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RESEARCH ARTICLE

THE INFLUENCE OF SOCIODEMOGRAPHIC CHARACTERISTICS ON ONLINE CONSUMER BEHAVIOR IN BOSNIA AND HERZEGOVINA

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ABSTRACT

The reserch investigates the significant influence of sociodemographic characteristics such as location, gender, age groups, nationality, employment status and average monthly income on online consumer behavior such as frequency of online shopping and frequency of using mobile or internet banking within the Bosnia and Herzegovina digital ecosystem. The findings demonstrate that sociodemographic characteristics significantly influence online consumer behavior, confirming that diverse demographics groups are significantly shaping digital commerce development in Bosnia and Herzegovina. The results indicate that sociodemographic indicators show that online shopping is widely adopted, while internet banking remains underutilized, highlighting differences in trust and perceived security across digital services. Regression analysis confirms that sociodemographic characteristics strongly predict online consumer behavior. These insights underline the importance of strengthening sociodemographic characteristics as a priority to all stakeholders including governments, institutions, academia´s, NGOs. Enhancing sociodemographic characteristics across different social and economic groups will not only foster digital inclusion but also improve competitiveness and prepare Bosnia and Herzegovina's citizens for deeper participation in the global digital economy. The research sample consisted of 1547 citizens (n = 1547) from Bosnia and Herzegovina, selected using the snowball sampling method. The basic motive for the realization of this research is the fact that there is no relevant research in Bosnia and Herzegovina that focuses on the impact of sociodemographic characteristics on online consumer behavior.

KEYWORDS
sociodemographic characteristics, online consumer behavior

1. INTRODUCTION

In the last decade, global rapid growth on digital technologies has been profoundly shaped consumer behavior. With introduction of e-commerce and possibilty to purchase variaty of products or to use digital services created tremendous new opportunities for both consumers and businesses. The swift expansion of the digital ecosystem has fundamentally changed the ways consumers engage the global market. This transformation is particularly notable in online consumer behavior, where purchasing preferences, habits and engagement are increasingly influenced by digital platforms. In the context of the digital economy, understanding the role of sociodemographic characteristics is crucial, as these fundamental attributes of individuals and populations greatly influence their likelihood and type involvement in the digital economy. When analyzing developing digital markets such as Bosnia and Herzegovina, the correlation between sociodemographic and online consumer behavior presents a complex and compelling review, offering insights into both local digital market dynamics and global digital trends.

Despite noticeable progress, it is evident that challenges remain in ensuring that the digital economy provides benefits to all sociodemographic groups. Tackling the digital divide effects in Bosnia and Herzegovina requires addressing the impact of sociodemographic inequalities on online consumer behavior. Similarly, inclusive business strategies need to consider financial limitations and cultural differences to facilitate border acceptance and sustainable use of e-commerce. Such an effort requires involvement and action from all stakeholders: governments, regulators, educators, industry leaders, and NGO sector to ensure that technological progress leads to digital inclusiveness and opportunity for all.

In conclusion, looking at the overall impact of the digital divide on the digital economy, the influence of sociodemographic characteristics on online consumer behavior in Bosnia and Herzegovina is the most complex phenomenon. These fundamental factors determine who engages with digital platforms but also how often and with what preferences which greatly impacts individual experiences and overall market dynamics. To truly build, strong, sustainable and inclusive digital economy, it is crucial to comprehensively understand the influence of sociodemographic characteristics.

As Bosnia and Herzegovina continues its journey toward digital transformation, a strategic approach on sociodemographic elements will be an absolutely key factor to ensure that the exciting potential of digital innovation benefits everyone, fairly and effectively. This introduction, therefore, lays the groundwork for a thorough examination of

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sociodemographic characteristics, seeking to answers on how our basic identities, geographical locations, and available resources collectively determin our path within the digital marketplace.

After the introductory considerations and definition of the research problem, the research paper follows with the literature review, empirical research methodology, and research results obtained by processing and analyzing primary data using appropriate statistical methods. At the end of the paper, concluding considerations and recommendations for future research are presented.

2. Literature Review

The digital economy in modern society is a key factor in the transformation of society and the market, which is based on the very rapid development of digital technologies. Like all previous industrial revolutions, the digital economy has created numerous benefits and opportunities, but it has also created even deeper differences in all socioeconomic categories such as gender, age category, nationality, education, employment, income level and many others. Socioeconomic factors represent the most complex segment of the digital divide, which in its simplest form can be explained by dividing it into "those who have and those who do not" with access to ICT, with an emphasis on the Internet. In the context of observing the digital divide from the perspective of the population of individuals, the unequal and uneven distribution of digital access limits individual opportunities for education, employment and social inclusion. In the context of the impact of socioeconomic status on the digital economy, individuals with a higher level of income and education have a significant advantage and the chance to exploit all the potential of the digital economy. On the other hand, people with a lower socioeconomic status have a significantly less favorable position in all segments of work and activity. Therefore, understanding the interrelationship of socioeconomic factors and the digital economy is key to shaping policies that will enable more equal access to digital resources and encourage transformation based on the principles of equality and social cohesion.

