

**UPORABA INFORMACIJSKO-
KOMUNIKACIJSKIH TEHNOLOGIJA
U BOSNI I HERCEGOVINI**
*USE OF INFORMATION AND
COMMUNICATION TECHNOLOGIES
IN BOSNIA AND HERZEGOVINA*
2019



Bosna i Hercegovina
Bosnia and Herzegovina



**Agencija za statistiku
Bosne i Hercegovine**
Agency for Statistics of
Bosnia and Herzegovina

Sarajevo, 2020

Izdaje: Agencija za statistiku Bosne i Hercegovine
Zelenih beretki 26, 71000 Sarajevo
Bosna i Hercegovina
Telefon: +387 33 91 19 11; Faks: +387 33 22 06 22
E-mail: bhas@bhas.gov.ba; Internetska stranica: www.bhas.gov.ba

*Published: Agency for Statistics of Bosnia and Herzegovina
Zelenih beretki 26, Sarajevo
Bosnia and Herzegovina*

Odgovara: Dr.sc. Velimir Jukić, ravnatelj
Person responsible: Velimir Jukić, PhD, Director

Pripremili: Dragan Jovović, Ševala Korajčević
Prepared by: Dragan Jovović, Ševala Korajčević

Lektura: Amra Kapetanović
Proofreading: Snježana Badnjar

Dizajn naslovnice: Lejla Rakić Bekić
Cover design: Lejla Rakić Bekić

Tehnička priprema: Larisa Hasanbegović
Pre-press and DTP: Larisa Hasanbegović

KAZALO CONTENTS

UVOD	7
INTRODUCTION	7
KUĆANSTVA I POJEDINCI	9
HOUSEHOLDS AND INDIVIDUALS	9
UZORAK	11
SAMPLE	11
GLAVNI POKAZATELJI	13
MAIN INDICATORS	13
Računala u kućanstvima (bilo koje vrste: desktop, laptop, netbook, tablet, osim smart phone)	13
Computers in households (Any type: desktop, laptop, netbook, tablet, except smartphones)	13
Grafiikon 1. Postotak kućanstava koja imaju pristup računalu, BiH	13
Graph 1. Households access to the computer, BiH	13
Grafiikon 2. Postotak kućanstava koja imaju pristup računalu, prema tipu naselja, BiH	13
Graph 2. Percentage of households which have access to a computer, by settlement type, BiH	13
Grafiikon 3. Postotak kućanstava koja imaju pristup računalu, sa djecom od 15 godina i mlađom, BiH	14
Graph 3. Percentage of households which have access to the computer, with children aged 15 and younger, BiH	14
Grafiikon 4. Postotak kućanstava koja imaju pristup računalu, prema mjesečnim neto prihodima kućanstva, BiH	15
Graph 4. Percentage of households which have access to the computer, according to monthly net income of the household, BiH	15
Grafiikon 5. Postotak korisnika računala, prema starosnoj dobi	15
Graph 5. Share of computer users, by age	15
Internet u kućanstvima	16
Internet in households	16
Grafiikon 6. Postotak kućanstava koja posjeduju internet priključak, BiH 2019.....	16
Chart 6. Percentage of households that own internet connection, BiH 2019.....	16
Grafiikon 7. Postotak kućanstava koja imaju pristup internetu, sa djecom od 15 godina i mlađom, BiH	17
Graph 7. Percentage of households which have access to the Internet, with children aged 15 and younger, BiH	17
Grafiikon 8. Postotak kućanstava koja posjeduju internet priključak, prema tipu naselja	17
Graph 8. Percentage of households that own internet connection, by the type of settlement	17
Grafiikon 9. Razlog zbog kojeg kućanstva nemaju internet priključak, BiH 2019.....	18
Graph 9. The reason why households have no internet connection, BiH 2019.....	18
Pojedinci: uporaba računala (desktop, laptop, netbook ili tablet)	19
Individuals: use of computers (desktop, laptop, netbook, tablet)	19
Grafiikon 10. Postotak korisnika računala, prema starosnoj dobi	19
Graph 10. Percentage of computer users, by age	19
Grafiikon 11. Udio korisnika računala (u posljednja tri mjeseca), prema razini obrazovanja, BiH.....	20
Graph 11. The share of computer users (in the last three months), by education level, BiH	20
Grafiikon 12. Udio korisnika računala (u posljednja tri mjeseca), prema radnom statusu, BiH.....	20
Graph 12. The share of compute users (in the last three months), according to the working status, BiH	20
Pojedinci: uporaba interneta	21
Individuals: us of the Internet	21
Grafiikon 13. Osobe koje su koristile internet	21
Graph 13. Persons who used the Internet	21
Grafiikon 14. Struktura obrazovanja korisnika interneta.....	21
Graph 14. Structure of education of Internet users	21
Grafiikon 15. Udio korisnika interneta (u posljednja tri mjeseca), prema spolu, BiH	22
Graph 15. The share of Internet users (in the last three months), by gender, BiH	22
Grafiikon 16. Udio korisnika interneta (u posljednja tri mjeseca), prema radnom statusu, BiH	22
Graph 16. The share of Internet users (in the last three months), by to employment situation, BiH	22
Grafiikon 17. Udio korisnika interneta (u posljednja tri mjeseca), ispitanici koji nisu u radnom statusu, BiH	23
Graph 17. The share of Internet users (in the last three months), Other not in the labour force respondents, BiH	23
Grafiikon 18. Korištenje interneta (nekoliko puta dnevno), prema spolu i starosti, BiH, 2019	23
Graph 18. Internet usage (several times during the day), by sex and age, BiH, 2019.....	23
Grafiikon 19. Udio korisnika interneta (nekoliko puta dnevno), prema spolu	24
Graph 19. The share of Internet users (several times during the day), by gender	24
Grafiikon 20. Najčešći tipovi korištenja interneta (u privatne svrhe) u posljednja tri mjeseca, u %, BiH, 2019	25
Graph 20. The most common types of internet use (for private use) in the last three months, in %, BiH 2019	25
Grafiikon 21. Najčešći tipovi korištenja interneta (u privatne svrhe) u posljednja tri mjeseca, u %, po starosnoj dobi.....	26
Graph 21. The most common types of internet use (for private use) in the last three months, in percentages, by age	26
Grafiikon 22. Mobilni uređaji koji se koriste za pristup internetu, izvan kuće ili posla, u posljednja tri mjeseca	26
Graph 22. Mobile devices to access the Internet away from home or do business in the last three months	26

Grafiikon 23. Koriste li web stranicu ili aplikaciju prilikom rezervacije smještaja (sobe, apartmana, kuće, vikendice za odmor) u posljednjih 12 mjeseci	27
<i>Graph 23. Have you used any website or app to arrange an accommodation (a room, apartment, house, holiday cottage, etc.) from another private individual in the last 12 months</i>	<i>27</i>
Javna uprava	28
E-government	28
Grafiikon 24. Uporaba interneta radi korištenja usluga javne uprave u posljednjih 12 mjeseci, prema razini obrazovanja	28
<i>Graph 24. Use of the Internet in order to use services or services of public administration in the last 12 months, by education level</i>	<i>28</i>
Grafiikon 25. Uporaba interneta radi korištenja usluga javne uprave u posljednjih 12 mjeseci, prema spolu i starosti	29
<i>Graph 25. Use of the Internet in order to use services or services of public administration in the last 12 months, by sex and age.....</i>	<i>29</i>
Grafiikon 26. Uporaba interneta radi korištenja usluga javne uprave u posljednjih 12 mjeseci, prema radnom statusu	29
<i>Graph 26. Use of the Internet in order to use services or services of public administration in the last 12 months, by employment situation</i>	<i>29</i>
Elektronička trgovina	30
e-commerce	30
Grafiikon 27. Posljednji put (u privatne svrhe) kupili/naručili robu ili usluge putem interneta.....	30
<i>Graph 27. Last time (for private purposes) they bought / ordered goods or services via the Internet.....</i>	<i>30</i>
Grafiikon 28. Koliko često se kupovali/naručivali robu ili usluge putem interneta u privatne svrhe u posljednja 3 mjeseca.....	31
<i>Graph 28. How often have you purchased/ordered goods or services over the Internet for private purposes in the last 3 months.....</i>	<i>31</i>
Grafiikon 29. Novčani iznos kupljene/naručene robe ili usluge (pojedinci koji su kupovali zadnjih 3 mjeseca).....	31
<i>Graph 29. Amount purchased / ordered goods or services (individuals who bought the last 3 months)</i>	<i>31</i>
Grafiikon 30. Koju ste vrstu robe ili usluga kupili ili naručili putem interneta u posljednjih 12 mjeseci, u privatne svrhe	32
<i>Graph 30. What types of goods or services did you buy or order over the Internet for private use in the last 12 months</i>	<i>32</i>
E-vještine	33
e-skills	33
Grafiikon 31. Koju ste vrstu robe ili usluga kupili ili naručili putem interneta u posljednjih 12 mjeseci, u privatne svrhe	33
<i>Graph 31. What types of goods or services did you buy or order over the Internet for private use in the last 12 months</i>	<i>33</i>
Grafiikon 32. Koje od navedenih softverskih aktivnosti ste obavljali u posljednjih 12 mjeseci, prema razini obrazovanja	34
<i>Graph 32. Which of the following software related activities have you carried out in the last 12 month, by education level</i>	<i>34</i>
PODUZEĆA	35
ENTERPRISES	35
Uzorak	37
Sample.....	37
GLAVNI POKAZATELJI	38
MAIN INDICATORS	38
Računala i računalne mreže u poduzećima	38
Computers and computer networks in enterprises.....	38
Grafiikon 1. Postotak korištenja računala u poduzećima, po entitetima.....	38
<i>Graph 1. Percentage of using computers in enterprises by entities.....</i>	<i>38</i>
Grafiikon 2. Postotak zaposlenih koji koriste računalo (u poslovne svrhe) prema djelatnosti poduzeća	39
<i>Graph 2. Percentage of employees who use a computer (for business purposes), by enterprise activity.....</i>	<i>39</i>
Grafiikon 3. Da li vaše poduzeće zapošljava IKT stručnjake	40
<i>Graph 3. Does your enterprise employ ICT specialists</i>	<i>40</i>
Internet u poduzećima	41
Internet in enterprises	41
Grafiikon 4. Koja je maksimalna brzina internet konekcije u vašem poduzeću (definirana ugovorom sa internet provajderom).....	41
<i>Graph 4. What is the maximum speed of the Internet connection in your enterprises (defined by agreement with the Internet provider).....</i>	<i>41</i>
Grafiikon 5. Da li vaše poduzeće obezbeđuje prenosive uređaje koji omogućavaju mobilnu internet vezu, koristeći mobilne telefonske mreže za poslovne potrebe.....	42
<i>Graph 5. Does your enterprise provide portable devices that allow a mobile connection using mobile telephone networks for business purposes</i>	<i>42</i>
Grafiikon 6. Poduzeća prema veličini, obezbeđuje prenosive uređaje koji omogućavaju mobilnu internet vezu, koristeći mobilne telefonske mreže, za poslovne potrebe	42
<i>Graph 6. Enterprises by size, provide portable devices that allow a mobile connection to the internet using mobile telephone networks, for business purposes.....</i>	<i>42</i>
Website.....	43
Website	43
Grafiikon 7. Postotak poduzeća koja imaju website, prema djelatnosti poduzeća	43
<i>Graph 7. Percentage of companies that have a website, by enterprise activity.....</i>	<i>43</i>
Uporaba cloud usluga	44
Enterprises and social networks	44
Grafiikon 8. Postotak poduzeća koja plaćaju usluge cloud servisa putem interneta.....	44
<i>Graph 8. The percentage of enterprises that pay cloud services via the Internet</i>	<i>44</i>

Grafičkon 9. Postotak poduzeća koja plaćaju usluge <i>cloud servisa</i> , prema veličini poduzeća, 2019.....	45
<i>Graph 9. The percentage of companies that pay the cloud services, by enterprise size 2019.....</i>	45
Elektronička trgovina	46
<i>E-Commerce.....</i>	46
Grafičkon 10. Postotak poduzeća koja su primala narudžbe putem interneta.....	46
<i>Graph 10. Percentage of enterprises that received orders online</i>	46
Grafičkon 11. Postotak poduzeća koja su primala narudžbe putem interneta, prema veličini poduzeća.....	47
<i>Graph 11. Percentage of enterprises that received orders online, by size enterprises.....</i>	47
Poduzeća i društvene mreže	48
<i>Enterprises and social media</i>	48
Grafičkon 12. Da li vaše poduzeće koristi neke od društvenih mreža	48
<i>Graph 12. Did your enterprise use any of the social media for business purposes.....</i>	48
IKT RJEČNIK.....	49
<i>ICT GLOSSARY.....</i>	49
Definicije	49
<i>Definitions</i>	49

UVOD

Razvoj i uporaba informacijsko-komunikacijskih tehnologija transformirali su suvremeno društvo u „informacijsko društvo“. Njegova glavna karakteristika je ta što informacijsko-komunikacijske tehnologije igraju najvažniju ulogu kako u proizvodnji i ekonomiji, tako i u svim ostalim sferama života pojedinaca i društva u cjelosti.

Uvidjevši značaj ovih tehnologija, Agencija za statistiku Bosne i Hercegovine provela je 2016. godine pilot-istraživanje o korištenju informacijsko-komunikacijskih tehnologija u poduzećima (IKT-P) kao i istraživanje o korištenju informacijsko-komunikacijskih tehnologija u kućanstvima i pojedinačno (IKT-D). Svrha ovog istraživanja je prikazati razinu uporabe računala i ostalih informacijsko-komunikacijskih tehnologija, te broj osoba u Bosni i Hercegovini koji su korisnici interneta, i za koje se svrhe upotrebljava internet. Ovi podaci čine važan izvor informacija za provođenje politika u sektoru informacijskog društva.

Koncepti i definicije koje se primjenjuju za IKT istraživanja usklađeni su sa Eurostatovom metodologijom za statistike o informacijskom društvu 2019., sa regulativom Europskog parlamenta i Savjeta br.808/2004 o statistici Zajednice o informacijskom društvu.

Kada je riječ o kućanstvima i pojedincima, referentno razdoblje činila su tri mjeseca koja su prethodila telefonskom intervjuisanju ili posjeti anketara, dok su se pojedina pitanja odnosila na cjelokupnu 2018. godinu.

Uzorak je dizajniran kao dvosmjerni slučajni uzorak stratificiran po tipu naselja. Jedinice prve faze su popisni krugovi, a jedinice druge faze su kućanstva.

Velična uzorka na razini Bosne i Hercegovine je 9034 kućanstava. Uzorak za IKT-D 2019 je poduzorak Ankete o radnoj snazi, tako da su za IKT-D 2019 istraživanje uključena samo ona kućanstva, koja imaju bar jednog člana starosti između 16 i 74 godine. Stopa odgovora je 80,9%, odnosno 7313 kućanstava.

Anketa za poduzeća provedena je na uzorku stratificiranom po veličini i djelatnosti. Okvir uzorka je Statistički poslovni registar. Primijenjen je stratificirani uzorak, veličina uzorka 2.601 poduzeća. Realizirani uzorak 2286 poduzeća. Stopa odgovora iznosi 87,89%.

Podaci su prikupljeni kombiniranim metodama: putem telefonskog anketiranja (CATI), osobno anketiranje (PAPI, CAPI), anketiranje putem pošte.

INTRODUCTION

The development and use of information and communication technologies have transformed modern society into an "information society". Its main characteristic is that information and communication technologies play the most important role in both production and the economy, as well as in all other spheres of life of individuals and society as a whole.

Recognizing the importance of these technologies, statistical institutions in Bosnia and Herzegovina conducted for the first time in 2016 a pilot survey on the use of information and communication technologies (ICT-ENT), as well as survey on the Usage of information and communication technologies in households and by individuals (ICT-HH). The purpose of this survey is to show the level of use of computers and other information and communication technologies, as well as the number of people in Bosnia and Herzegovina who are Internet users and for which the Internet is used. These data constitute an important source of information for the implementation of policies in the information society sector.

The concepts and definitions used in ICT surveys are harmonized with the Eurostat Methodology for Information Society Statistics, 2019., with the European Parliament and Council Regulation No. 808/2004 on Community Statistics on the Information Society.

When it comes of households and individuals, the reference period consisted of three months preceding the telephone interviews or interviewers visit, while certain issues were related to the entire 2018.

The sample is designed as a two-stage random sample, stratified by type of settlements. Units of the first stage are enumeration areas, while units of the second stage are households

Sample size is 9034 households. The sample for ICT-HH 2019 is a sub-sample of the Labor Force Survey, so that only households with at least one member between the ages of 16 and 74 are included in the ICT-HH 2019 survey. The response rate is 80.9%, or 7313 households.

The survey of enterprises was conducted on a sample stratified by size and activity. The sample frame is the Statistical Business Register. The stratified sample was applied, a sample size of 2,601 enterprises. The realized sample of 2286 enterprises. The response rate is 87.89%.

The data were collected via CATI and FACE TO FACE (PAPI, CAPI) survey by mail.

Istraživanje IKT-P provedeno je na temelju Eurostat smjernica. Koncepti i definicije koji se primjenjuju u istraživanju IKT-P usklađeni su sa EU Metodologijom za statistiku o informacijskom društvu, 2019.

Nadamo se da će ova publikacija pružiti korisnicima dovoljno podataka o trenutnom stanju u oblasti informacijsko-komunikacijskih tehnologija i da će poslužiti kao dobar temelj planiranju njenog daljnjeg razvoja.

The ICT-ENT survey was conducted according to Eurostat guidelines. Concepts and definitions used in the ICT-ENT survey are in line with the EU Methodology for Statistics on the Information Society, 2019.

We hope that this publication will provide users with sufficient data on the current state of information and communication technologies and will serve as a good basis for planning its further development.

KUĆANSTVA I POJEDINCI
HOUSEHOLDS AND
INDIVIDUALS

UZORAK

Istraživanje o uporabi informacijsko-komunikacijskih tehnologija u kućanstvima provedeno je na reprezentativnom uzorku od 9034 kućanstva na teritoriju Bosne i Hercegovine. Stopa odgovora iznosi 80,9% (7313 kućanstva).

SAMPLE

The survey on the use of information and communication technologies in households was conducted on a representative sample of 9,034 households in the territory of Bosnia and Herzegovina. The response rate is 80.9% (7,313 households).

Uzorak kućanstva Household sample	Entitet /Entity			Ukupno BiH Total BiH	Prihod /Income				
	Federacija BiH Federation of BiH	Republika Srpska Republic of Srpska	Distrikt Brčko Brčko District		Gradsko Urban	Ostalo Other	Do 500 KM Up to 500 KM	500-1000 KM	Više od 1000 KM More than 1000 KM
Broj odgovora Number of responses	4.131	2.517	665	7.313	3.023	4.290	2.567	2.382	2.364
%	56,5	34,4	9,1	100,0	41,3	58,7	35,1	32,6	32,3

Isti uzorak koji je upotrebljen kod kućanstava iskorišten je i za anketiranje osoba starosti od 16 do 74 godine koja žive na teritoriju Bosne i Hercegovine, uzorak je obuhvatio 9 034 pojedinca. Stopa odgovora iznosi 80,9% (7 313 lica).

The same sample used in households was also used for the survey of persons aged 16 to 74 years living in the territory of the Bosnia and Herzegovina, the sample included 9,034 individuals. The response rate is 80.9% (7,313 persons).

