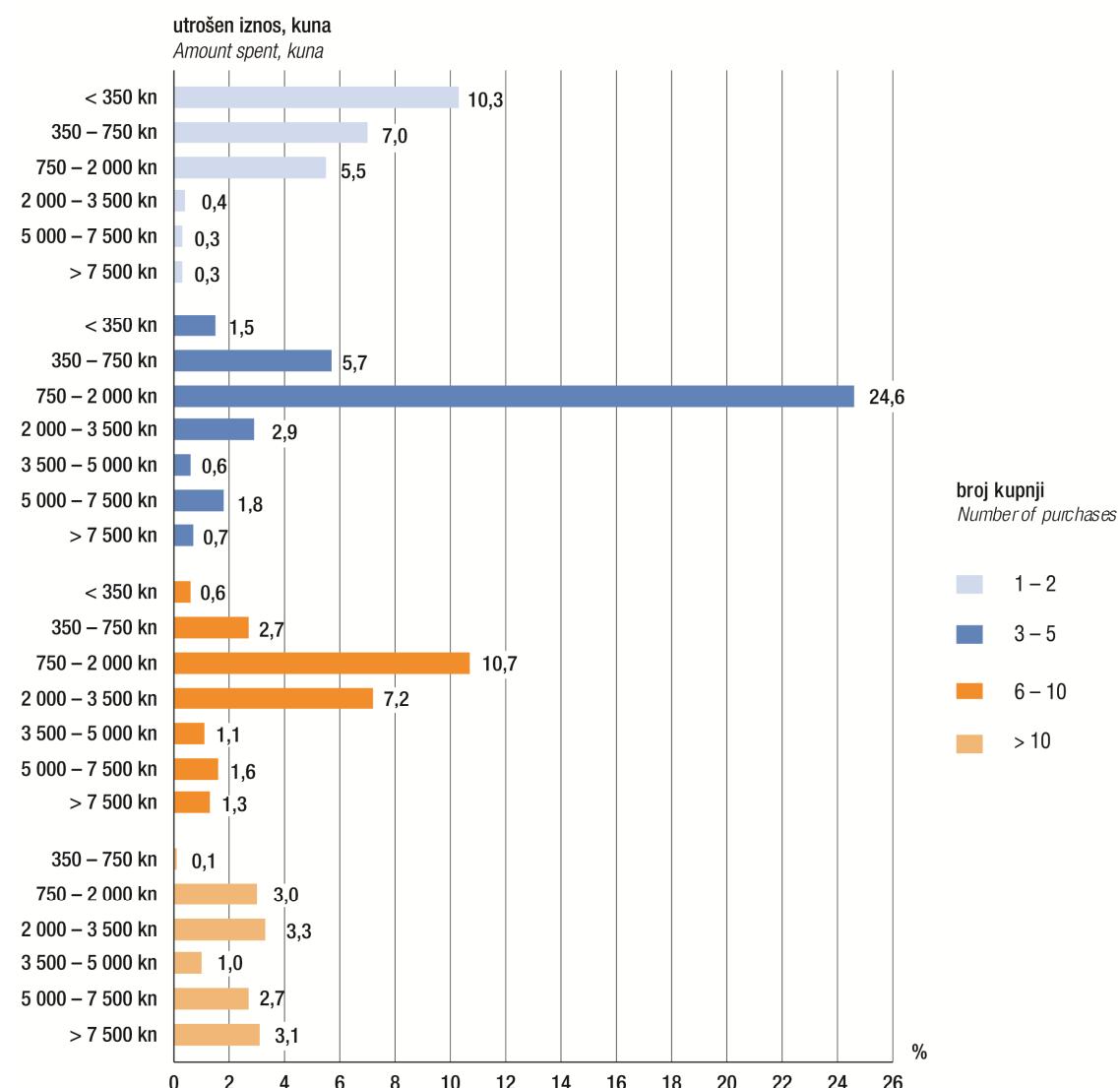
**G-7. INTERNETSKA KUPNJA KOD POJEDINACA U 2021.**  
 INTERNET PURCHASES BY INDIVIDUALS, 2021



Rezultati istraživanja pokazuju da nije došlo do porasta trgovine putem interneta. Robu i usluge kupovalo je putem interneta 46% internetskih korisnika, što je isto kao i prethodne godine. Navike kupaca pokazuju da se najčešće kupuju odjeća i obuća, filmovi i glazba, telekomunikacijske usluge, kozmetički proizvodi, knjige i časopisi te potrošačka elektronika i kućanski aparati.