All research that analyzes the impact of socioeconomic status on the digital economy agrees on several conclusions: individuals living in poor communities have low awareness of the benefits of using ICT, high unemployment means that few individuals have the opportunity to access the Internet, and that low income levels mean that individuals do not have the resources to purchase a computer or mobile phone. A key focus for addressing digital social inequality is to find financial resources that will ensure the inclusion of those segments of society that, for whatever reason, cannot participate in digitalization.The ubiquity of digital technologies profoundly affects how we find, process, and evaluate information in contemporary societies. Successful navigation through the vast streams of the Internet, in addition to mastery of digital devices, is essential for raising integrated and informed citizens (Passaretta and Hernández, 2023). Furthermore, at the level of research and education, cooperation and exchange of knowledge between universities is needed. Finally, it is important to innovate in technologies within and for people in low-resource environments and to develop transdisciplinary research methodologies (Werthner et al., 2024).

According to recent OECD research, there is significant inequality in internet use across socio-economic and socio-demographic groups. For example, young people aged 16 to 24 are 15% more likely to use the internet than older people aged 55 to 74. People with a high level of education are 15% more likely to use the internet than those with a low level of education. Gender differences are less pronounced, but women are more likely to use the internet in a third of countries for which data is available. There is also economic inequality, with people in the fifth quintile of the income distribution being 12% more likely to use the internet than those in the first quintile. The data is further analysed using odds ratios, where ratios above one indicate higher adoption of digital technologies among younger and more educated people, while ratios below one indicate slower adoption among older and less educated groups. These differences show that, although digital technology is becoming ubiquitous, its impact and accessibility are not evenly distributed, which requires targeted policies to reduce the digital divide among different population groups (OECD, 2024).

According to recent research, a higher share of the rural population shows a negative correlation with all components of the digital economy, while urban regions show significantly better results (Vlasov et al., 2024). The research showed that the results are in line with previous research on various aspects of the digital economy such as the provision of digital healthcare, broadband access and digital education (Lembani et al., 2019). The aforementioned digital divide has serious consequences such as poverty and inequality for the population, and in the business sector a direct impact on the development of entrepreneurship and business performance. Digital platforms and e-services have significant potential to enable and improve access to vital services such as healthcare, education and financial services, which greatly contribute to a better quality of life and economic opportunities for poor people (Santoro et al., 2022). Some authors who have investigated key factors such as the quality of broadband internet and digital infrastructure in rural areas have found that there has been improvement, but with the conclusion that there is still a significant lag compared to urban areas (Morris et al., 2022). From the perspective of the impact of population growth and birth rates, research has proven a negative correlation between most components of the digital economy and high natural population growth and birth rates, which supports the conclusions of previous studies showing that larger families are less involved in the digital economy (Boeing, 2020).

According to recent ITU report, globally, 70% of men are using the Internet, compared with 65% of women. This means there are 189 million more men than women using the Internet in 2024. This difference has been decreasing since 2021, when it stood at 277 million. Gender parity is deemed to be achieved when the gender parity score, defined as the female percentage divided by the male percentage, is between 0.98 and 1.02. The improvement is also reflected at the level of regions and country groups, with a notable exception: in the group of LDCs, gender parity has actually decreased, from 0.74 in 2019 to 0.70 in 2024. In the SIDS group, the gender parity score also decreased slightly: from a figure slightly above one, indicating that more women than men were using the Internet, it dropped to exactly one in 2024, indicating perfect gender parity. The SIDS are also a notable, positive exception to the strong correlation between gender parity and overall Internet use: they have achieved gender parity even though slightly less than two-thirds of the population use the Internet. Among the ITU regions, gender parity has been achieved in the Americas, Europe and the CIS region. In the Asia-Pacific region, progress is fast, as the score improved from 0.89 in 2019 to 0.95 in 2024. In the Arab States, on the other hand, the gender parity score has not improved, remaining at 0.86 during the same period. Finally, there is progress in Africa, but the region is still far behind the other regions (ITU, 2024)

From digital economy standpoint, online consumer behaviour became very interesting topic with high increase of scholarly attention, especially as e-commerce continues to grow on global perspective. For academics and practitioners, understanding how sociodemographic characteristics influence consumers' online buying decisions is crucial, regardless of what are the focus factors such as nationality, gender, age, income, education, and cultural background.

Recent research emphasizes that significantly shape online shopping preferences, trust, and frequency. Based on published reserches, sociodemographics factors such as age, gender, occupation, education and income are among most importand factors that shapes online consumer behavior. According to the research findings, the impact of consumer awareness and experience has increased in affecting online consumer buying behavior (Gu et al., 2021). In regards to demographic factors, some authors study findings revealed that online shopping among selected respondents is strongly influenced by the demographic profile of the purchaser which included factors like age, gender, education, occupation, and income. And also, the same result was obtained regarding perceived risk, and it has a significant effect on online consumer purchases (Jindal, et al., 2019).