Uzorak kućanstva Household sample	Spol /Gender		Ukupno BiH Total BiH	Starosna dob /Age					
	Muški Male	Ženski Female		16-24	25 - 34	35 - 44	45 - 54	55 - 64	65 - 74
Broj odgovora Number of responses	3.305	4.008	7.313	687	799	1.070	1.474	1.739	1.544
%	45,2	54,8	100,0	9,4	10,9	14,6	20,2	23,8	21,1

Uzorak kućanstva Household sample	Ukupno BiH Total BiH	Obrazovna razina ispitanika Educational level of respondents			Radni status ispitanika Working status of the respondents			
		Osnovno ili niže srednje obrazovanje Primary or lower secondary education	Srednjoškolsko obrazovanje Secondary education	Više i visoko obrazovanje Tertiary education	Zaposlen Employed	Nezaposlen Unemployed	Student Student	Ostali (umirovljenici, neaktivni) Other not in the labour force (retired, inactive)
Broj odgovora Number of responses	7.313	2.114	4.395	804	2.226	2.224	284	2.579
%	100,0	28,9	60,1	11,0	30,4	30,4	3,9	35,3

GLAVNI POKAZATELJI

Računala u kućanstvima

(bilo koje vrste: desktop, laptop, netbook, tablet, osim smart phone)

Rezultati istraživanja o uporabi informacijsko-komunikacijskih tehnologija u kućanstvima i pojedinačno (IKT-D) u Bosni i Hercegovine, pokazali su sljedeće:

- 64,8% kućanstava imaju pristup računalu
- 35,2% kućanstava nemaju pristup računalu

MAIN INDICATORS

Computers in households

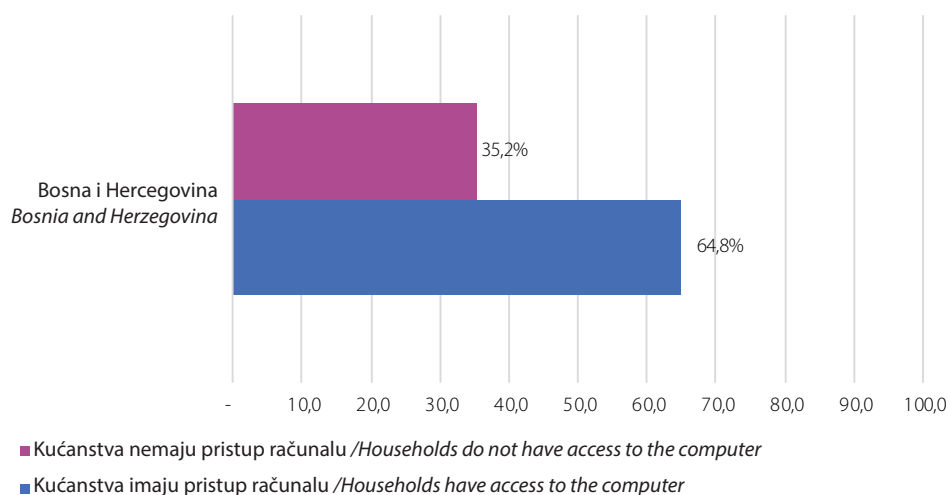
(Any type: desktop, laptop, netbook, tablet, except smartphones)

The results of the survey on the usage of information and communication technologies in households and by individuals (ICT-HH) in Bosnia and Herzegovina have shown the following:

- 63.8% of households have access to a computer
- 36.2% of households do not have computer access

Grafikon 1. Postotak kućanstava koja imaju pristup računalu, BiH

Graph 1. Households access to the computer, BiH

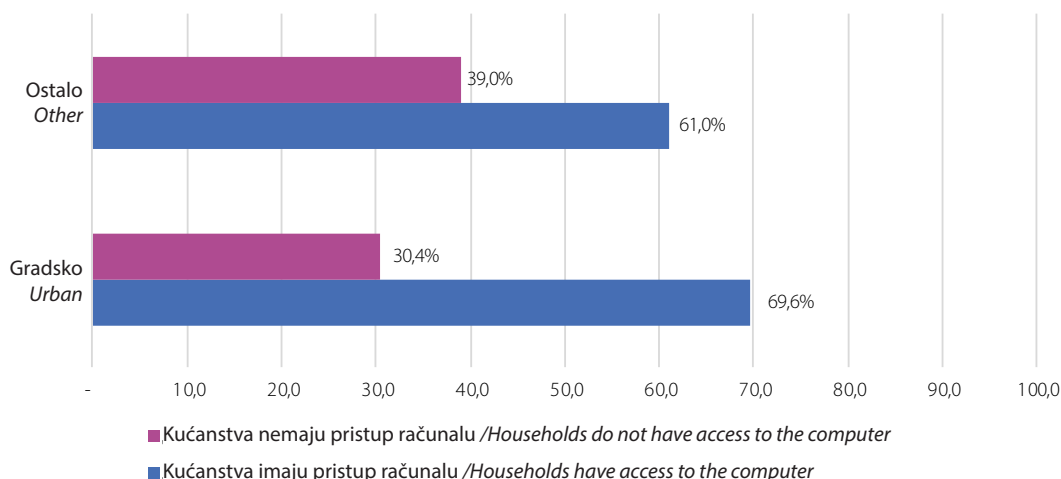


Zastupljenost računala u kućanstvima varira zavisno o tipu naselja. U urbanim sredinama 69,6% kućanstava ima pristup računalu u ostalim dijelovima 61,0%.

The representation of computers in households varies depending on the type of settlement. In urban areas 69.6% of households have access to a computer in other parts 61.0%.

Grafikon 2. Postotak kućanstava koja imaju pristup računalu, prema tipu naselja, BiH

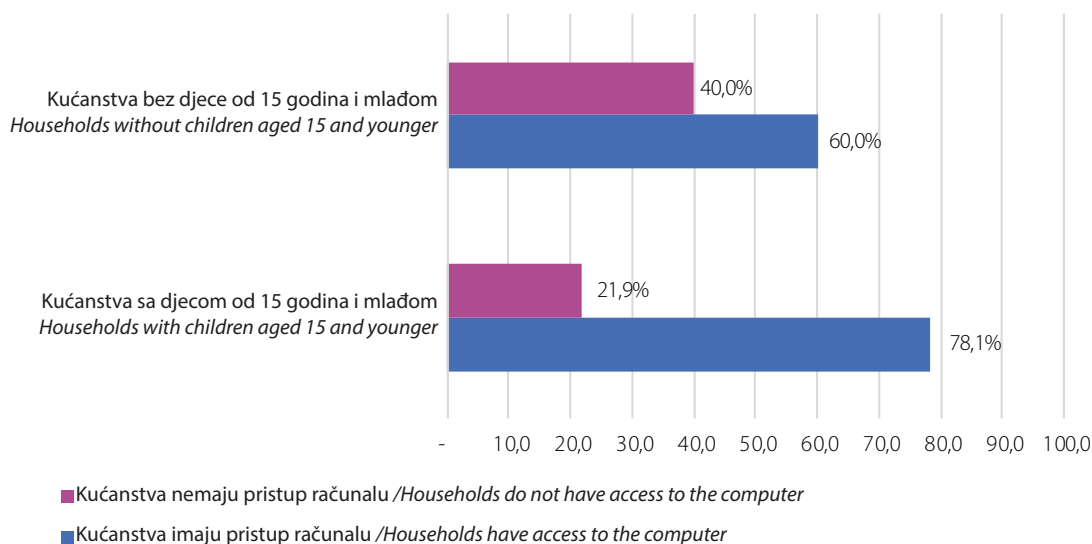
Graph 2. Percentage of households which have access to a computer, by settlement type, BiH



Razlike se mogu primijetiti kada se upoređuje pristup računalu u kućanstvima sa djecom mlađom od 16 godina (78,1%) i kućanstvima bez djece mlađe od 16 godina (60,0%).

Differences can be observed when comparing computer access in households with children under 16 (78.1%) and households without children under 16 (60.0%).

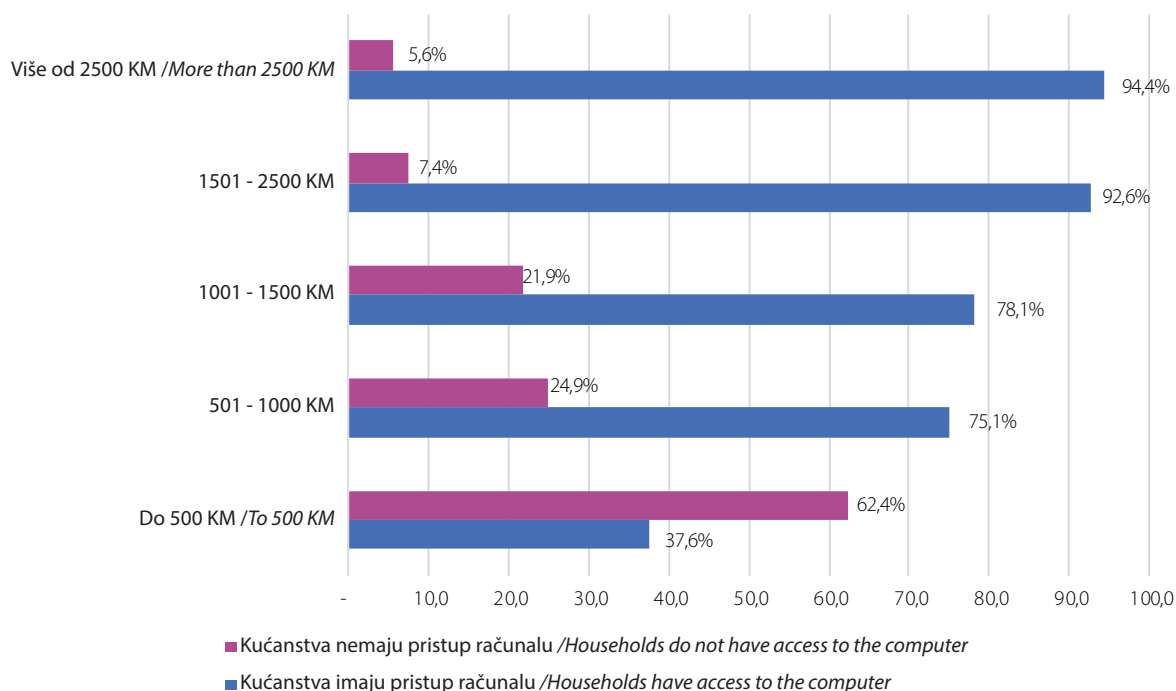
Grafikon 3. Postotak kućanstava koja imaju pristup računalu, sa djecom od 15 godina i mlađom, BiH
Graph 3. Percentage of households which have access to the computer, with children aged 15 and younger, BiH



Jaz u pristupu kućanstava računalu vidljiv je u strukturi kućanstava po mjesečnom dohotku. Pristup računalu većinom imaju kućanstva sa mjesečnim primanjima većim od 1500 KM (92,6%), odnosno prihodima većim od 2 500 KM (94,4%), dok udio kućanstava sa primanjima do 500 KM iznosi svega 37,6%.

The gap in household access to computers is visible in the structure of households by monthly income. Access to computer mostly have households with monthly income of over 1500 KM (92.6%) and revenue of more than 2,500 KM (94.4%), while the share of households with incomes up to 500 KM is only 37.6%.

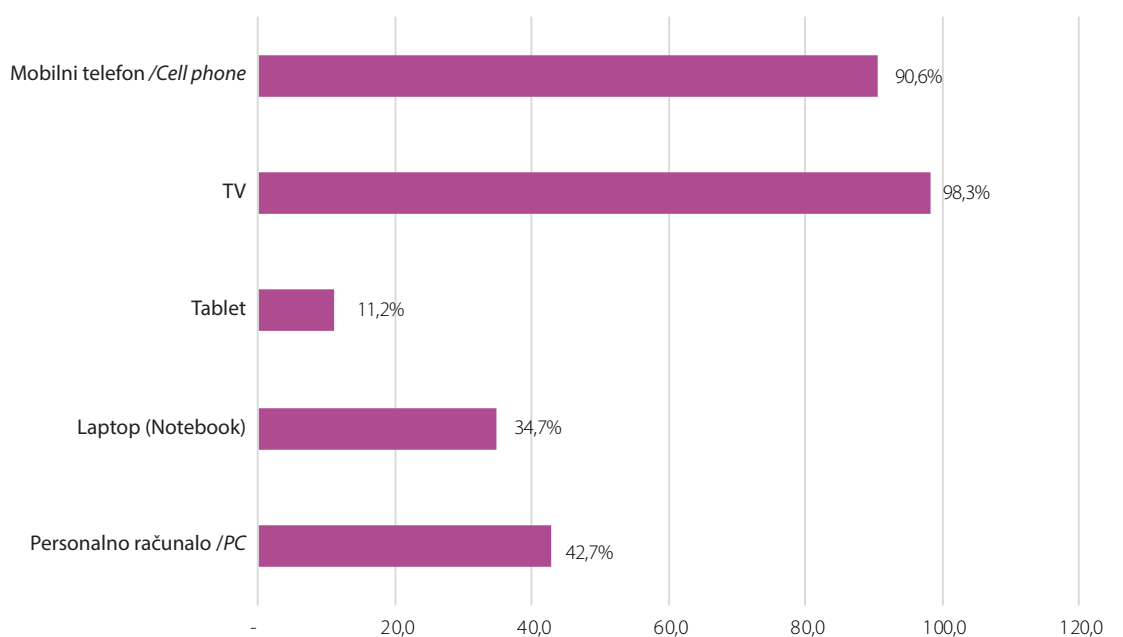
Grafikon 4. Postotak kućanstava koja imaju pristup računalu, prema mjesečnim neto prihodima kućanstva, BiH
Graph 4. Percentage of households which have access to the computer, according to monthly net income of the household, BiH



Na pitanje koje se odnosi na uređaje kojima kućanstvo ima pristup, ispitanici su mogli dati više odgovora. Istraživanje pokazuje da 98,3% kućanstava posjeduje TV, a 90,6% kućanstava posjeduje mobilni telefon

On the question relating to devices which household has access, respondents could give more than one answer. The survey shows that 98.3% of households own a TV and 90.6% of households own a mobile phone.

Grafikon 5. Postotak korisnika računala, prema starosnoj dobi
Graph 5. Share of computer users, by age



Internet u kućanstvima

Rezultati istraživanja o uporabi informacijsko-komunikacijskih tehnologija u kućanstvima i pojedinačno (IKT-D) u Bosni i Hercegovine, pokazali su sljedeće:

- kućanstva imaju pristup internetu: 72,0%
- kućanstva nemaju pristup internetu: 27,3%
- kućanstvo ne zna da li ima pristup internetu: 0,7%

U Bosni i Hercegovini 72,0% kućanstava ima pristup internetu, što je povećanje od 2,8% u odnosu na 2018. godinu.

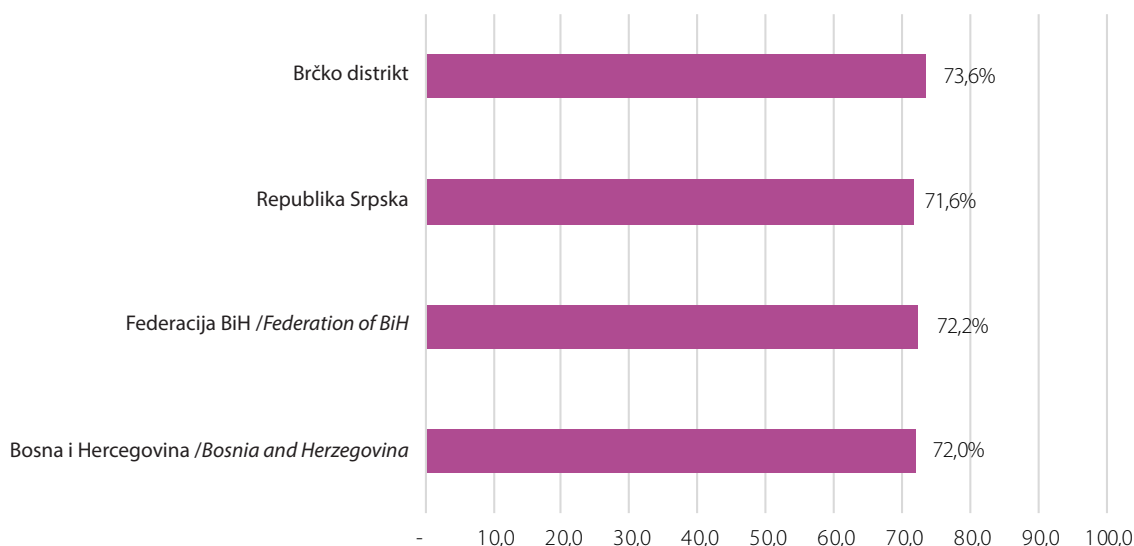
Internet in households

The results of the survey on the use of information and communication technologies in households and individually (ICT-HH) in Bosnia and Herzegovina have shown the following:

- *households have access to the Internet: 72.0%*
- *households do not have Internet access: 27.3%*
- *households do not know whether it has access to the Internet: 0.7%*

In Bosnia and Herzegovina, 72.0% of households have internet access, an increase of 2.8% compared to 2018.

Grafikon 6. Postotak kućanstava koja posjeduju internet priključak, BiH 2019.
Chart 6. Percentage of households that own internet connection, BiH 2019



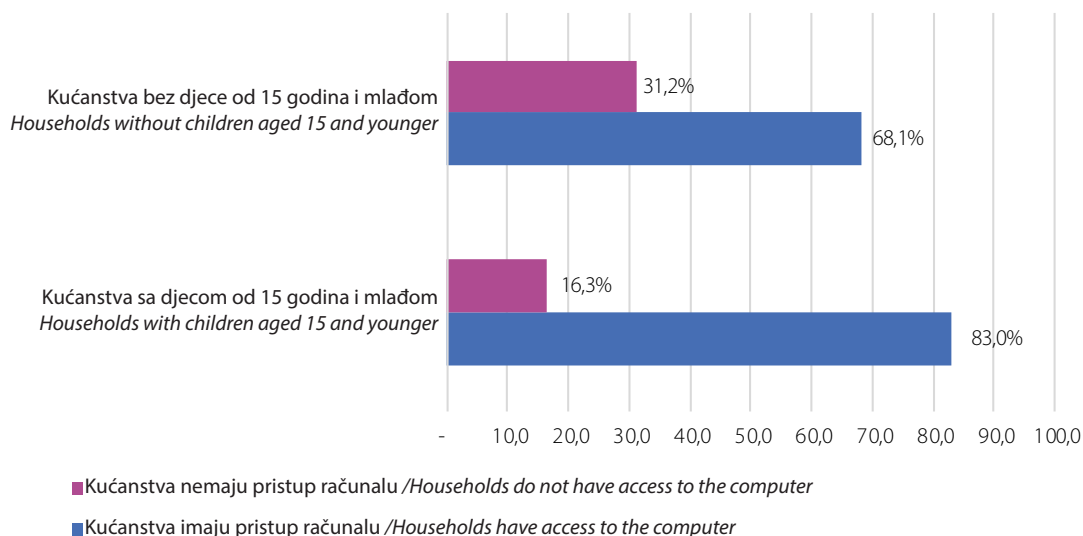
Rezultati istraživanja su pokazali da 83,0% kućanstava koja imaju djecu ispod 16 godina imaju pristup internetu.

Rezultati istraživanja su pokazali da 68,1% kućanstava koja nemaju djecu ispod 16 godina, imaju pristup internetu.

The survey results showed that 83.0% of households with children under 16 have an internet access.