The survey results showed that commerce via the internet has not increased. There were 46% of internet users who purchased goods and services via the internet, which is the same compared to the previous year. Buyers' habits show that the most often bought items were clothes and shoes, films and music, telecommunication services, cosmetics, books and magazines with consumer electronics and household appliances.

**G-8. INTERNETSKA KUPNJA KOD POJEDINACA – UČESTALOST I VRIJEDNOST KUPNJE U 2021.**  
 INTERNET PURCHASES BY INDIVIDUALS, PURCHASE FREQUENCY AND VALUE, 2021

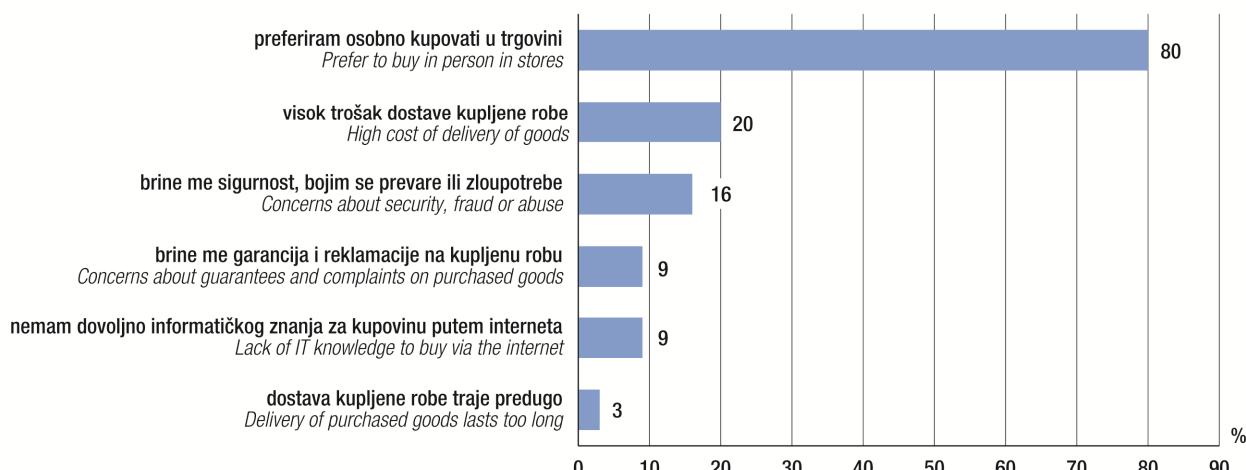


Prateći učestalost kupnje i iznos novca koji ispitanici potroše pri internetskoj kupnji, možemo vidjeti da je 62% kupaca kupovalo 1 – 5 puta, dok je 72% kupaca utrošilo do 2 000 kuna.

Measuring the frequency and value spent on internet purchases, it can be seen that 62% of internet buyers had 1 – 5 purchases, while 72% of buyers spent up to 2 000 kuna.

## G-9. RAZLOZI ZBOG KOJIH INTERNETSKI KORISNICI NE KUPUJU PUTEM INTERNETA U 2021.

REASONS FOR NOT BUYING OVER THE INTERNET, 2021



Istražili smo razloge zbog kojih 54% korisnika interneta ne kupuje proizvode i usluge putem interneta. Većina korisnika istaknula je kako preferira osobno kupovati robu u trgovini. Znatan dio istaknuo je bojazan od prijevare ili zlouporabe pri plaćanju te visok trošak dostave kupljene robe. Preostali navedeni razlozi bili su zanemarivo zastupljeni.