The 68.1% of households have access to the Internet, without children aged under 16.

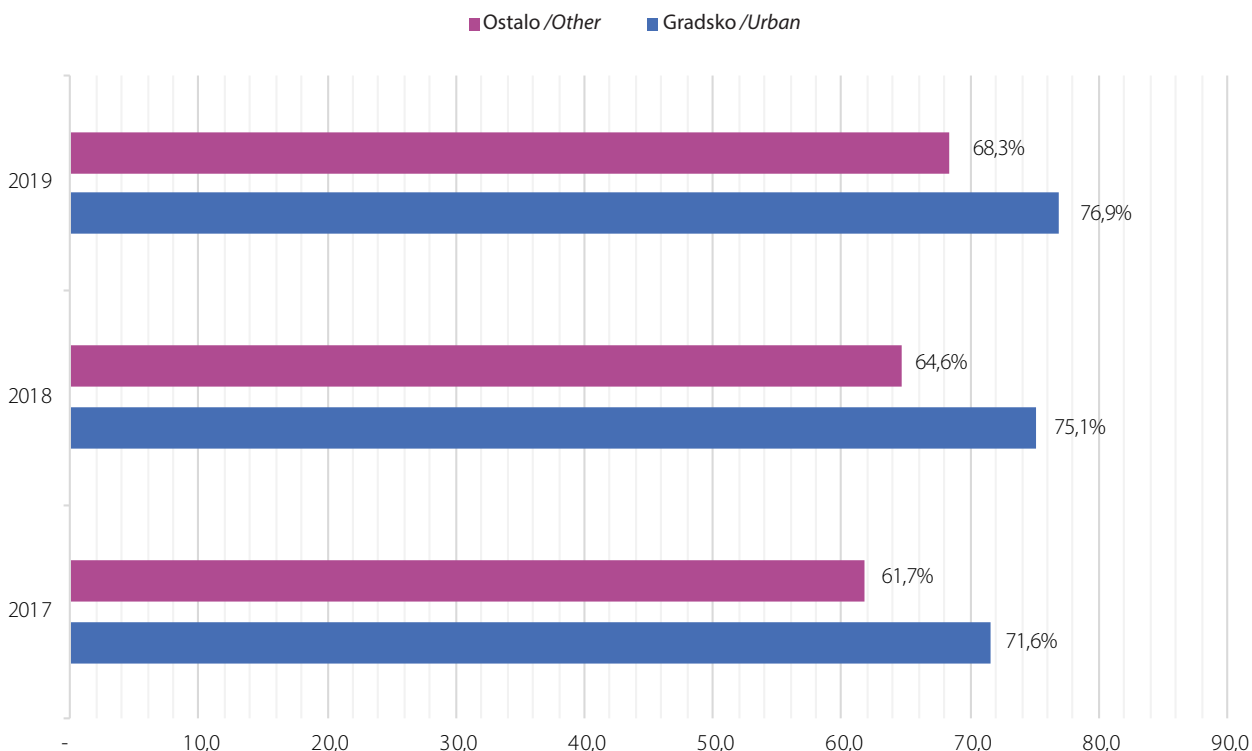
Grafikon 7. Postotak kućanstava koja imaju pristup internetu, sa djecom od 15 godina i mlađom, BiH
Graph 7. Percentage of households which have access to the Internet, with children aged 15 and younger, BiH



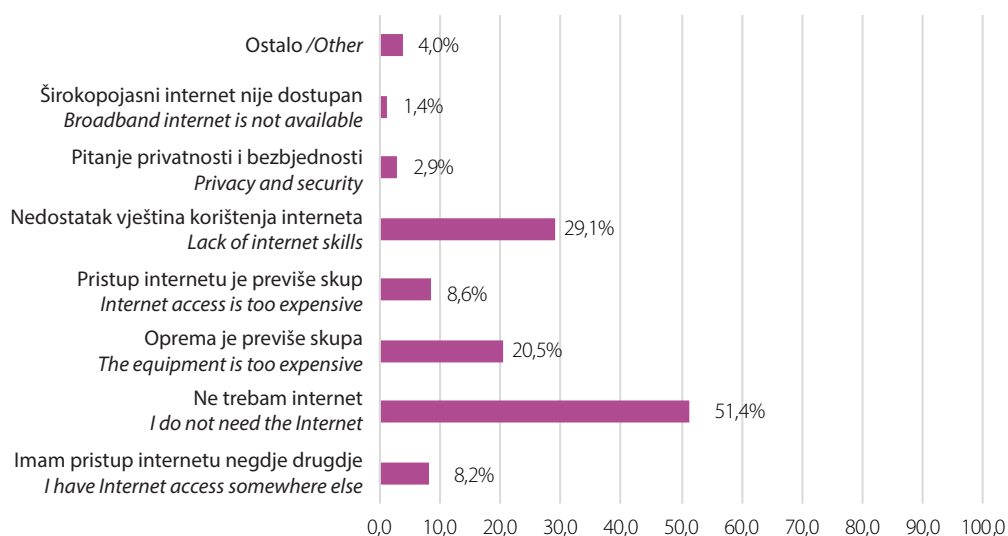
Internet priključak u kućanstvima varira zavisno o tipu naselja. U gradskim sredinama 76,9% kućanstava ima internet priključak u ostalim sredinama 68,3%

Internet connection in households varies depending on the type of settlement. In urban areas 76.9% of households have internet connection in other areas 68.3%

Grafikon 8. Postotak kućanstava koja posjeduju internet priključak, prema tipu naselja
Graph 8. Percentage of households that own internet connection, by the type of settlement



Grafikon 9. Razlog zbog kojeg kućanstva nemaju internet priključak, BiH 2019
Graph 9. The reason why households have no internet connection, BiH 2019



Najčešće navedeni razlozi zbog kojih kućanstvo nema pristup internetu kod kuće:

- 51,4% nema potrebu za internetom
- 29,1% nedostatak vještina

Most common reasons why a household does not have internet access at home::

- *51,4% There is no need for the internet*
- *29.1% Lack of skills*

Pojedinci: uporaba računala¹
(Računalo je stolno računalo, laptop, netbook ili tablet računalo)

U Bosni i Hercegovini je 62,2% osoba u posljednja tri mjeseca koristilo računalo, 2,2% osoba je koristilo računalo prije više od tri mjeseca, a 6,9% prije više od godinu dana. Čak 28,7% osoba nikada nije koristilo računalo.

Udio korisnika računala po spolu:

- Muškarci: 63,7%
- Žene: 60,9%

Udio korisnika računala prema starosnoj dobi:

- starosne dobi od 16-24: 95,2%
- starosne dobi od 25-54: 77,2%
- starosne dobi od 55-74: 35,2%

Individuals: use of computers¹
(Computers are: desktop, laptop, netbook, tablet)

In Bosnia and Herzegovina, in the last three months 62.2% of persons used a computer, 2.2% of persons use the computer more than three months, and 6.9% more than a year ago. Even 28.7% of respondents have never used a computer.

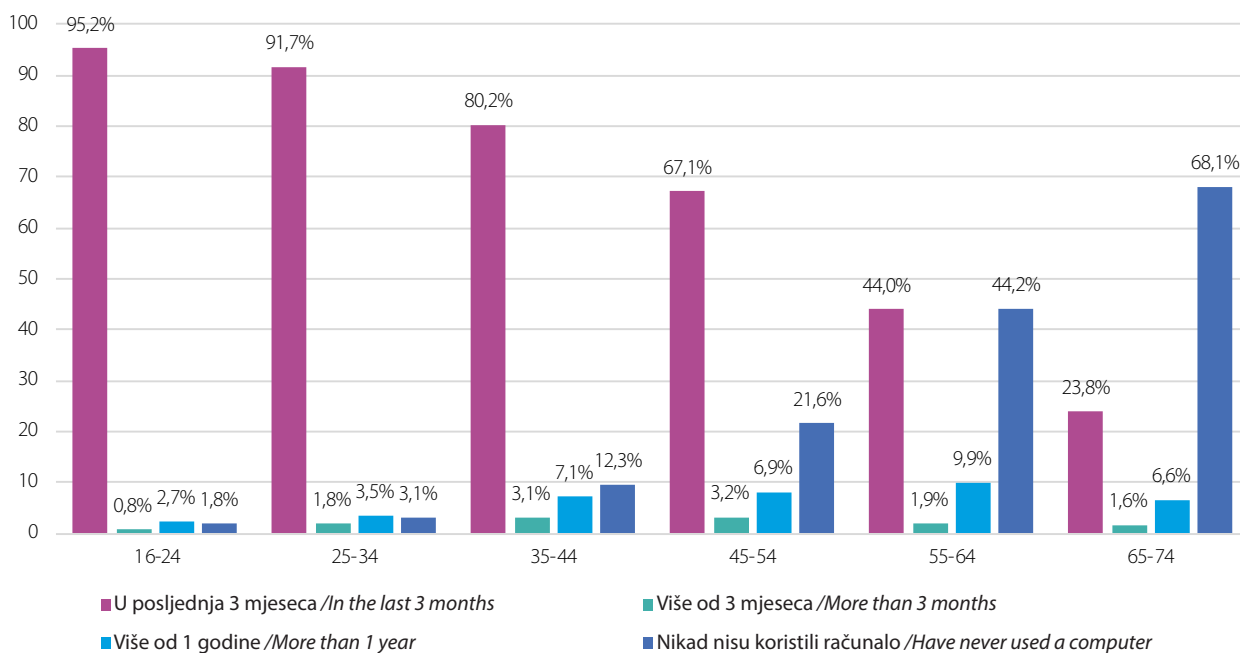
Share of computer users by gender:

- Males: 63,7%
- Females: 60,9%

Share of computer users by age:

- 95.2% of the age of 16-24;
- 77.2% of the age of 25-54;
- 35.2% of the age of 65-74.

Grafikon 10. Postotak korisnika računala, prema starosnoj dobi
Graph 10. Percentage of computer users, by age



Udio korisnika računala prema obrazovnoj (u posljednja 3 mjeseca) razini ispitanika:

- osobe sa višim i visokim obrazovanjem: 95,3%
- osobe sa srednjim obrazovanjem: 67,1%
- osobe sa osnovnim ili niže srednjim obrazovanjem: 35,0%

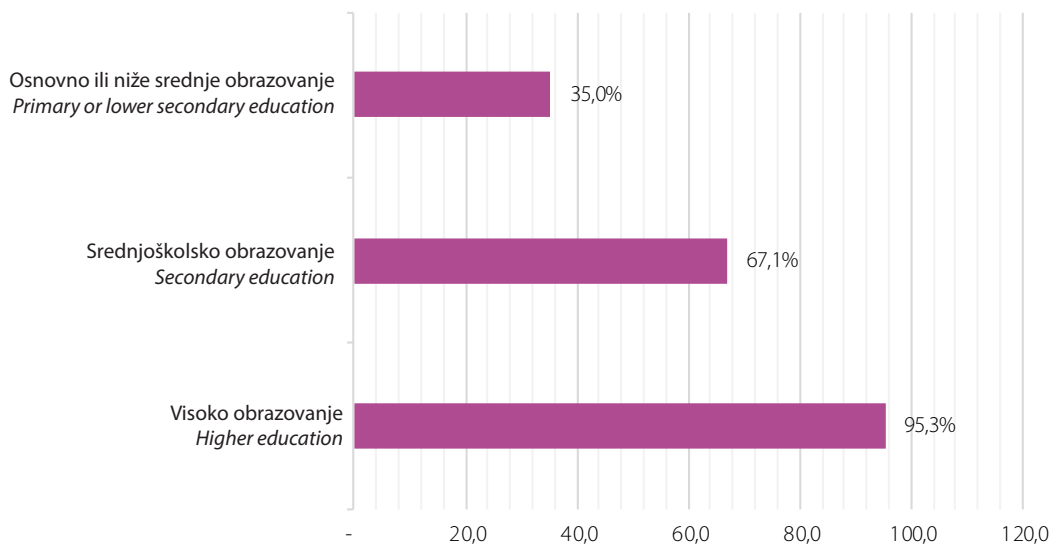
Share of computer users (in the last three months), by educational attainment level:

- persons with higher education: 95.3%
- persons with secondary education: 67.1%
- persons with primary or lower secondary education: 35.0%

¹ Referentno razdoblje I tromjesjeće 2019.

¹ Reference period I quarter 2019

Grafikon 11. Udio korisnika računala (u posljednja tri mjeseca), prema razini obrazovanja, Bosna i Hercegovina
Graph 11. The share of computer users (in the last three months), by education level, Bosnia and Herzegovina



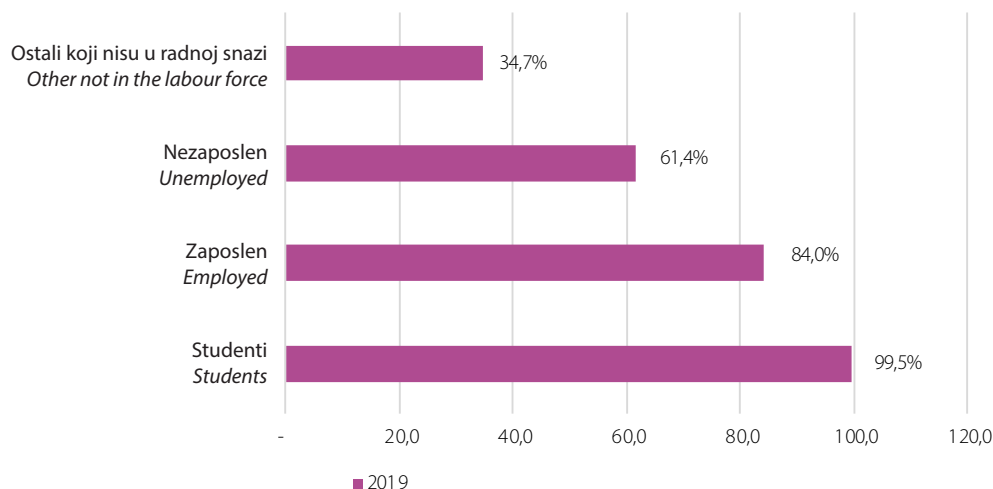
Udio korisnika računala (u posljednja 3 mjeseca) prema radnom statusu ispitanika:

- Studenti: 99,5%
- Zaposleni: 84,0%
- Nezaposleni: 61,4,0%
- Ostali (umirovljenici, neaktivni i sl.)/34,7%

Share of computer users (in the last three months), by to employment situation:

- *Student: 99.5%*
- *Employed: 84.0%*
- *Unemployed: 61.4%*
- *Other not in the labour force (retired, inactive, etc.): 34.7%*

Grafikon 12. Udio korisnika računala (u posljednja tri mjeseca), prema radnom statusu, Bosna i Hercegovina
Graph 12. The share of computer users (in the last three months), according to the working status, Bosnia and Herzegovina



Pojedinci: uporaba interneta

U Bosni Hercegovini je 70,0% osoba koristilo internet u posljednja tri mjeseca, 0,9% ispitanika koristilo je internet prije više od tri mjeseca, a 3,0% prije više od godinu dana. Ispitanici koji nikad nisu koristili internet je 26,1%.

Udio korisnika interneta (u posljednja tri mjeseca), prema razini obrazovanja:

- osobe s višim i visokim obrazovanjem: 95,2%
- osobe sa srednjim obrazovanjem: 76,6%
- osobe sa osnovnim ili niže srednjim obrazovanjem: 42,0%

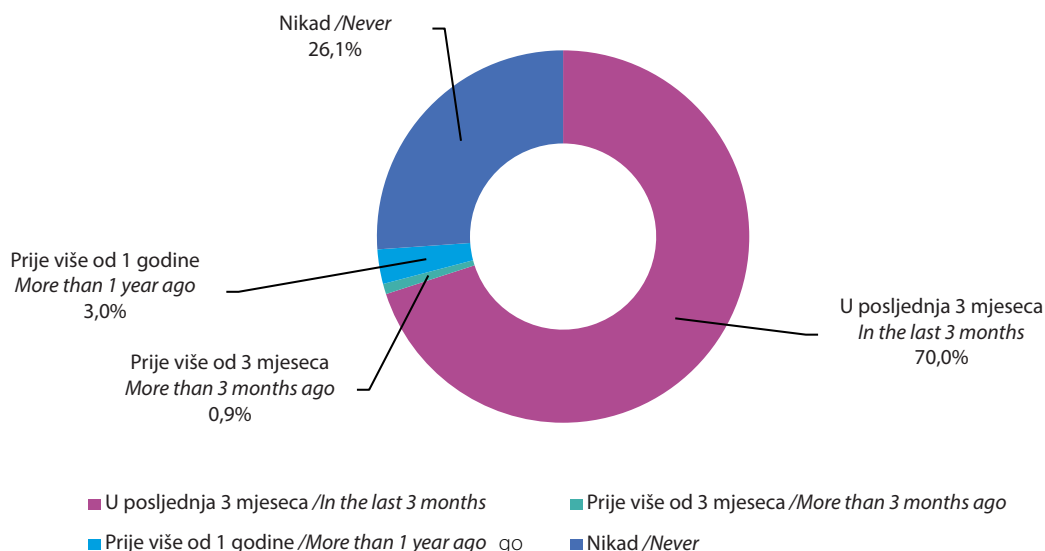
Individuals: us of the Internet

In Bosnia-Herzegovina, 70,0% of persons used the Internet during the last three months, 0.9% of respondents used the internet more than three months ago, and 3.0% more than a year ago. 26.1% of respondents never used the Internet.

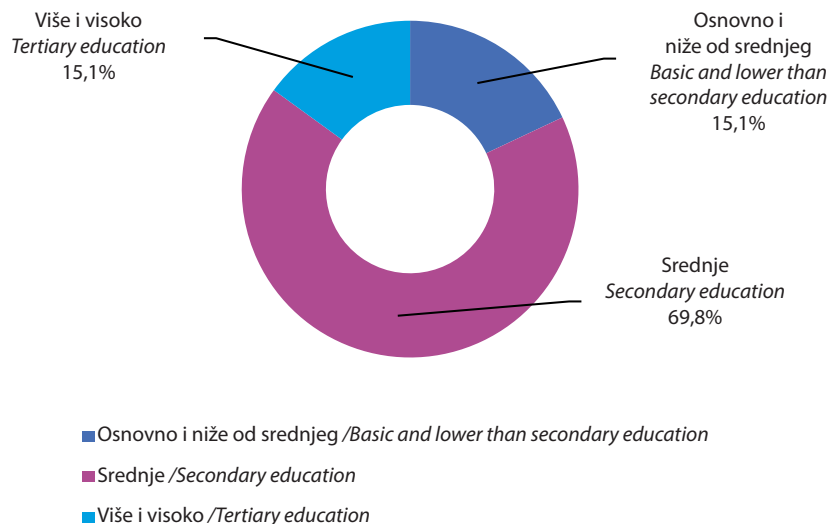
Share of Internet users (in the last three months), by educational attainment level:

- persons with higher education: 95.2%
- persons with secondary education: 76.6%
- persons with primary or lower secondary education: 42.0%

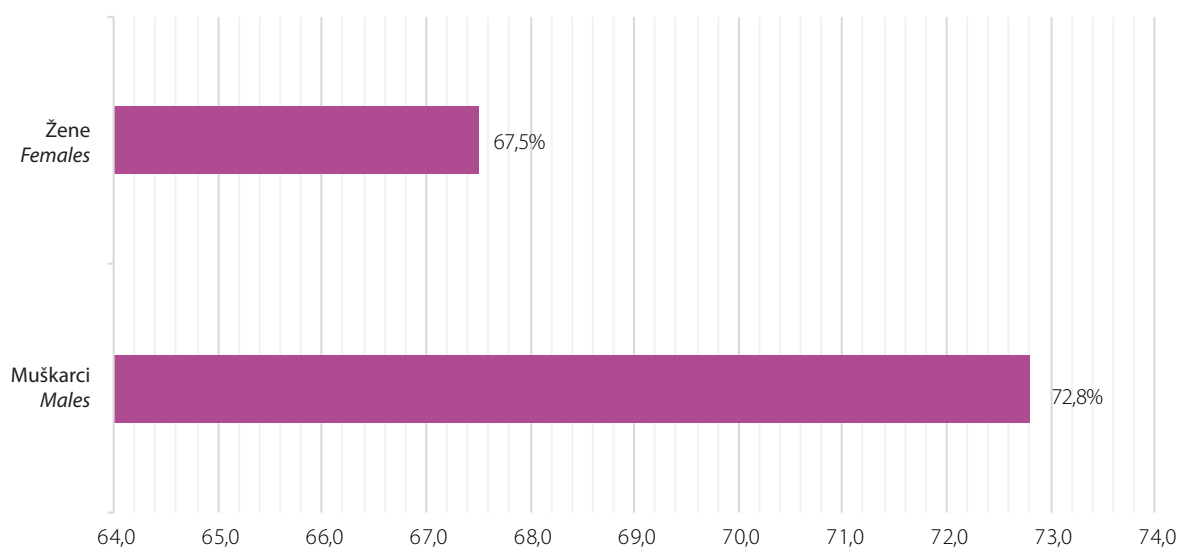
Grafikon 13. Osobe koje su koristile internet
Graph 13. Persons who used the Internet



Grafikon 14. Struktura obrazovanja korisnika interneta
Graph 14. Structure of education of Internet users



Grafikon 15. Udio korisnika interneta (u posljednja tri mjeseca), prema spolu, Bosna i Hercegovina
Graph 15. The share of Internet users (in the last three months), by gender, Bosnia and Herzegovina



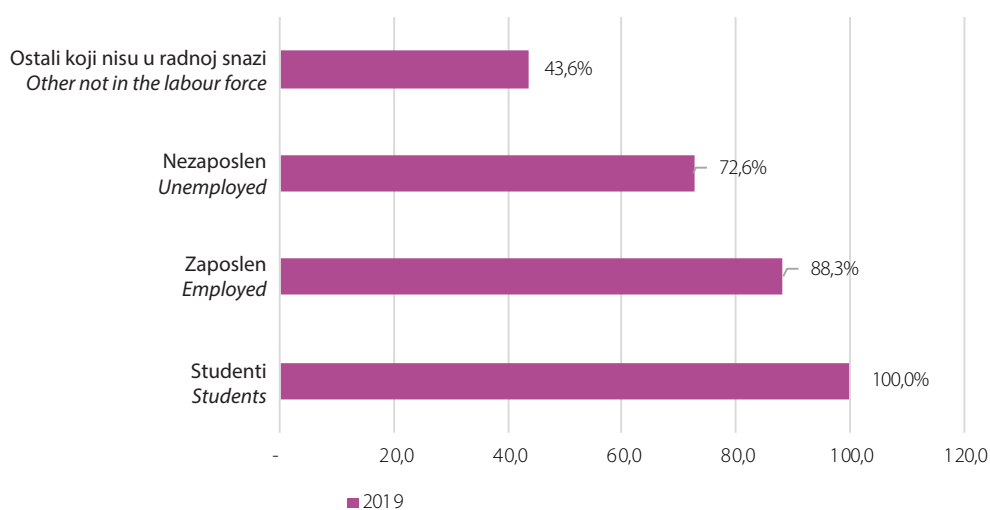
Postotak korisnika interneta u zadnja tri mjeseca, prema radnom statusu:

- 88,3% zaposlenih osoba;
- 72,6% nezaposlenih osoba;
- 100,0% studenata;
- 43,6% ostalih (umirovljenici, neaktivne osobe)

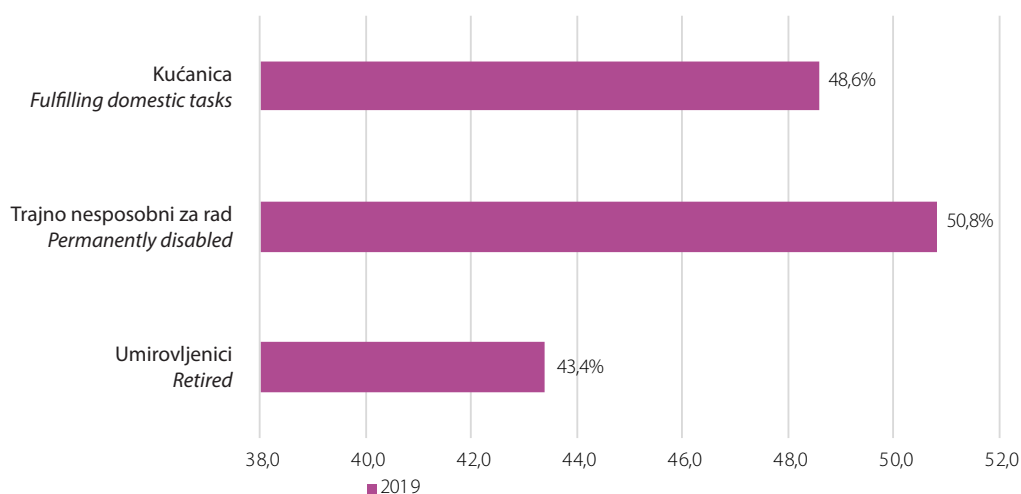
The share of Internet users is three months, by to the working status:

- 88.3% of employed persons;
- 72.6% of unemployed persons;
- 100.0% of students;
- 43.6% of others (pensioners, inactive persons)

Grafikon 16. Udio korisnika interneta (u posljednja tri mjeseca), prema radnom statusu, Bosna i Hercegovina
Graph 16. The share of Internet users (in the last three months), by to employment situation, Bosnia and Herzegovina



Grafikon 17. Udio korisnika interneta (u posljednja tri mjeseca), ispitanici koji nisu u radnom satusu, BiH
Graph 17. The share of Internet users (in the last three months), Other not in the labour force respondents, BiH



Na pitanje koliko su često, u prosjeku, koristili internet tijekom posljednja tri mjeseca, 92,9% ispitanika odgovorilo je: svakog dana ili skoro svakog dana.

Više od 1.350.000 osoba koristi internet nekoliko puta dnevno.

Rezultati istraživanja pokazali su sljedeće:

- starosne dobi od 16-24 godine, 94,6% ispitanika koristi internet nekoliko puta dnevno;
- starosne dobi od 25-54 godine, 75,7% ispitanika koristi internet nekoliko puta dnevno;
- starosne dobi od 55-74 godine, 32,1% ispitanika koristi internet nekoliko puta dnevno.

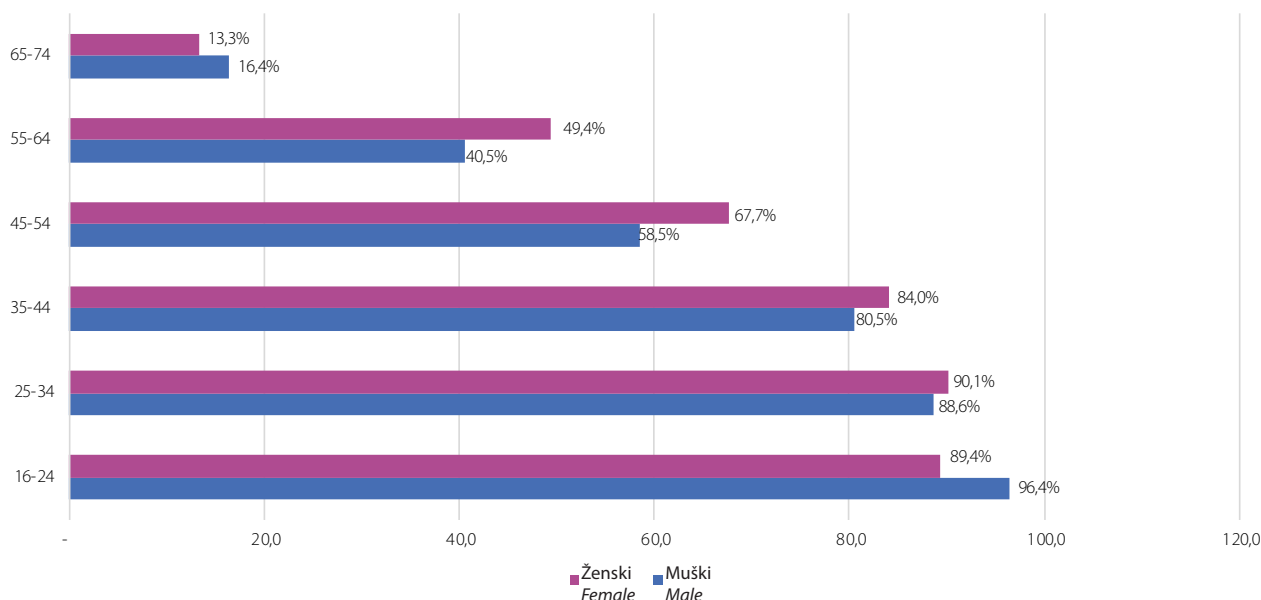
When asked how often they used the Internet for the last three months on average, 92.9% respondents answered: every day or almost every day

More than 1,350,000 people use the Internet several times during the day

The results of the survey showed the following:

- *94.6% of respondents use the Internet several times during the day, age 16-24;*
- *75.7% of respondents use the Internet several times during the day, age 25-54*
- *32.1% of respondents use the internet several times during the day, age 55-74.*

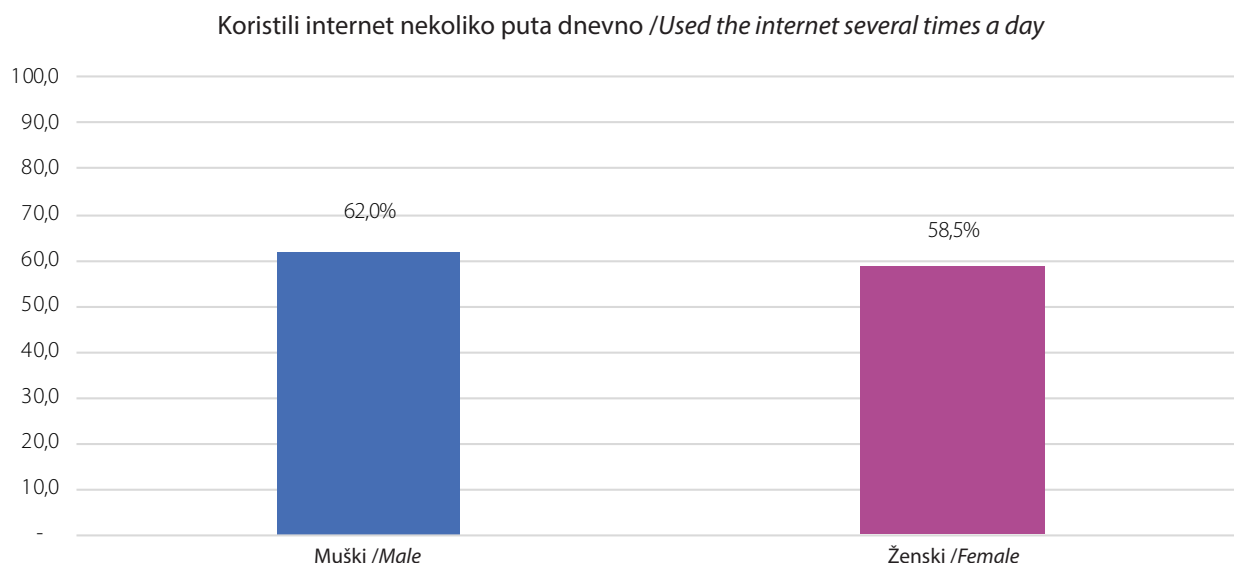
Grafikon 18. Korištenje interneta (nekoliko puta dnevno), prema spolu i starosti, Bosna i Hercegovina, 2019.
Graph 18. Internet usage (several times during the day), by sex and age, Bosnia and Herzegovina, 2019



Analiza ispitanika prema spolu pokazuje da internet koristi nekoliko puta dnevno 62,0% osoba muškog spola, a 58,5% osoba ženskog spola koristilo internet.

An analysis of respondents by gender shows that Internet usage several times during the day, 62.0% of males and 58.5% females used the Internet.

Grafikon 19. Udio korisnika interneta (nekoliko puta dnevno) prema spolu
Graph 19. The share of Internet users (several times during the day), by gender

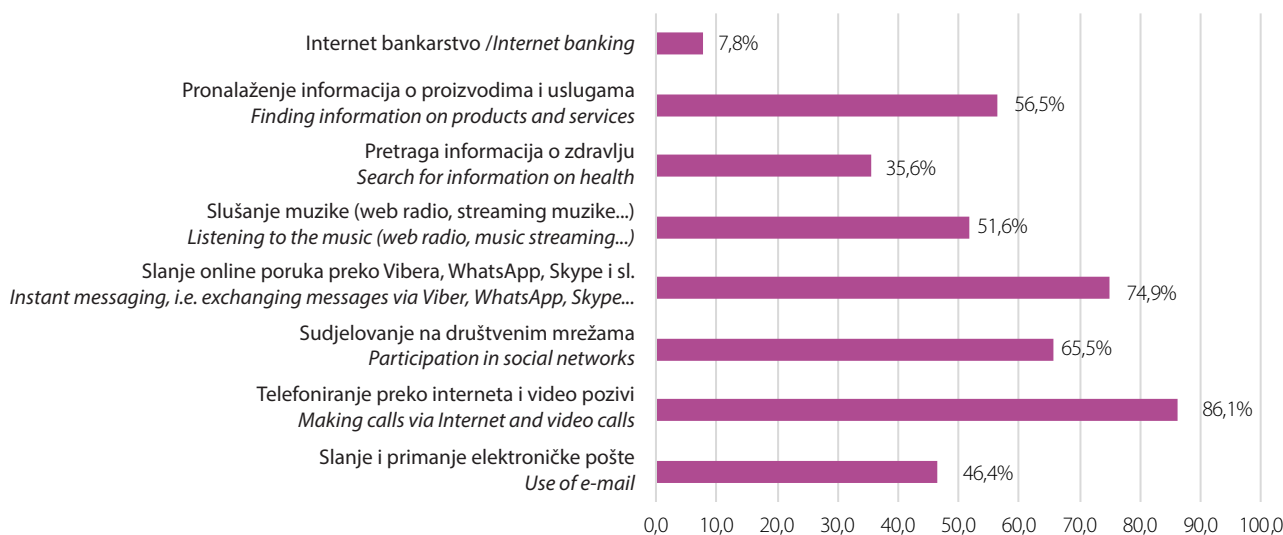


Ispitanici koji su koristili internet tijekom posljednja tri mjeseca, internet u velikoj mjeri koristili za telefoniranje preko interneta i video pozive (86,1%), slanje online poruka preko Skype, Messenger, WhatsApp, Viber, itd. (74,9%), sudjelovanje na društvenim mrežama (65,5%), čitanje internet portala, online novina, časopisa (62,5%), pronalaženje informacija o proizvodima i uslugama (56,5%), sudjelovanje na društvenim mrežama kao što su Facebook i Twitter (65,7%), značajan broj ispitanika koristili su internet za slušanje muzike (web radio, streaming muzike) (51,6%).

During the last three months, respondents have largely used the Internet for phone calls over the Internet and video calls (86.1%), using instant messaging, i.e. exchanging messages, for example, via Skype, Messenger, WhatsApp, Viber (74.9%), participating in social networks (65.5%), Reading online news sites / newspapers / news Magazines (62.5%), finding information about products and services (56.5%), participation on social networks like Facebook and Twitter (65.7%), a significant number of respondents used the internet to listening to music (e.g. web radio, music streaming) (51.6%).

Grafikon 20. Najčešći tipovi korištenja interneta (u privatne svrhe) u posljednja tri mjeseca u postotcima, Bosna i Hercegovina, 2019.

Graph 20. The most common types of internet use (for private use) in the last three months, in percentages, Bosnia i Herzegovina 2019



Internet populacija od 16 do 24 godine najčešće je koristila internet za telefoniranje preko interneta i video pozive sa 96,7 %.

Internet populacija od 65 do 74 godine, najčešće je koristila internet za telefoniranje i video pozive 84,7%. Slanje online poruka preko Skype, Messenger, WhatsApp, Viber i sl., najviše je koristila internet populacija od 55 do 64 godine, 86,9%.

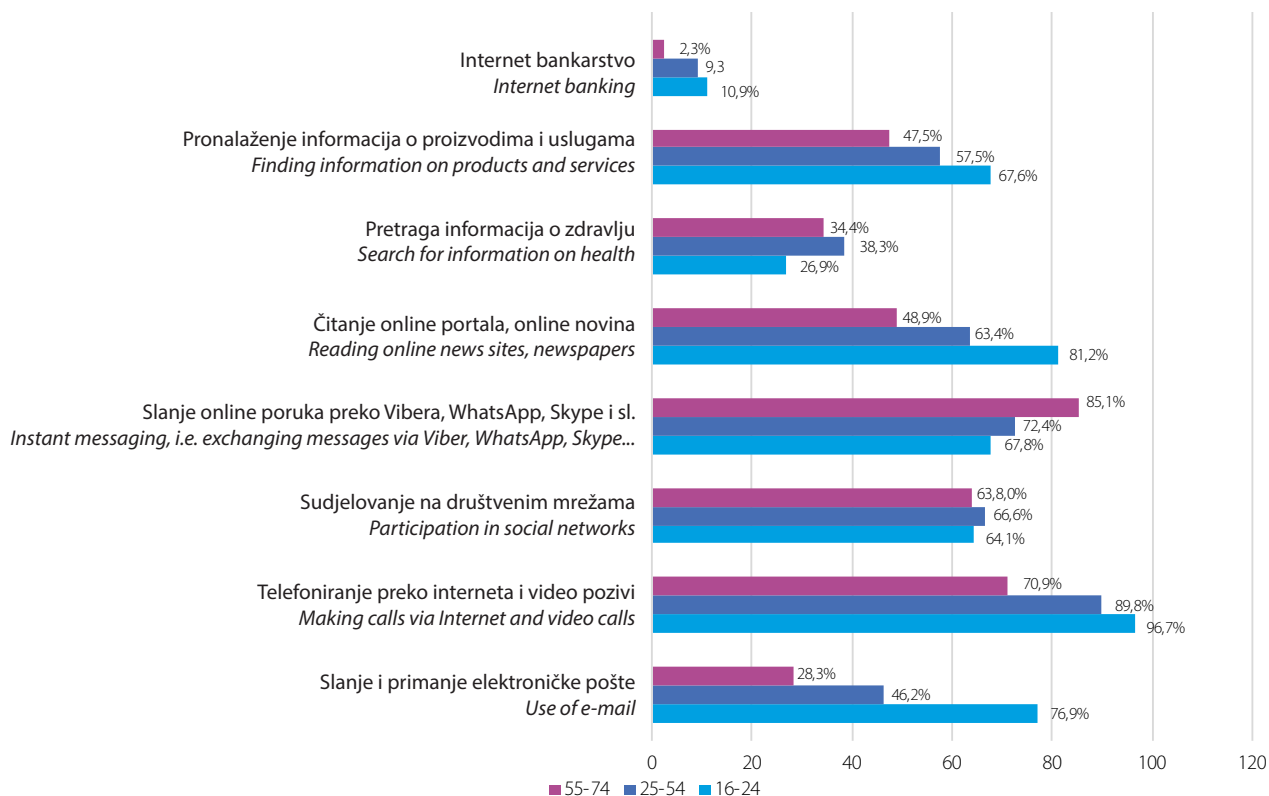
Usluge internet bankarstva najviše koristi populacija od 16-24 i on iznosi 10,9%.