We have investigated the reasons why 54% of internet users do not buy goods or services over the internet. The majority emphasised that they prefer to shop in stores in person. A significant share emphasised that they have a concern about fraud or abuse during payment and the high cost of delivery of goods. The remaining stated reasons were insignificantly represented.

## METODOLOŠKA OBJAŠNJENJA

### Svrha statističkog istraživanja

Podaci prikazani u ovom Priopćenju jesu procjene dobivene iz istraživanja IKT-DOM. To je godišnje istraživanje o primjeni informacijskih i komunikacijskih tehnologija (IKT) u kućanstvima i kod pojedinaca. Pruža informacije o računalnoj i informacijskoj pismenosti hrvatske populacije. Svrha ovog istraživanja jest izmjeriti raširenost upotrebe računala i ostalih informacijsko-komunikacijskih tehnologija, broj osoba u Republici Hrvatskoj koji su korisnici interneta i za koje svrhe upotrebljavaju internet. Podaci su važan izvor za provođenje politike u području informacijskog društva u Republici Hrvatskoj i EU.

### Pravna osnova

Istraživanje IKT-DOM provedeno je u okviru smjernica Eurostata tijekom 2021., a provodi se na temelju Zakona o službenoj statistici (NN, br. 25/20.). Istraživanja su provedena u svim državama EU-a. Dakle, podaci su međunarodno usporedivi. Međunarodni podaci dostupni su na e-adresi

Digital economy and society [https://ec.europa.eu/eurostat/statistics-explained/index.php/Digital\\_economy\\_and\\_society](https://ec.europa.eu/eurostat/statistics-explained/index.php/Digital_economy_and_society).

Koncepti i definicije koji se primjenjuju u istraživanju usklađeni su s EU-ovom Metodologijom za statistike o Informacijskom društvu, 2021., a posebno s temeljnom Uredbom Europskog parlamenta i Vijeća (EZ) br. 808/2004 o statistici Zajednice o informacijskom društvu.

### Promatrane jedinice

Promatrane jedinice jesu osobe u dobi između 16 i 74 godine i njihova kućanstva.

Odabrane osobe odgovaraju na pitanja iz upitnika, a u slučaju njihove odsutnosti na pitanja može odgovarati i neki drugi član kućanstva uime odabrane osobe.

### NOTES ON METHODOLOGY

#### The purpose of the statistical survey

Data shown in this First Release are estimates obtained through the IKT-DOM Survey. This is an annual survey on the usage of information and communication technologies (ICT) in households and by individuals. It provides information on computer and information literacy of the Croatian population. This survey measures the usage of computers and other information and communication technologies as well as the number of persons in the Republic of Croatia who use the internet and for what purposes. The data are an important source for conducting policies in the field of information society in the Republic of Croatia as well as in the European Union.

#### Legal framework

The IKT-DOM Survey was conducted in 2021 according to Eurostat guidelines and on the basis of the Official Statistics Act (NN, No. 25/20). The same surveys were conducted in all EU Member States and, therefore, data are internationally comparable. The international data are available on the following web site address:

Digital economy and society [https://ec.europa.eu/eurostat/statistics-explained/index.php/Digital\\_economy\\_and\\_society](https://ec.europa.eu/eurostat/statistics-explained/index.php/Digital_economy_and_society).

Concepts and definitions used in the Survey are in line with the EU Methodology for Statistics on the Information Society, 2021, especially with Regulation (EC) No. 808/2004 of the European Parliament and of the Council concerning Community statistics on the information society.

#### Observation units

The observation units are persons aged 16 to 74 and their households.

Selected persons answer the questionnaire. In case of their absence, another household member can answer instead, but on behalf of the selected person.

## **Referentno razdoblje**

Sva pitanja u anketi odnose se na razdoblje od tri mjeseca prije provođenja ankete.