The Internet population of 16 to 24 years is the most common use of the Internet for making calls and internet video calls with 96.7%.

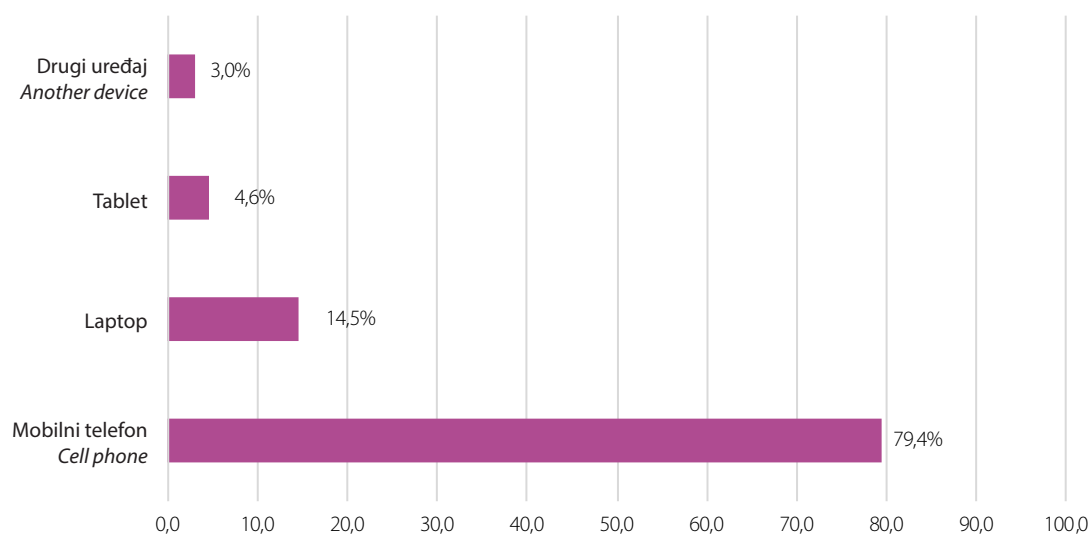
Internet populations from 65 to 74, most often used the Internet for making calls and internet video calls 84.7%. Using instant messaging, i.e. exchanging messages, for example, via Skype, Messenger, WhatsApp, Viber was most used by the Internet population of 55 to 64 years, 86.9%.

Internet banking services are mostly used by the population of 16-24 and it is 10.9%.

Grafikon 21. Najčešći tipovi korištenja interneta (u privatne svrhe) u posljednja tri mjeseca u postotcima, po starosnoj dobi
Graph 21. The most common types of internet use (for private use) in the last three months, in percentages, by age



Grafikon 22. Mobilni uređaji koji se koriste za pristup internetu, izvan kuće ili posla, u posljednja 3 mjeseca
Graph 22. Mobile devices to access the Internet away from home or do business in the last 3 months



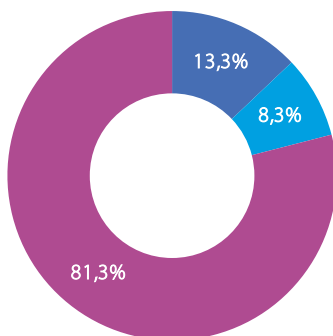
Na pitanje „Koriste li web stranicu ili aplikaciju radi rezervacije smještaja (sobe, apartmana, kuće, vikendice za odmor) u posljednjih 12 mjeseci“, internet korisnici su odgovorili²:

- Da, posredničke web stranice ili aplikacije posvećene rezerviranju smještaja (kao što je Airbnb ili Booking) 13,3%
- Da, druge web stranice i aplikacije (uključujući društvene mreže) 8,3%
- Ne, nisam 81,3%

To the question „Have you used any website or app to arrange an accommodation (a room, apartment, house, holiday cottage, etc.) in the last 12 months“, the results showed the following²:

- Yes, intermediary websites or apps dedicated to arranging accommodation such as (Airbnb, Booking) 13,3%
- Yes, other websites or apps (including social networks) 8,3%
- No, I have not 81,3%

Grafikon 23. Koriste li web stranicu ili aplikaciju radi rezervacije smještaja (sobe, apartmana, kuće, vikendice za odmor) u posljednjih 12 mjeseci
Graph 23. Have you used any website or app to arrange an accommodation (a room, apartment, house, holiday cottage, etc.) from another private individual in the last 12 months



- Da, koristio/la sam web stranice ili aplikacije (kao npr. AirBnB, Booking i sl.)
Yes, intermediary websites or apps dedicated to arranging accommodation (such as AirBnB, Booking...)
- Da, druge web stranice i aplikacije (uključujući društvene mreže)
Yes, other websites or apps (including social network)
- Ne, nisam
No, I have not

Na pitanje „Da li ste koristili bilo koju web stranicu ili aplikaciju da bi dogovorili uslugu prijevoza (npr. automobilom) od druge osobe u posljednjih 12 mjeseci“, rezultati istraživanja su pokazali sljedeće³:

- Da, posredničke web stranice ili aplikacije posvećene organizaciji usluge prevoza 2,6%
- Da, druge web stranice ili aplikacije (uključujući društvene mreže) 2,6%
- Ne, nisam 95,6%

To the question „Have you used any website or app to arrange a transport service (e.g. by car) from another private individual in the last 12 months“, the results showed the following³:

- Yes, intermediary websites or apps dedicated to arranging transport services 2,6%
- Yes, other websites or apps (including social networks) 2,6%
- No, I have not 95,6%

² Podaci se odnose na internet populaciju, odnosno na one pojedince koji koriste internet u zadnja 3 mjeseca.
² Data refer to the Internet population, or to those individuals who have been using the Internet in the last 3 months.
³ Podaci se odnose na internet populaciju, odnosno na one pojedince koji koriste internet u zadnja 3 mjeseca.
³ Data refer to the Internet population, or to those individuals who have been using the Internet in the last 3 months.

Javna uprava

Istraživanje pokazuje da 25,3% ispitanika koji su koristili internet u privatne svrhe, u posljednjih 12 mjeseci, koristili su elektroničke servise javne uprave (e-government).

Istraživanje je pokazalo i da je 20,9% internet populacije koristilo internet za dobijanje informacija sa web sajta javnih institucija, a 14,0% internet populacije je slalo putem interneta ispunjene obrasce javnoj upravi.

Internet populacija starosne dobi od 35-44 godine je najviše koristila usluge javne uprave, 30,9%.

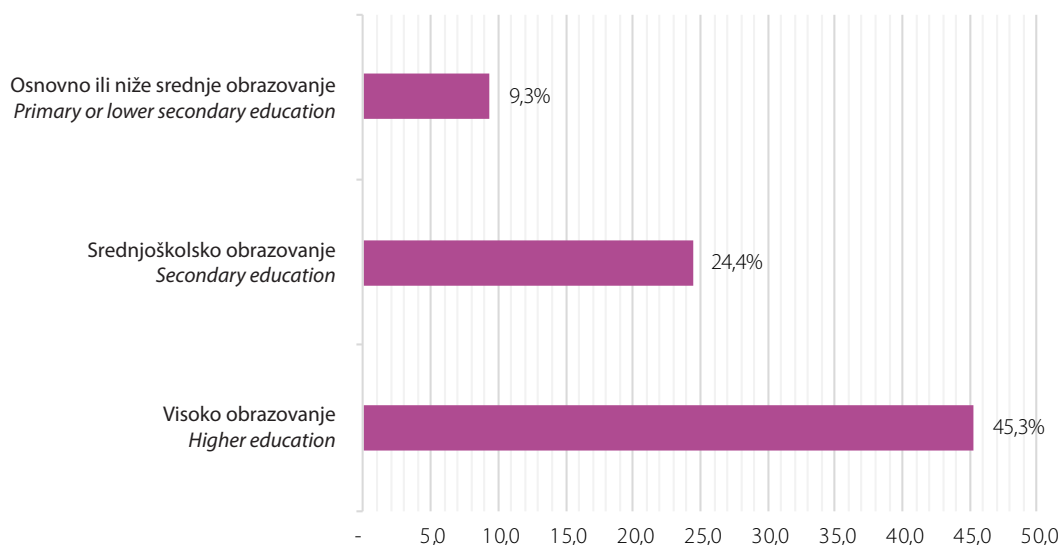
E-government

The survey shows that 25.3% of respondents who use the Internet for private purposes in the last 12 months, used electronic government services (e-government).

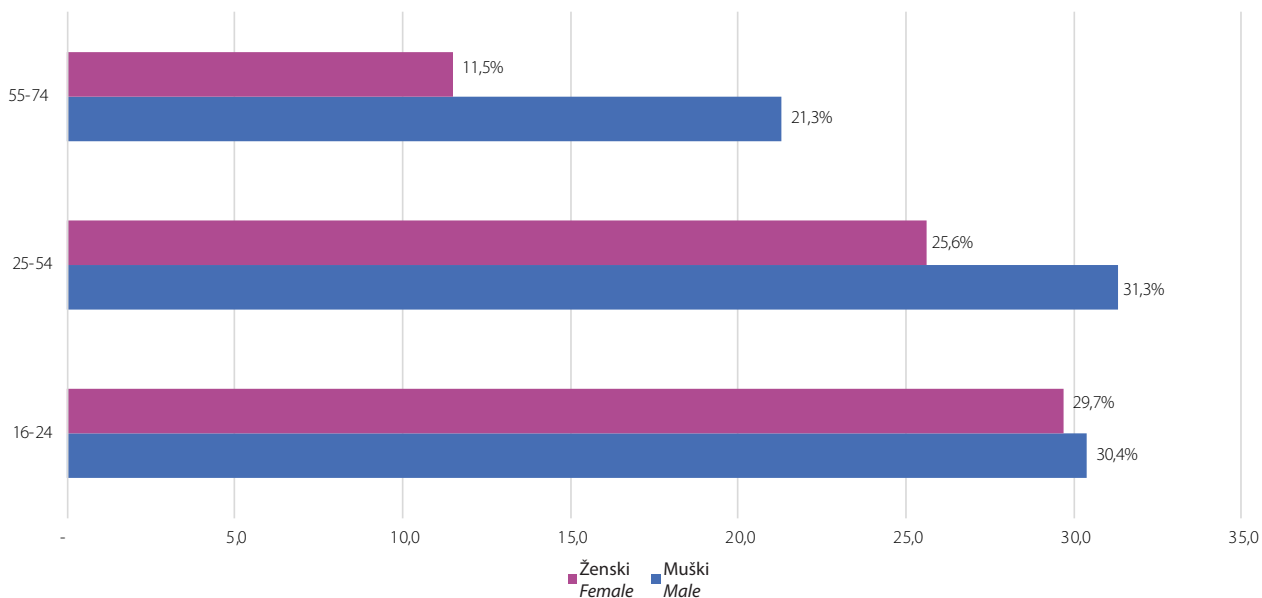
The survey also showed that 20.9% of the internet population used the Internet to obtain information from the public institution's website, and 14.0% of the internet population sent via Internet filled forms to the public administration.

The Internet population aged 35-44 was mostly used by public administration services, 30.9%.

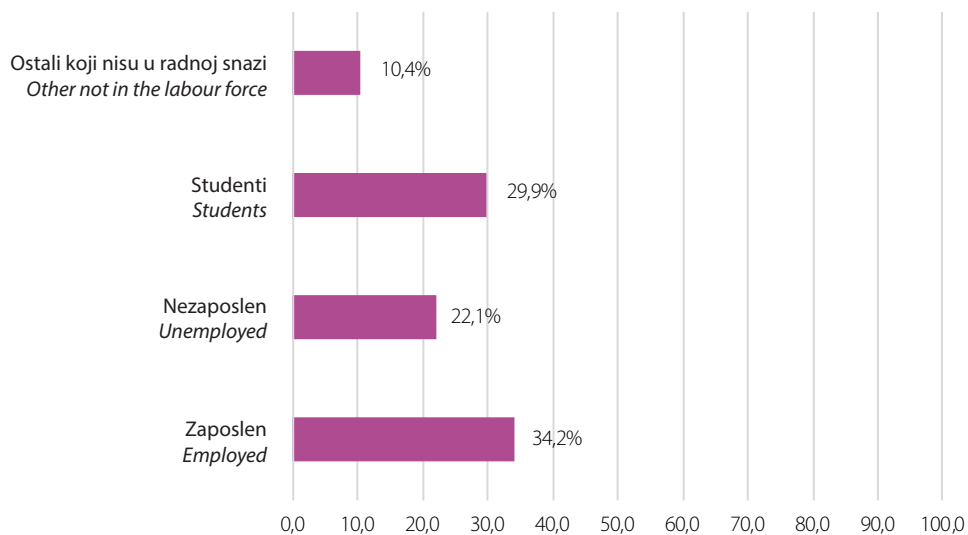
Grafikon 24. Uporaba interneta radi korištenja usluga javne uprave u posljednjih 12 mjeseci, prema razini obrazovanja
Graph 24. Use of the Internet in order to use services or services of public administration in the last 12 months, by education level



Grafikon 25. Uporaba interneta radi korištenja usluga javne uprave u posljednjih 12 mjeseci, prema spolu i starosti
Graph 25. Use of the Internet in order to use services or services of public administration in the last 12 months, by sex and age



Grafikon 26. Uporaba interneta radi korištenja usluga javne uprave u posljednjih 12 mjeseci, prema radnom statusu
Graph 26. Use of the Internet in order to use services or services of public administration in the last 12 months, by employment situation



Elektronička trgovina

Kada je riječ o vremenskom okviru u kojem su korisnici interneta kupovali/naručivali robu ili usluge putem interneta, 25,5% internet korisnika obavilo je kupovinu/narudžbu u posljednja tri mjeseca, 6,6% prije više od tri mjeseca, a 4,3% prije više od godinu dana.

Čak 63,7% korisnika interneta nikada nije kupovalo/naručivalo robu ili usluge putem interneta.

U odnosu na 2018. godinu, broj osoba koje su kupovale /naručivale robu ili usluge putem interneta povećao se za oko 7%.

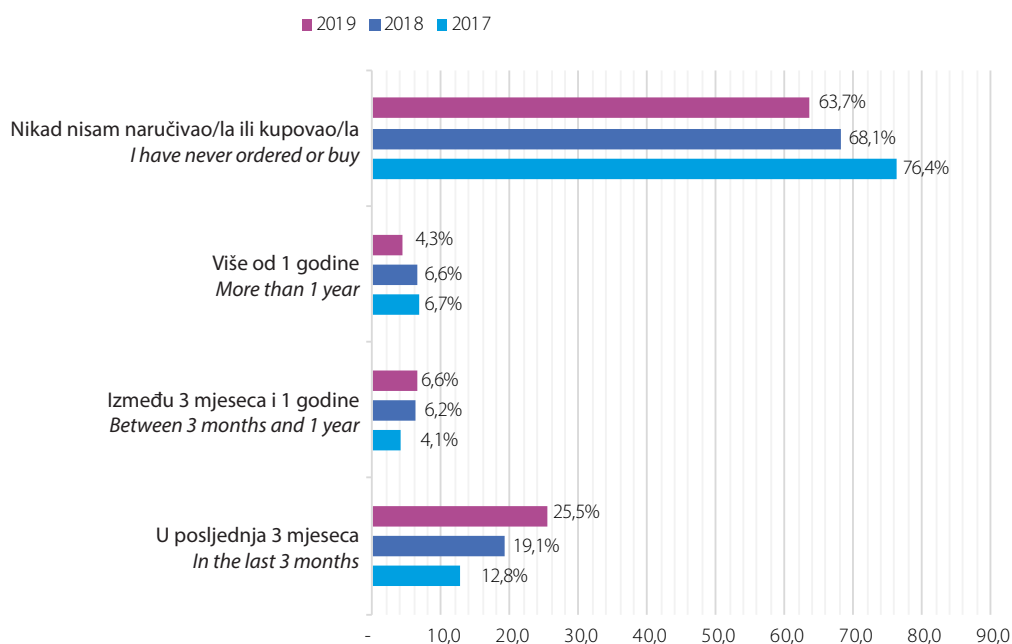
e-commerce

As for the time frame in which the internet users bought/ordered goods or services over the Internet, 25.5% of users conducted a purchase/order in the last three months, 6.6% more than three months ago, and 4.3% more than a year ago.

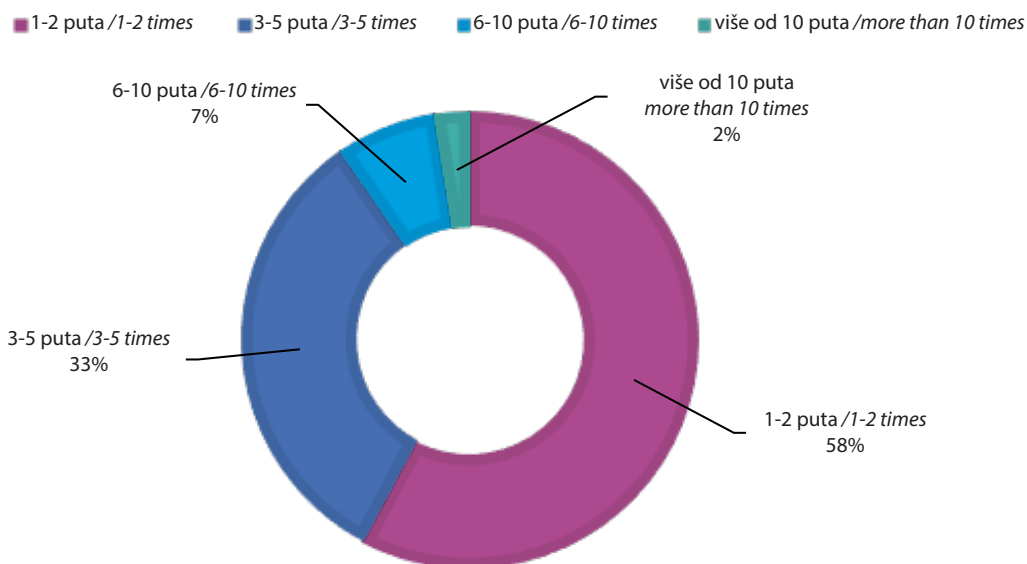
Even 63.7% of Internet users have never purchased /ordered goods or services over the Internet.

Compared to 2018, the number of people who bought /ordered goods or services over the Internet has increased by about 7%.