## **Veličina uzorka**

Veličina uzorka jest 5 497 osoba čija je dob u vrijeme prikupljanja podataka bila između 16 i 74 godine.

## **Okvir uzorka**

Osnova za okvir uzorka jest Popis stanovništva, kućanstava i stanova 2011. godine i telefonski imenici telefonskih operatera.

## **Metoda prikupljanja podataka**

Podaci su prikupljeni telefonskim intervjuom koji je praćen putem računala (CATI) te putem interneta upotrebot mrežnog (online) upitnika (CAWI).

## **Stupanj neodaziva**

Od ukupnog uzorka (5 497 jedinica), 5 385 jedinica bilo je prihvatljivo, a u istraživanju su sudjelovalo 3 233 osobe. To znači da je stupanj odaziva bio 60%, a stupanj prihvatljivosti 98%. Stupanj neodaziva bio je 40%.

## **Ponderacija**

Ponderacijom se računa nepristrana procjena i postiže reprezentativnost uzorka za ukupnu populaciju. Podaci u istraživanju odnose se na pojedince i kućanstvo, stoga se računaju dva pondera:

- ponder za pojedince
- ponder za kućanstvo.

**RIM weighting metoda (iterative proportional fitting – IPF)** primijenjena je za projiciranje pojedinaca na ukupnu populaciju. Varijable primjenjene za projiciranje jesu sljedeće: županija, veličina naselja, spol, dob i razina obrazovanja.

**RIM weighting metoda** primijenjena je i za projiciranje kućanstava na ukupnu populaciju. Ekstrapolacijski ponder izračunan je za svako kućanstvo koje je sudjelovalo u istraživanju, a metoda izračuna obuhvatila je županiju, veličinu naselja i stupanj urbanizacije.

Proširen je izračunani ponder za pojedince na ukupnu populaciju osoba u dobi između 16 i 74 godine. U Republici Hrvatskoj 31. prosinca 2020. bile su 3 047 722 osobe u dobi između 16 i 74 godine.

Proširen je izračunani ponder za kućanstva na ukupnu populaciju kućanstava, tj. kućanstva s najmanje jednom osobom u dobi između 16 i 74 godine. U Republici Hrvatskoj 31. prosinca 2020. bila su 1 285 823 kućanstva s najmanje jednom osobom u dobi između 16 i 74 godine.

## **Definicije i objašnjenja**

**Broadband** su širokopojasne tehnologije ili veze koje omogućuju brz prijenos podataka, osobito filmova, igara, videokonferencija putem internetske mreže (npr. ADSL, kabelska veza, UMTS, optička veza, VDSL, unajmljeni vod).

**E-trgovina** označuje kupnju ili naručivanje proizvoda i usluga putem interneta. Pisane elektroničke poruke ne smatraju se e-trgovinom.

**IKT** (informacijske i komunikacijske tehnologije) jesu softver i hardver upotrijebljen za komuniciranje podacima (npr. računalo, telefaks, internet, fiksni mobilni telefon).

## **Reference period**

All questions in the survey refer to the period of three months prior to the beginning of the survey.

## **Sample size**

The sample size was 5 497 persons aged 16 to 74 at the time of data collection.

## **Sampling frame**

The basis for the sampling frame is the 2011 Census of Population, Households and Dwellings of the Republic of Croatia and phone directories of phone companies.

## **Data collection method**

The data were collected by computer-assisted telephone interviewing (CATI) and via the internet by using the online questionnaire (CAWI).

## **Non-response rate**

Out of the total sample size (5 497 units), 5 385 units were eligible and 3 233 persons took part in the survey. It means that the response rate was 60% and the eligibility rate was 98%. The non-response rate was 40%.

## **Weighting**

Weighting calculates an unbiased estimate and achieves representativeness of the sample for the whole population. The survey data refer to persons and households and therefore two weights were calculated:

- the weight for individuals and
- the household weight.

The **RIM weighting procedure (iterative proportional fitting – IPF)** was used for the grossing-up of individuals. Variables used for the grossing-up were the following: county, settlement size, sex, age and educational attainment level.