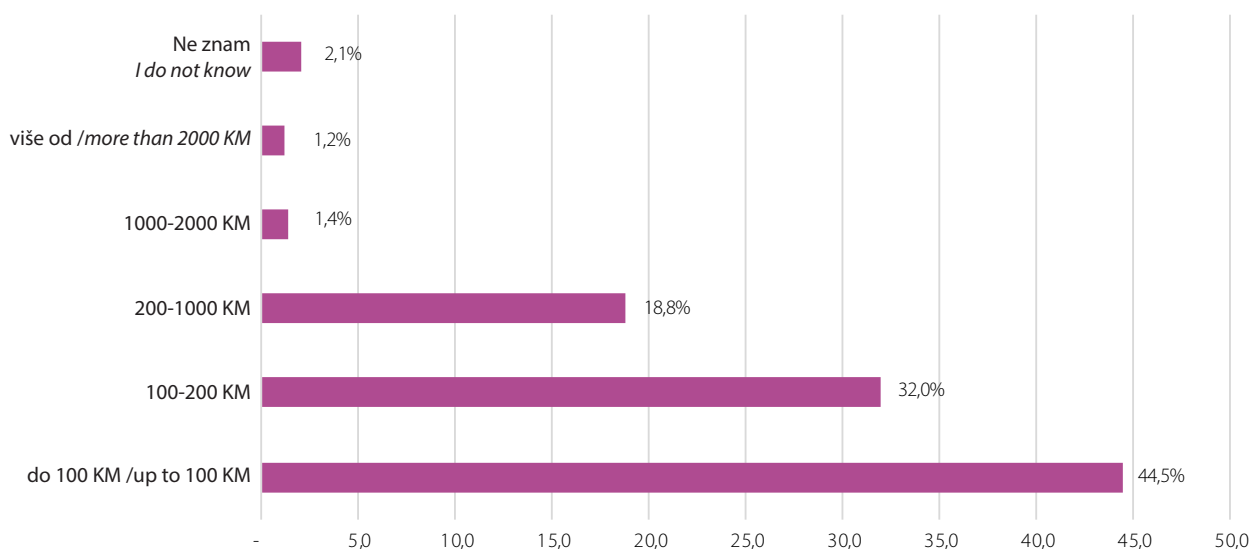
Grafikon 27. Posljednji put (u privatne svrhe) kupili/naručili robu ili usluge putem interneta
Graph 27. Last time (for private purposes) they bought / ordered goods or services via the Internet



Grafikon 28. Koliko često ste kupovali/naručivali robu ili usluge putem interneta u privatne svrhe u posljednja 3 mjeseca
Graph 28. How often have you purchased/ordered goods or services over the Internet for private purposes in the last 3 months



Grafikon 29. Novčani iznos kupljene/naručene robe ili usluge (pojedinci koji su kupovali zadnjih 3 mjeseca)
Graph 29. Amount purchased / ordered goods or services (individuals who bought the last 3 months)



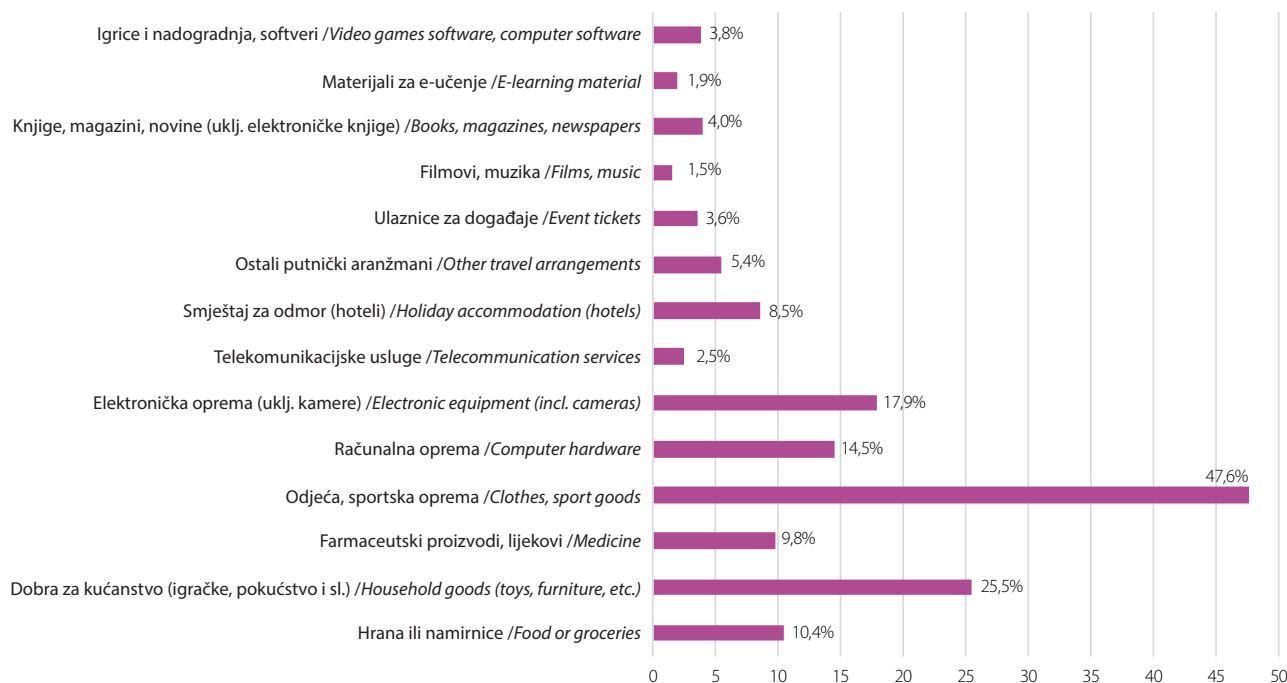
Pojedinci su najčešće naručivali proizvode ili usluge putem interneta u posljednjih 12 mjeseci:

- odjeću i sportsku opremu 47,6%;
- dobra za kućanstvo (pokućstvo, igračke...) 25,5%;
- elektronička oprema 17,9%;
- računalna oprema 14,5%;

Most often individuals have ordered products or services online over the last 12 months::

- clothing and sports equipment 47,6%;
- household goods 25.5%;
- electronic equipment 17.9% ;
- Computer hardware 14.5%;

Grafikon 30. Koju ste vrstu robe ili usluga kupili ili naručili putem interneta u posljednjih 12 mjeseci, u privatne svrhe⁴
Graph 30. What types of goods or services did you buy or order over the Internet for private use in the last 12 months⁴



Istraživanje je pokazalo da je 15,0% internet populacije koristilo *cloud* servise za pohranu sadržaja na internetu za spašavanje dokumenata, slika, muzike, video zapisa ili drugih fajlova u privatne svrhe, posljednja 3 mjeseca npr. Google Drive, Dropbox, Windows OneDrive (Formerly Skydrive), iCloud, Amazon Cloud Drive (*cloud* usluge).

The survey showed that 15.0% of the Internet population used cloud service to storage space on the Internet to save documents, images, music, videos or other files for private purposes, for the last 3 months, for example: Google Drive, Dropbox, Windows OneDrive (Formerly Skydrive), iCloud, Amazon Cloud Drive (cloud services).

⁴ Podaci se odnose na pojedince koji su putem interneta kupovali ili naručivali u zadnjih 12 mjeseci.

⁴ Data refer to individuals who have purchased or ordered online in the last 12 months.

E-vještine⁵

Koje od navedenih softverskih aktivnosti ste obavljali u posljednjih 12 mjeseci, rezultati istraživanja su pokazali sljedeće:

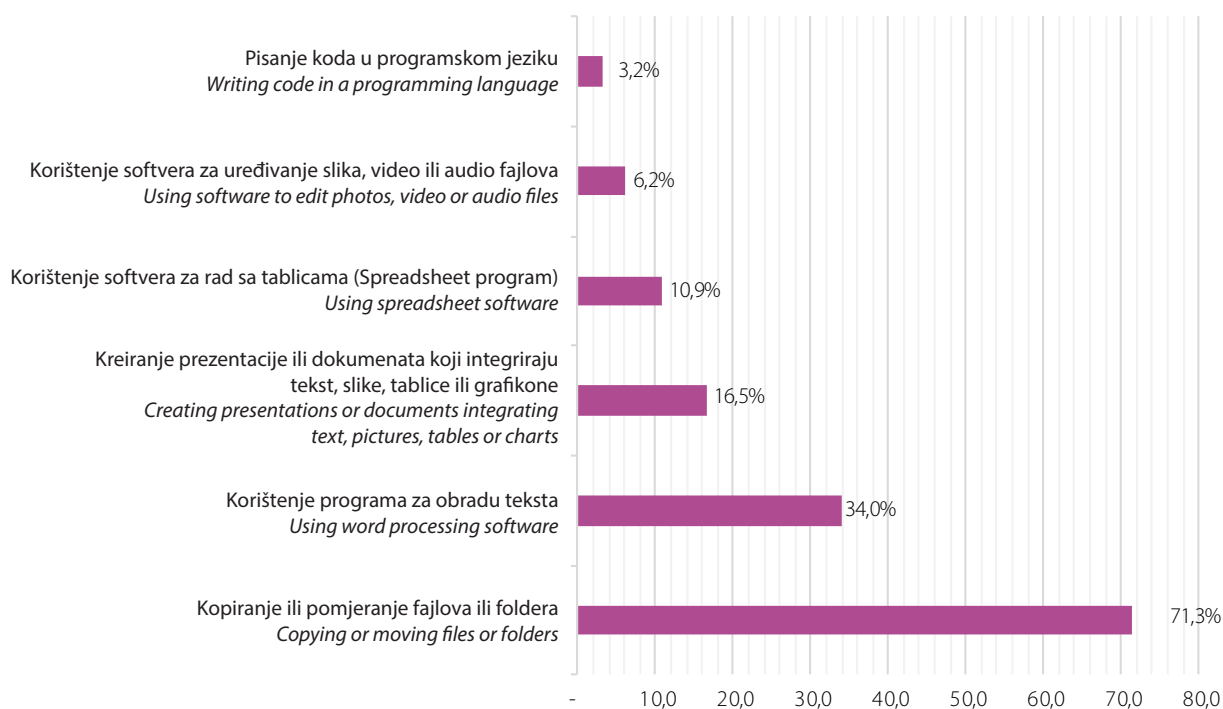
- Kopiranje ili pomjeranje fajlova ili foldera, 71,3%
- Korištenje programa za obradu teksta 34,0%
- Kreiranje prezentacije ili dokumenata koja integriraju tekst, slike, tablice ili grafikone 16,5%
- Korištenje softvera za rad sa tablicama (Spraedsheet program) npr.Excel 10,9%
- Korištenje softvera za uređivanje slika, videa ili audio fajlova 6,2%
- Pisanje koda u programskom jeziku 3,2%

e-skills⁵

Which of the following software related activities have you carried out in the last 12 month, the results showed the following:

- Copying or moving files or folders 71,3%
- Using word processing software 34,0%
- Creating presentations or documents integrating text, pictures, tables or charts 16,5%
- Using spread sheet software 10,9%
- Using software to edit photos, video or audio files 6,2%
- Writing code in a programming language 3,2%

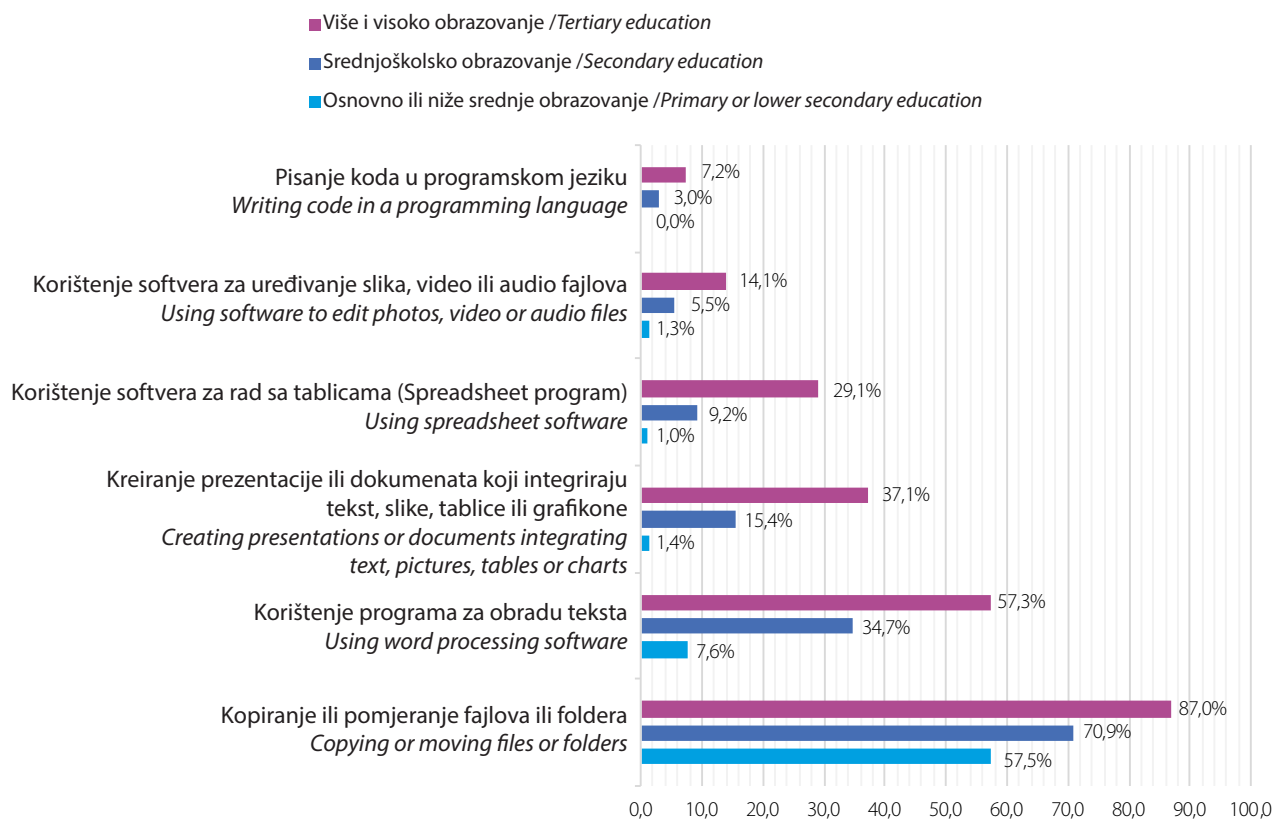
Grafikon 31. Koju ste vrstu robe ili usluga kupili ili naručili putem interneta u posljednjih 12 mjeseci, u privatne svrhe⁵
Graph 31. What types of goods or services did you buy or order over the Internet for private use in the last 12 months⁵



⁵ Podaci se odnose na internet populaciju, odnosno na one pojedince koji koriste internet u zadnjih 12 mjeseci.

⁵ The data refer to the Internet population, or to those individuals who have used the Internet in the last 12 months.

Grafikon 32. Koje od navedenih softverskih aktivnosti ste obavljali u posljednjih 12 mjeseci, prema razini obrazovanja
Graph 32. Which of the following software related activities have you carried out in the last 12 month, by education level



PODUZEĆA
ENTERPRISES

Uzorak

Istraživanje o uporabi informacijsko-komunikacijskih tehnologija u poduzećima provedeno je na reprezentativnom uzorku od 2.601 poduzeća na teritoriju Bosne i Hercegovine. Stopa odgovora je 87,9% (2.286 poduzeća).

Sample

A survey on the use of information and communication technologies in enterprises was conducted on a representative sample of 2.601 enterprises in the territory of Bosnia and Herzegovina. The response rate is 87,9% (2.286 enterprises).

Neto uzorak	10 do 49 zaposlenih	50 do 249 zaposlenih	250 i više zaposlenih	Ukupno
<i>Net sample</i>	<i>10 to 49 employees</i>	<i>50 to 249 employees</i>	<i>250 and more employees</i>	<i>Total</i>
Proizvodnja <i>Manufacture</i>	362	340	106	808
Opskrba električnom energijom, plinom, parom i vodom; gospodarenje otpadnim vodama / <i>Electricity, gas, steam and electricity supply water; waste management</i>	47	50	19	116
Građevinarstvo <i>Construction</i>	113	92	9	214
Trgovina na veliko i malo <i>Wholesale and retail trade</i>	369	173	48	590
Transport i skladištenje <i>Traffic and storage</i>	71	38	10	119
Usluge smještaja i ishrane <i>Accommodation services and food</i>	58	35	2	95
Informiranje i komunikacije <i>Information and communication</i>	83	44	7	134
Poslovanje nekretninama <i>Real estate</i>	27	9	0	36
Stručne, znanstvene i tehničke djelatnosti / <i>Professional, scientific and technical activities</i>	53	28	1	82
Administrativne i pomoćne uslužne djelatnosti / <i>Administrative and auxiliary service activities</i>	36	30	7	73
Popravka i održavanje računala i komunikacijske opreme / <i>Repair and maintenance of computers and communication equipment</i>	13	0	0	13
95.1	5	1	0	
Ukupno Total	1.237	840	209	2.286
Od čega IKT sektor/ICT sector (u: 26.1-26.4+ 26.8+46.5+ 58.2+61+62+63.1+95.1)	69	28	4	101

GLAVNI POKAZATELJI

Računala i računalne mreže u poduzećima

Rezultati istraživanja pokazuju da 99,6% poduzeća na teritoriju Bosne i Hercegovine koristi računalo u svom poslovanju.

Korištenje računala prema veličini poduzeća:

- Mala poduzeća (10-49 zaposlenih), 99,5%;
- Srednja poduzeća (50-249 zaposlenih), 100,0%;
- Velika poduzeća (250 i više zaposlenih), 100,0%.

Procenat korištenja računala u poduzećima, po entitetima:

- Federacija BiH, 99,5%;
- Republika Srpska, 100,0%;
- Distrikt Brčko, 99,3%.

MAIN INDICATORS

Computers and computer networks in enterprises

The results of the survey show that 99.6% of enterprises in the territory of Bosnia and Herzegovina use the computer in their business.

Using your computer according to company size:

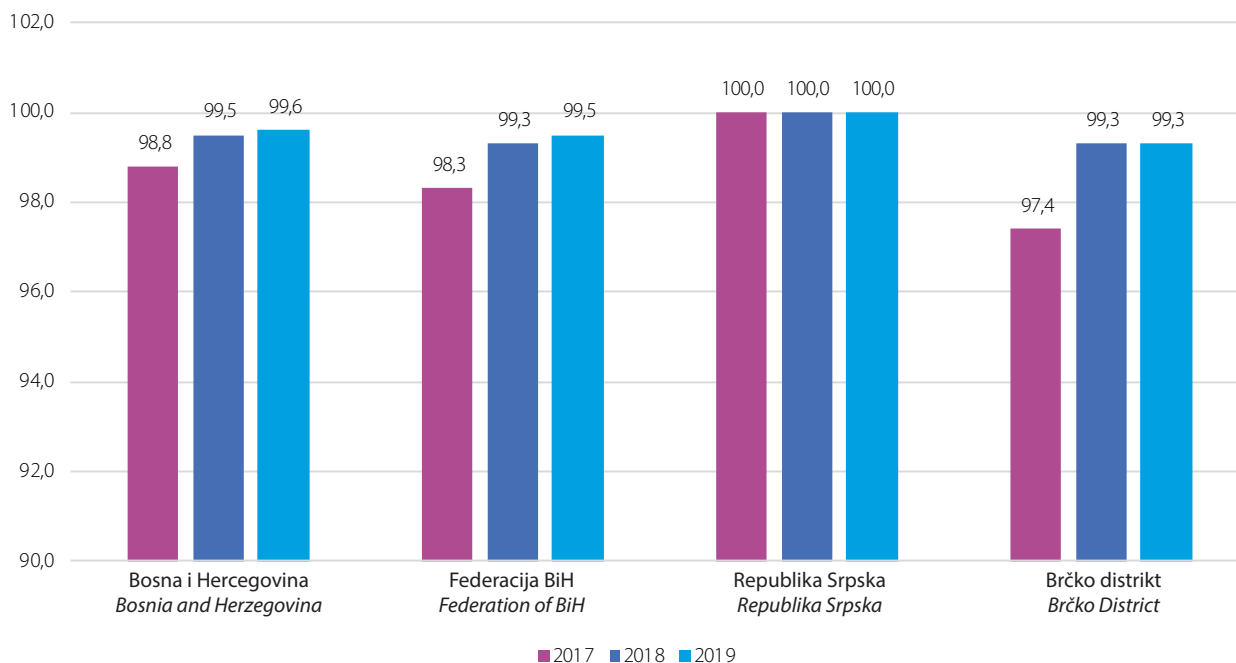
- Small enterprise (10-49 employees), 99.5%
- Medium enterprises (50-249 employees), 100.0%
- Large enterprises (250 and more employees), 100.0%

Percentage of using computers in enterprises by entities:

- Federation of Bosnia and Herzegovina, 99.5%;
- Republika Srpska, 100.0%;
- Brčko District, 99.3%.

Grafikon 1. Postotak korištenja računala u poduzećima, po entitetima

Graph 1. Percentage of using computers in enterprises by entities



Rezultati istraživanja pokazuju da 42,0% zaposlenih koristi računalo u poslovne svrhe.

- 37,9% zaposlenih koristi računalo sa pristupom internetu u poslovne svrhe.

Zaposleni koriste računalo u poslovne svrhe prema veličini poduzeća:

- Mala poduzeća (10-49 zaposlenih) 44,7%;
- Srednja poduzeća (50-249 zaposlenih) 40,4%;
- Velika poduzeća (250 i više zaposlenih) 41,9%.

The results of the survey show that 42.0% of employees use a computer for business purposes.

- 37.9% of employees use a computer with Internet access for business purposes.

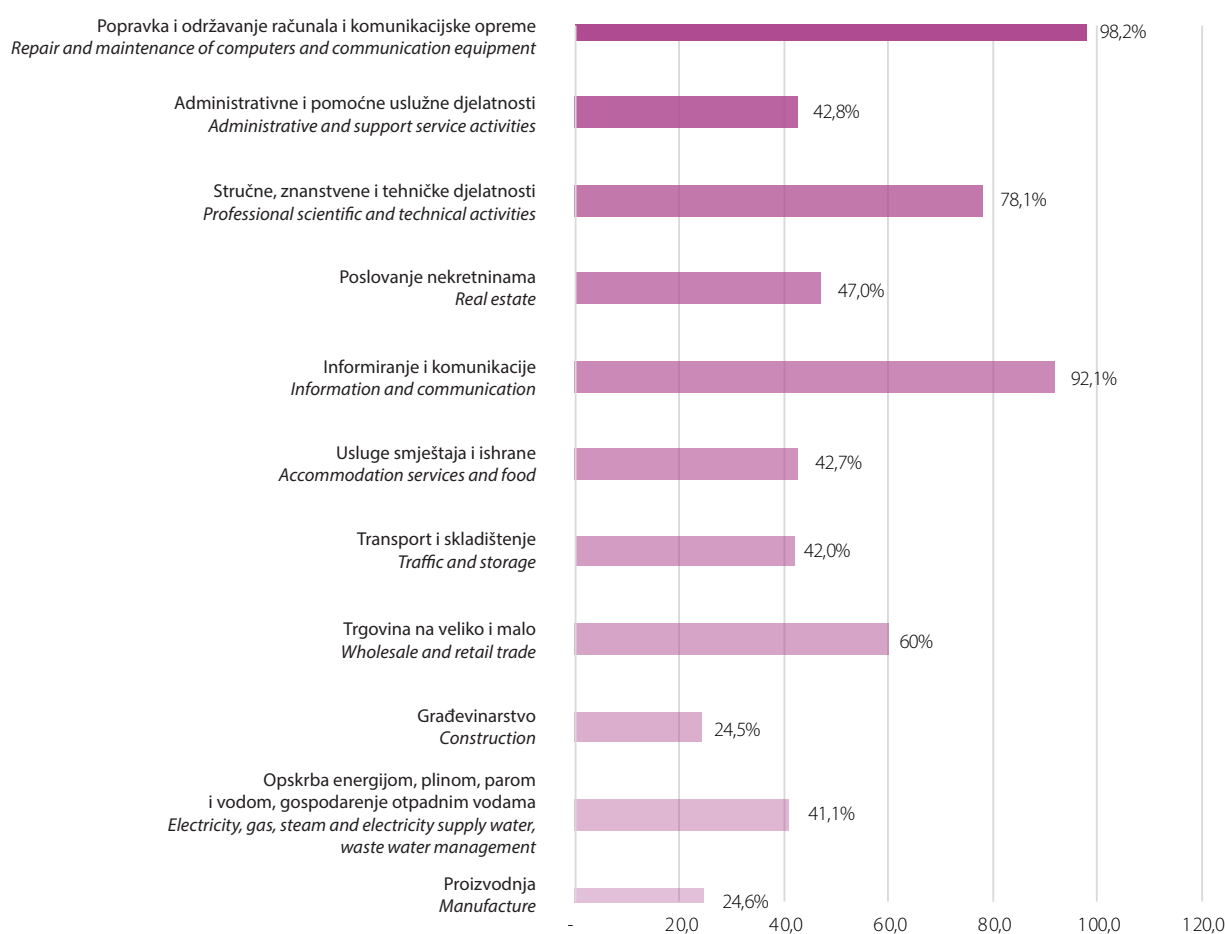
Employees use a computer for business purposes by company size:

- Small enterprise (10-49 employees) 44.7%
- Medium enterprises (50-249 employees) 40.4%
- Large enterprises (250 and more employees) 41.9%.

Rezultati istraživanja pokazuju da zaposleni u sektoru „Popravka i održavanje računala i komunikacijske opreme“ i „Informiranje i komunikacija,“ najviše koriste računalo i to njih više od 98,2%, a zaposleni u sektoru „Proizvodnja“ najmanje koriste računalo u poslovne svrhe, tek nešto više od 24,6% .

The results of the survey show that the employees in the sector “Repair and maintenance of computers and communication equipment” and “Information and communication” mostly use the computer, more than 98.2%, while the employees in the “Manufacturing” sector use the least computer for business purposes, just over 24.6% .

Grafikon 2. Postotak zaposlenih koji koriste računalo (u poslovne svrhe) prema djelatnosti poduzeća
Graph 2. Percentage of employees who use a computer (for business purposes), by enterprise activity



Na temelju istraživanja došlo se do podatka da 17,2% poduzeća zapošljava IKT stručnjake.

According to the survey, 17.2% of enterprises are employed by ICT specialists.

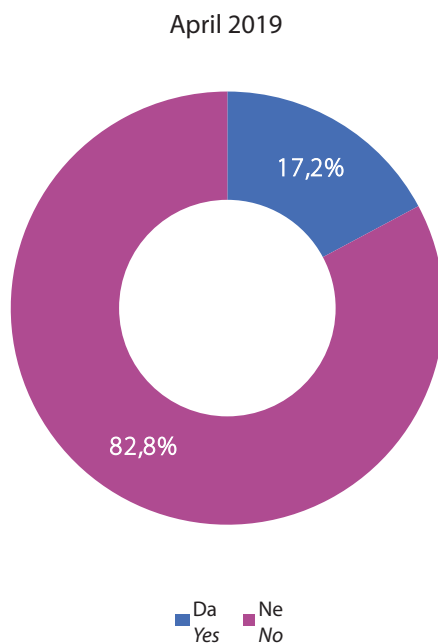
Poduzeća koja zapošljavaju IKT stručnjake, prema veličini poduzeća:

- Mala poduzeća (10-49 zaposlenih), 12,2%;
- Srednja poduzeća (50-249 zaposlenih), 27,8%;
- Velika poduzeća (250 i više zaposlenih), 70,1%.

Enterprises employing ICT specialists, according to enterprises size:

- Small enterprise (10-49 employees), 12.2%
- Medium enterprises (50-249 employees), 27.8%
- Large enterprises (250 and more employees), 70.1%.

Grafikon 3. Da li vaše poduzeće zapošljava IKT stručnjake
Graph 3. Does your enterprise employ ICT specialists



Internet u poduzećima

Rezultati istraživanja o uporabi informacijsko-komunikacijskih tehnologija u poduzećima (IKT-P) u Bosni i Hercegovine, pokazali su sljedeće:

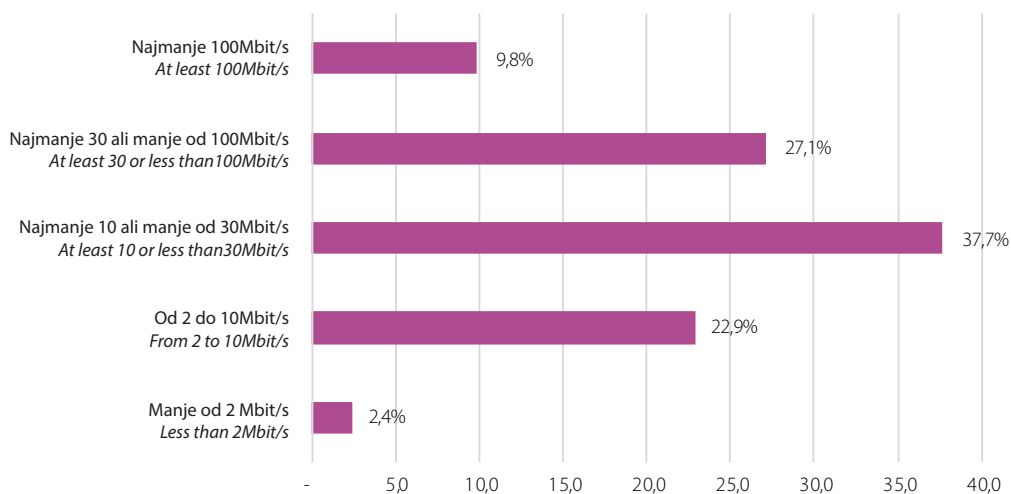
- Da 99,4% poduzeća imaju pristup internetu.
- Od ukupnog broja poduzeća koja imaju pristup internetu, fiksni širokopolasni priključak (npr. ADSL, SDSL, VDSL, kablovske mreže, optičke mreže) posjeduje 99,6% poduzeća;
- mobilnu širokopolasnu (*broadband*) internet konekciju koristi 65,9% poduzeća putem prijenosnih uređaja koristeći mobilnu telefonsku mrežu 3 G.

Internet in enterprises

The results of the survey on the use of information and communication technologies in enterprises (ICT-ENT) in Bosnia and Herzegovina have shown the following:

- 99.4% of enterprises have access to the Internet
- Of the total number of companies that have access to the Internet, fixed broadband (eg ADSL, SDSL, VDSL, cable networks, optical networks) uses 99.6% of enterprises;
- The mobile broadband internet connection uses 65.9% of enterprises via mobile devices using the mobile telephone network 3 G.

Grafikon 4. Koja je maksimalna brzina internet konekcije u vašem poduzeću (definirana ugovorom sa internet provajderom)
Graph 4. What is the maximum speed of the Internet connection in your enterprises (defined by agreement with the Internet provider)

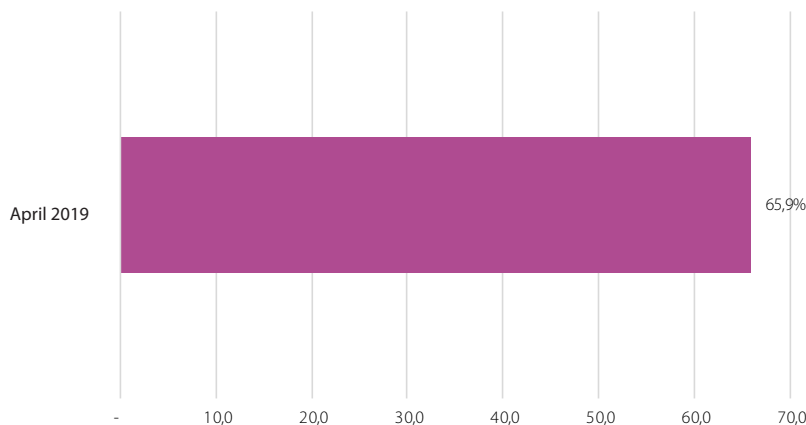


Rezultati istraživanja pokazuju da 65,9% poduzeća obezbjeđuje prijenosne uređaje koji omogućavaju mobilnu internet vezu koristeći mobilne telefonske mreže.

The results of the survey show that 65.9% of enterprises provide portable devices that allow a mobile Internet connection using mobile telephone networks.

Grafikon 5. Da li vaše poduzeće obezbeđuje prijenosne uređaje koji omogućavaju mobilnu internet vezu, koristeći mobilne telefonske mreže za poslovne potrebe

Graph 5. Does your enterprise provide portable devices that allow a mobile connection using mobile telephone networks for business purposes

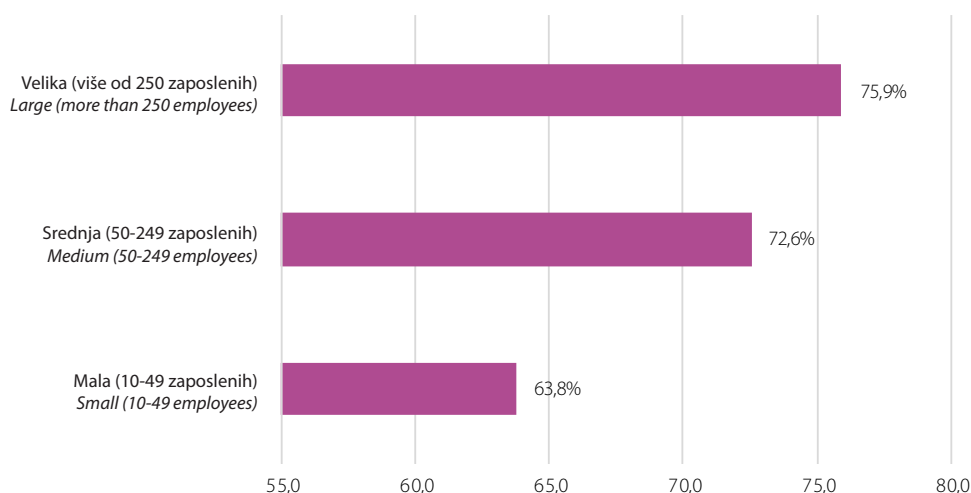


Analiza poduzeća prema veličini pokazuje nam da mobilnu internet konekciju uporabom prijenosnih uređaja najviše koriste velika poduzeća (76,9%).

Enterprise analysis by size shows us that the mobile Internet connection using the mobile devices is mostly used by large enterprises (76.9%).

Grafikon 6. Poduzeća prema veličini, obezbeđuje prenosive uređaje koji omogućavaju mobilnu internet vezu, koristeći mobilne telefonske mreže, za poslovne potrebe

Graph 6. Enterprises by size, provide portable devices that allow a mobile connection to the internet using mobile telephone networks, for business purposes



Website

- Website posjeduje 63,4% poduzeća.

Kada pogledamo strukturu poduzeća prema veličini, dobijamo sljedeće rezultate:

- 88,7% velikih poduzeća posjeduje website;
- 81,2% srednjih poduzeća posjeduje website;
- 57,8% malih poduzeća posjeduje website.

Website

- 63.4% of enterprises had website

When we look at the structure of enterprises by size, we get the following results:

- 88.7% of large enterprises have a website;
- 81.2% of medium-sized enterprises have a website;
- 57,8% % of small enterprises have a website.

Grafikon 7. Postotak poduzeća koja imaju website, prema djelatnosti poduzeća
Graph 7. Percentage of companies that have a website, by enterprise activity



Poduzeća posredstvom web sajta najčešće pružaju :

- opis robe ili usluga, cjenovnik (77,1%);
- sadržaj na web sajtu je prilagođen redovitim posjetiteljima (70,1%);

Istraživanje je pokazalo da 59,6% poduzeća koristi aplikacije za glasovni ili video poziv preko interneta (Skype, WhatsApp, Facetime, Viber) u poslovne svrhe.

Via their website, enterprises most often provide:

- description of goods or services, pricelists (77.1%);
- content on the website is adapted to regular visitors (70.1%);

The survey showed that 59.6% enterprise use voice or video call applications over the internet (e.g. Skype/ Skype for business, WhatsApp/ WhatsApp Business, Facetime, Viber) for business purposes.

Uporaba cloud usluga

Usluge *cloud* servisa plaća putem interneta 11,3% poduzeća, što je povećanje više od 2,9% u odnosu na 2018. godinu.

Cloud servisi podrazumijevaju IKT servise kojima se pristupa putem interneta radi uporabe softvera, prostora za skladištenje podataka i sl.

Servisi imaju sljedeće karakteristike:

- nalaze se na serverima pružatelja usluga (provajdera);
- mogu se upotrebljavati na zahtjev korisnika;
- plaćaju se na temelju načina uporabe, kapaciteta prostora.

Enterprises and social networks

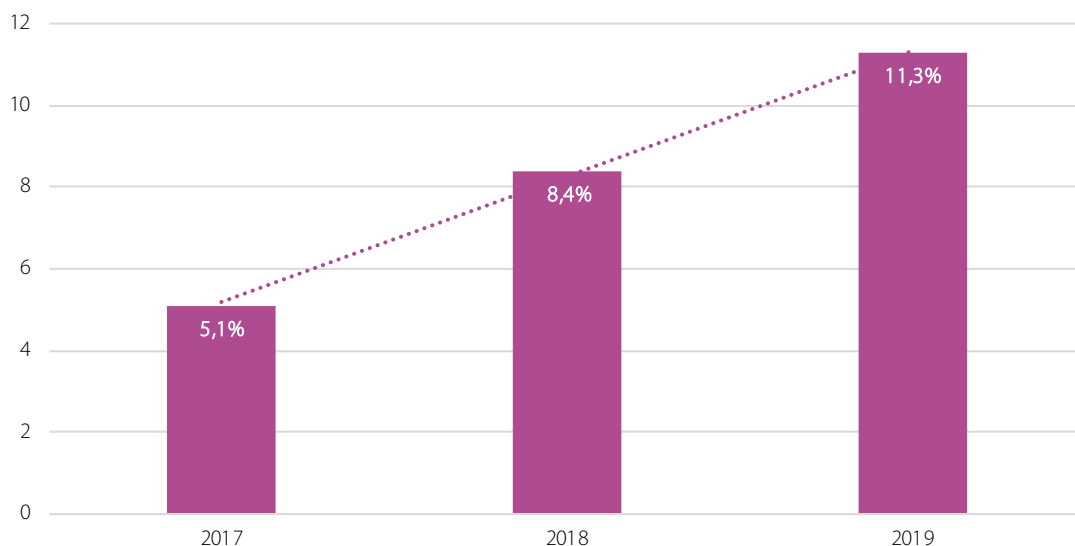
Cloud services are paid by the internet to 11.3% of enterprises, which is an increase of more than 2.9% compared to 2018.

Cloud services include ICT services that are accessed via the Internet for use software, storage space, etc.