The **RIM weighting procedure** was used for the grossing-up of households as well. The extrapolation weight was calculated for each household that participated in the survey and the calculation method included the county, settlement size and the level of urbanization.

The calculated weight for individuals was extended to the whole population of persons aged 16 to 74. On 31 December 2020, there were 3 047 722 people aged 16 to 74 in the Republic of Croatia.

The calculated household weight is extended to the whole population of households, that is, to households with at least one person aged 16 to 74. On 31 December 2020, there were 1 285 823 households with at least one person aged 16 to 74.

## **Definitions and explanations**

**Broadband** are technologies or connections that enable rapid transmission of data, especially films, games, video-conferences over an internet network (e.g. ADSL, cable connection, UMTS, optical connection, VDSL, leased lines).

**E-commerce** means buying or ordering goods and services over the internet. Typed e-mails are not considered e-commerce.

**ICT** (Information and Communication Technology) are software and hardware used for data communication (e.g. computer, fax, the internet, fixed mobile phone).

**Internet** je svjetska mreža računala, komunicira na temelju standardnih internetskih protokola i omogućuje korisnicima razmjenu tekstualnih i audiovizualnih informacija.

**UMTS (Universal Mobile Telecommunications System)** poznat je kao 3G tehnologija dizajnirana kao nasljednik GSM-a. Omogućuje korisniku prijenos slika i videozapisa, velike količine podataka bežičnim načinom te pristup internetu.

**Obrazovanje** je podijeljeno na:

- niže obrazovanje; uključuje osobe bez školskog obrazovanja ili s nedovršenim osnovnim obrazovanjem i pojedince sa završenom osnovnom školom
- srednje obrazovanje; uključuje osobe s višim tehničkim obrazovanjem i osobe s višim srednjoškolskim općim obrazovanjem
- visoko obrazovanje; uključuje osobe s visokim neakademskim obrazovanjem, osobe s profesionalno orijentiranim visokim obrazovanjem, fakultetskim obrazovanjem i osobe s poslijediplomskim obrazovanjem te magistrske i doktorske studije.

## Kratice

ADSL	asimetrična digitalna preplatnička linija
EU	Europska unija
EZ	Europska zajednica
Eurostat	Statistički ured Europske unije
GSM	globalni sistem za mobilnu komunikaciju
NN	Narodne novine
USB	univerzalna serijska sabirnica
VDSL	digitalna preplatnička linija vrlo velike brzine



U ovom Priopćenju objavljaju se podaci istraživanja koje je provedeno uz finansijsku pomoć Europske unije. Za njegov sadržaj odgovoran je isključivo Državni zavod za statistiku te ni u kojem slučaju ne izražava stav Europske unije.

*Internet is a worldwide network of computers, communicating on the basis of standard internet protocols that enable users to exchange textual and audio-visual information.*

*UMTS (Universal Mobile Telecommunications System) is also known as 3G technology which was designed as a successor to GSM. It enables users to transmit images, video, high volume of data through a wireless connection and access the internet.*

**Education** is divided as follows:

- basic education; includes persons without schooling or with incomplete primary education and persons who have only finished primary school
- secondary education; includes persons with upper secondary general or vocational education
- tertiary education; includes persons with higher non-academic education, persons with professionally-oriented higher education, faculty education and persons with post-graduate education.

## Abbreviations

ADSL	Asymmetric Digital Subscriber Line
EC	European Community
EU	European Union
Eurostat	Statistical Office of the European Communities
NN	Narodne novine, official gazette of the Republic of Croatia
GSM	Global System for Mobile Communications
USB	Universal Serial Bus
VDSL	Very-High-Bit-Rate Digital Subscriber Line

*The survey whose data are published in this First Release has been conducted with the financial assistance of the European Union. The contents of this document are the sole responsibility of the Croatian Bureau of Statistics and can under no circumstances be regarded as reflecting the position of the European Union.*

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