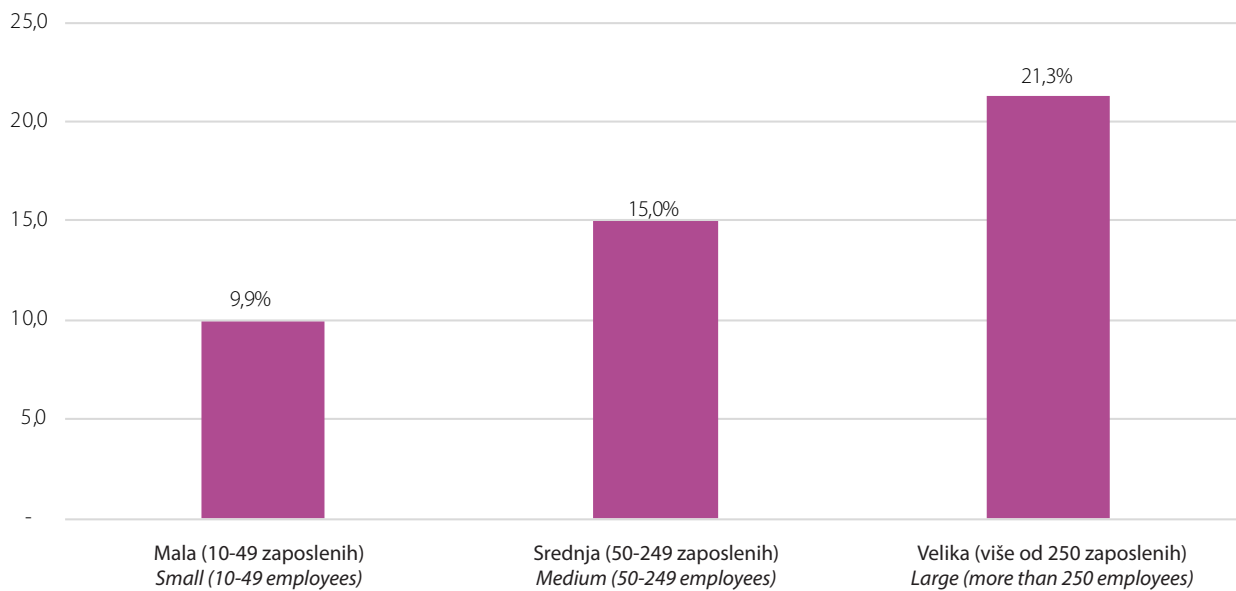
The services have the following characteristics:

- *they are located on the servers of service providers;*
- *they can be used at the request of the user;*
- *they are paid on the basis of usage, space capacity.*

Grafikon 8. Postotak poduzeća koja plaćaju usluge *cloud* servisa putem interneta
Graph 8. The percentage of enterprises that pay cloud services via the Internet



Grafikon 9. Postotak poduzeća koja plaćaju cloud usluge, prema veličini poduzeća 2019.
Graph 9. The percentage of companies that pay the cloud services, by enterprise size 2019



Elektronička trgovina

Tijekom 2018. godine, 21,0% poduzeća u Bosni i Hercegovini primalo je narudžbe za proizvode ili usluge putem interneta.

Kada pogledamo strukturu poduzeća prema veličini, dobijamo sljedeće rezultate:

- 27,6% velikih poduzeća primalo je narudžbe za proizvode ili usluge putem interneta;
- 22,3% srednjih poduzeća primalo je narudžbe za proizvode ili usluge putem interneta;
- 20,4% malih poduzeća primalo je narudžbe za proizvode ili usluge putem interneta;

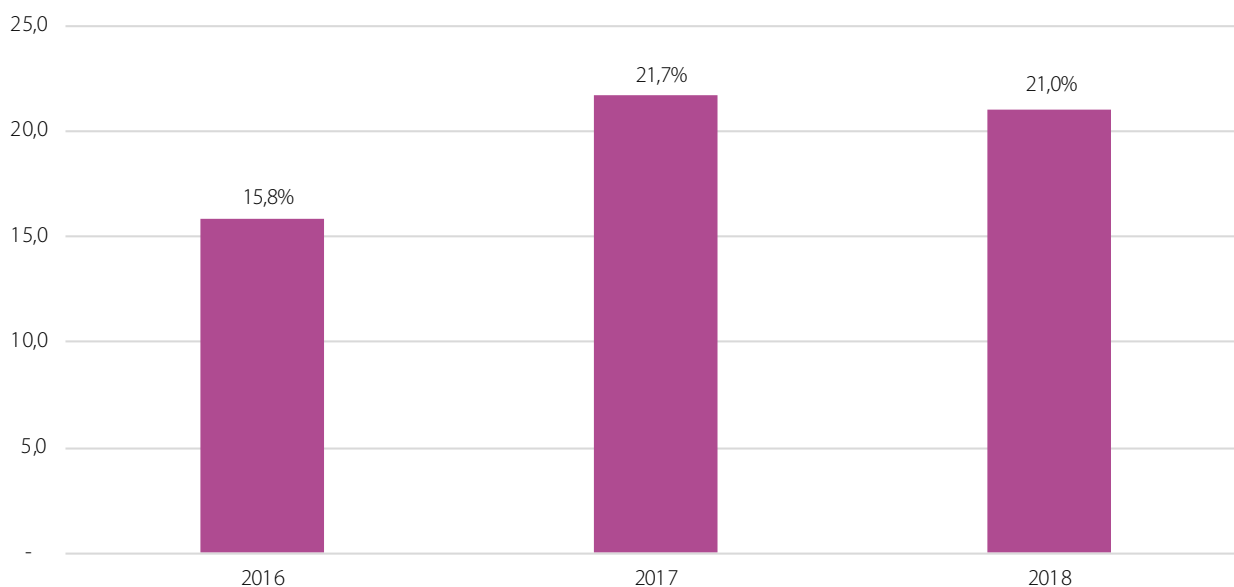
E-Commerce

In 2018. year, 21.0% of enterprises in Bosnia and Herzegovina received orders for products or services via the Internet.

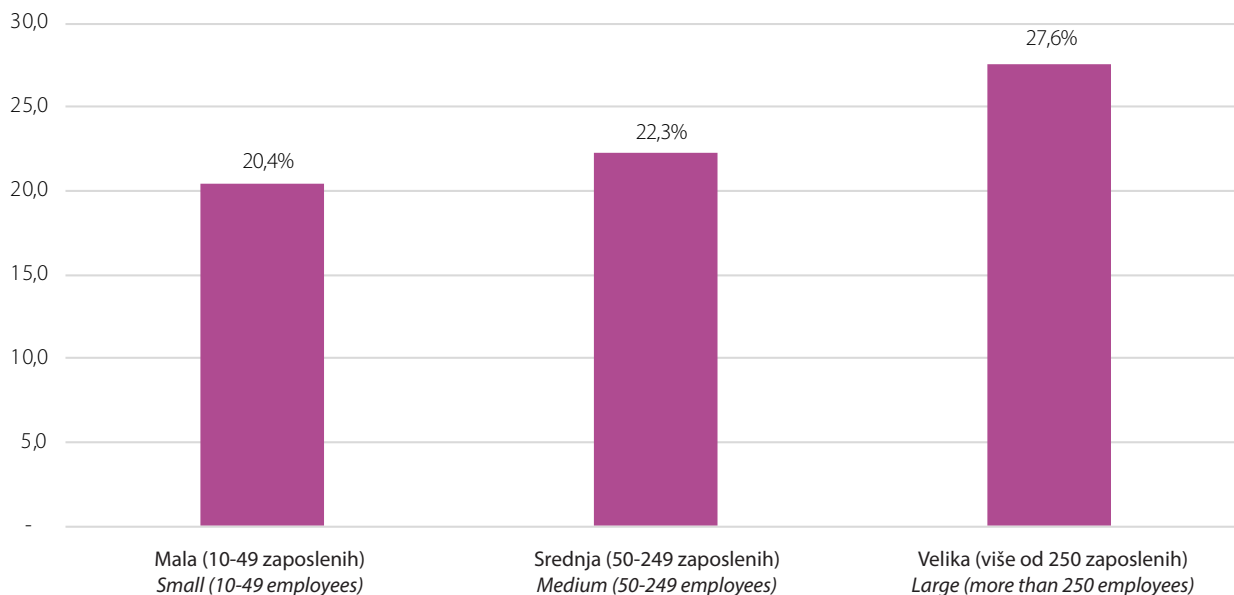
When we look at the structure of enterprises by size, we get the following results:

- *27.6% of large enterprises were receiving orders for products or services via the Internet;*
- *22.3% of medium-sized enterprises were receiving orders for products or services via the Internet;*
- *20.4% of small enterprises were receiving orders for products or services via the Internet;*

Grafikon 10. Postotak poduzeća koja su primala narudžbe putem interneta
Graph 10. Percentage of enterprises that received orders online



Grafikon 11. Postotak poduzeća koja su primala narudžbe putem interneta, prema veličini poduzeća
Graph 11. Percentage of enterprises that received orders online, by size enterprises



Na pitanje „Putem kojih web stranica ili mobilnih aplikacija je poduzeće primalo narudžbe za proizvode ili usluge“ istraživanje je pokazalo da od onih poduzeća koja su primali narudžbe putem interneta:

- 91,6% ih je primalo preko vlastite web stranice poduzeća ili aplikacije
- 14,9% je primalo i putem web stranice *e-commerce* tržišta ili „aplikacija“ koju koristi više poduzeća za trgovinu proizvodima (npr. Booking, eBay, Amazon, Amazon Business, Alibaba, Rakuten, OLX.BA).

To the question “Which of the website or mobile applications the company received orders for products or services,” the survey showed that from those enterprises that received orders via the Internet:

- *91.6% received them through their own corporate website or application*
- *14.9% also received through the e-commerce market website or “application” used by several companies for trade in products? (Eg Booking, eBay, Amazon, Amazon Business, Alibaba, Rakuten, OLX.BA).*

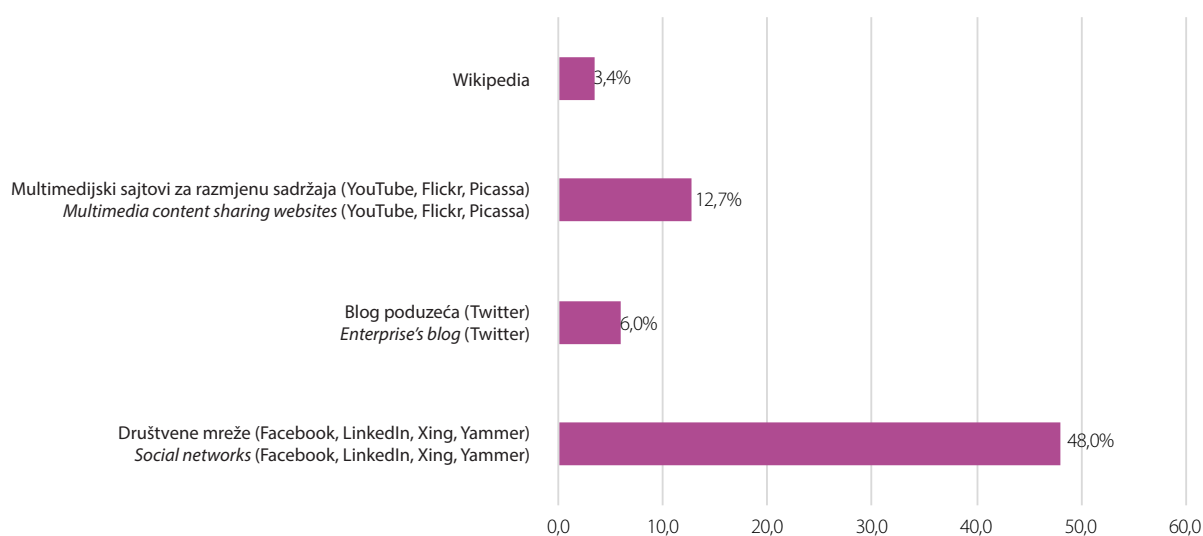
Poduzeća i društvene mreže

Društvene mreže su sve prisutnije u poslovanju poduzeća. U prilog tome govore rezultati istraživanja koji pokazuju da je 48,9% koristilo neku od društvenih mreža za potrebe poslovanja poduzeća.

Enterprises and social media

Social media are growing more available in enterprises for business purposes. This is backed by the results of the survey indicating that 48.9% of enterprises used any of the social media for business use.

Grafikon 12. Da li vaše poduzeće koristi neke od sljedećih društvenih mreža
Graph 12. Did your enterprise use any of the social media for business purposes



IKT RJEČNIK

Definicije

IKT (informacijske i komunikacijske tehnologije) su softveri i hardveri upotrijebljeni za komuniciranje podacima (npr. računalo, faks, internet, fiksni i mobilni telefon).

Broadband su širokopolasne tehnologije ili veze koje omogućavaju brz prijenos podataka. Komunikacijski sustav čiji nositelj (npr. optički kabl) prenosi umnožene podatke u isto vrijeme, a svaki pojedinačni podatak moduliran je na posebnoj frekvenciji.

ADSL (Asymmetric Digital Subscriber Line) Širokopolasna digitalna transmisijska tehnologija koja koristi postojeću telefonsku liniju i dopušta istovremeno slanje podataka i komunikaciju glasom. Veći dio opsega služi za slanje podataka korisniku, a brzine se kreću do 6 Mbps.

Bit (Binary Digit) Najmanja jedinica informacije kojom rukuje računalo. Bit se prikazuje sa 1, ili 0 u binarnom prikazu, ili *true*, odnosno *false* u logičkom prikazu. Skupina od 8 bita čini 1 bajt.

E-government je elektronički kontakt preko interneta sa organima vlasti i javnim uslugama. Ne uključuju ručno kucane e-maile. Suradnja i odnosi sa organima vlasti i javnim uslugama uključuje web stranice koje sadrže građanske obveze (npr. porezne prijave, obveze o kretanju), prava (npr. socijalne beneficije), službeni dokumenti (osobne iskaznice, rodni list), javne obrazovne usluge (javne knjižnice, informacije o upisu u javne škole, fakultete), usluge javnog zdravstva (koje uključuju usluge javnih bolnica).

E-trgovina su transakcije koje se provode preko mreža računala baziranih na internetskom protokolu te preko ostalih računalnih mreža. Primanje narudžbi, dobara i usluga ostvaruje se putem navedenih mreža, ali samo plaćanje i konačna isporuka dobara i usluga mogu biti provedeni *online* ili *offline*. Narudžbe zaprimljene telefonom, faksom ili ručnopisanim elektroničkim porukama ne smatraju se e-trgovinom.

Računala uključuju personalna računala (PC), prijenosna računala (laptop), tablete i ostale prijenosne uređaje (npr. smartphones).

CRM (Customer Relationship Management) Predstavlja proces ili metodologiju koja se koristi da bismo više naučili o potrebama i navikama naših potrošača i da bismo razvili čvršće veze s njima. CRM sadrži više tehnoloških komponenti, ali je CRM u organizacijskom smislu skup procesa koji će pomoći da se prikupe neophodne informacije o potrošačima,

ICT GLOSSARY

Definitions

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

Broadband are technologies or connections that enable rapid transmission of data. A communication system whose carrier (eg, optical cable) transmits multiplied data simultaneously, and each individual data is modulated on a particular frequency.

ADSL (Asymmetric Digital Subscriber Line) Broadband digital transmission technology that uses an existing telephone line and allows simultaneous data transmission and voice communication. Most of the bandwidth is used to send data to the user, and the speed ranges up to 6 Mbps.

Bit (Binary Digit) The smallest piece of information that the computer handles. Bit is displayed with 1, or 0 in the binary view, or *true*, and *false* in the logical view. A group of 8 bits makes 1 byte.

E-government is an electronic contact via the Internet with government authorities and public services. It does not include hand-written e-mails. Cooperation and relations with authorities and public services include websites that contain civil obligations (e.g. tax returns, movement obligations), rights (e.g. social benefits), official documents (ID cards, birth certificates), public educational services (public libraries, information on enrollment in public schools, faculties), public health services (which include public hospital services).

E-commerce are transactions conducted over an internet protocol-based networks and over other computer-mediated networks. Goods and services are ordered via these networks, but the payment and the delivery of the goods or services may be conducted on-line or off-line. Orders received via telephone, facsimile, or manually typed e-mails are not considered e-commerce.

Computers include personal computers (PCs), portable computers (laptops), tablets and other portable devices (e.g., smartphones).

CRM (Customer Relationship Management) It represents a process or methodology used to learn more about the needs and habits of consumers and to develop tighter relationships with them. CRM contains several technological components, but CRM is an organizational set of processes that assists in gathering the necessary information on consumers, sales,

prodaji, marketinškoj efikasnosti, reakcijama potrošača i tržišnim trendovima. CRM pomaže poslovno korištenje tehnologije i ljudskih resursa da bi se stekao uvid u ponašanje i vrijednost potrošača.

Download Elektronski transfer informacija sa udaljenog računala na vaše računalo. Preuzimanje datoteka sa anonimnog FTP-a jeste popularan način pribavljanja besplatnog softvera u javnom vlasništvu.

DSL (Digital Subscriber Line) Vrsta brze internet konekcije korištenjem standardnih telefonskih parica. Može biti i vrsta *broadband* konekcije.

xDSL, ADSL itd. Prijenosi koji se vrše putem internet mreža zasnovanih na protokolu i putem ostalih računalnih mreža. Roba i usluge se naručuju putem tih mreža, ali isplata i konačno dostavljanje robe ili usluge može da se provodi na mreži ili izvan mreže (*offline*). Narudžbe koje se zaprimaju putem telefona, faksa ili mejla ne ulaze u kategoriju elektroničke trgovine.

E-mail Elektronski prijenos poruke, uključujući tekst i privitke, s jednog na drugo računalo koji su locirani unutar ili izvan organizacije. To uključuje elektronički mail putem interneta ili drugih računalnih mreža.

Elektronička trgovina, E-Commerce (Electronic Commerce, EC) je kupovina ili prodaja dobara ili usluga putem interneta, naročito putem servisa World Wide Web. U praksi se ovaj termin često koristi umjesto novijeg termina *e-business*, što znači poslovanje putem interneta.

ERP (Enterprise Resource Planning) je, najkraće rečeno, softverski sustav koji prati sve aspekte poslovanja jedne kompanije. Implementirani ERP sistem je u mogućnosti integrirati poslovanje različitih dijelova kompanije (kao npr. računovodstvo, prodaja, proizvodnja, itd.) u jednu jedinstvenu cjelinu. Tako se dobija sustav preko kojeg je moguće, s jedne strane, upravljati svim ljudskim i materijalnim resursima, a s druge - planirati, razvijati i pratiti poslovne procese i procedure.

marketing efficiency, consumer reactions and market trends. CRM helps business use technology and human resources to gain insight into the behavior and value of consumers.

Download *Electronic transfer of information from a remote computer to your computer. Downloading anonymous FTP files is a popular way to get free public domain software.*

DSL (Digital Subscriber Line) *A type of fast internet connection using standard telephone pairs. It can also be a type of broadband connection.*

xDSL, ADSL etc. *Transfers made via Internet networks based on the protocol and through other computer networks. Goods and services are ordered through these networks, but payment and final delivery of goods or services can be carried out online or off-line. Orders received by phone, fax or e-mail are not considered e-commerce.*

E-mail *Electronic message transmission, including text and attachments, from one computer to another located inside or outside the organization. This includes an electronic mail via the Internet or other computer networks.*

Electronic commerce *E-commerce (Electronic Commerce EC electronic store) is purchasing or selling of goods or services via the Internet, in particular via the World Wide Web service. In practice, this term is often used instead of a recent term e-business, which means doing business online*

ERP (Enterprise Resource Planning) *is, in short, a software system that tracks all aspects of enterprises business. The implemented ERP system is able to integrate the business of various parts of the enterprise (such as accounting, sales, production, etc.) into one single entity. This creates a system through which it is possible, on the one hand, to manage all human and material resources, and on the other, to plan, develop and monitor business processes and procedures.*