According to Federal Reserve Financial Services reaserch, consumers made an equal number of cash and debit card purchases for payments under $25, marking the first time that cash was not the most-used instrument for smaller-value payments. Consumers living in households with income of less than $50,000 a year used cash for 28% of payments, compared to 13% for consumers in households with annual income of more than $50,000. Consumers younger than 55 used cash for 12% of all payments, significantly less than those 55 and older, who used cash for 22% of payments. Research proofs strong correlation between household income and payment method preference, with higher income households increasingly favoring digital payment methods. Reserch has proven that age significantly influences digital banking adoption patterns (The Federal Reserve Bank, 2024).

Digital identity plays a key role in facilitating access to digital services, especially in rural and remote areas. The lack of an official identity makes it difficult to access online services, such as financial services, markets and formal employment. An estimated 850 million people worldwide do not have an identity card, while an additional 220 million people do not have a digital record of their identity. One of the most important aspects in overcoming the digital divide is financial inclusion through digital technologies, especially in rural areas. In many low and middle income countries, mobile banking and digital financial services are providing access to formal finance for people who previously did not have bank accounts. This trend has been particularly accelerated during the global pandemic, when digital services have become essential for the economic survival of many rural communities. However, the lack of infrastructure and digital literacy in rural areas remains an obstacle to the full inclusion of these communities in the digital economy (Demirgüç-Kunt et al., 2022).

The digital economy represents unlimited potential for economic growth, innovation and improved quality of life, but its full realization depends on the ability of societies to bridge the digital divide. Socioeconomic differences represent key obstacles that prevent individuals and groups from participating equally in digital inclusion. Available literature and papers unequivocally show that certain demographic groups, such as the elderly, people with lower levels of education and residents of rural areas, have less chance of successfully engaging in digital activities, which further increases not only the digital divide but also social inequality. A globally inclusive digital economy means involving all stakeholders in order to create targeted public policies that will provide widely available and high-quality digital infrastructure, systematically improve digital literacy, and enable equal participation of all social strata. Only through such measures is it possible to reduce the digital divide, ensure sustainable economic growth and contribute to building a more just and inclusive digital society.

3. Research Methodology

As part of the primary research (field research), data were collected using the survey method, using a survey questionnaire as a technical means of data collection. The collection of primary data for this research is part of a wider research Primary data was collected using the snowball method, which was partly done electronically using Google Forms a platform for online surveys, and partly by personally surveying respondents. In principle, the main advantage of the snowball or multiple sample is the economic efficiency of the procedure, given that it is formed in such a way that the researcher, on a case-by-case basis, identifies the initial persons who have the studied trait, and then asks them to identify other respondents who also have the same. In other words, based on the information obtained from the initial respondents, the subsequent ones are identified, and so on, hence the metaphorical name of the "snowball" sample.

In the process of data collection, the answers of 1547 respondents were collected, based on which empirical research will be carried out for the needs of this part of the work. The survey questionnaire that was used in the research was designed in several parts, so, in addition to the categorical socio-demographic characteristics of the respondents in terms of territorial distribution, nationality, gender, age groups, employment status and average monthly income, they are through segmented parts of the same, collected data on frequency of online shopping and frequency of using mobile or internet banking. The survey questionnaire, except for the question about territorial affiliation, is structured in the form of closed-ended questions, whereby the respondents had the opportunity to evaluate their degree of agreement with certain statements through the offered answer form in the form of a five-point Likert response scale.

The methods that will be used in the presented scientific research work to investigate and present the results of scientific research are inductive and deductive, methods of analysis and synthesis, comparative methods, and statistical methods. During the research, the analysis of relevant scientific research and studies in the form of books, textbooks, magazines, official publications, websites, as well as other relevant literature will be carried out. The inductive method will be applied in the reverse direction to derive general propositions from individual facts. The deductive method will be used to derive appropriate concrete assumptions and conclusions from general statements. These two methods will be used to explain established and discover new knowledge and new laws, as well as to prove established theses and test hypotheses and predict future events.

The method of analysis will enable the explanation of the problem and the subject of research by breaking it down into simpler parts and researching each part separately concerning other parts, which will enable the observation, discovery, and study of the scientific truth about mutual relationships. The synthesis method will be used to combine the obtained research results into a single unit in which these results are mutually related. The comparative method will be used to compare the same or related facts, phenomena, processes, and relationships, i.e. it will help to establish their similarities in behavior and intensity, as well as the differences between them. Following the usual research standards in the social sciences, the data obtained from the questionnaire will be processed using SPSS modern software package for statistical analysis. Bearing in mind that the research hypotheses were formulated in such a way as to test the influence (causality) of one variable on another, and not the connection (connection) between the defined variables, regression analysis was used in the paper. The method of description will be used to describe facts and their empirical confirmation but without scientific interpretation and explanation.

3.1 Research variables

The variables observed in the context of the empirical research are:

The independent variable relates to the sociodemographic characteristics. Sociodemographic characteristics are measurable attributes of individuals or groups that include factors such as age, gender, education, income, employment status, ethnicity, and geographic location, which together help describe the social and demographic profile of a population or target group.

Indicators for measuring independent variables represent the sociodemographic characteristics of, as follows:

- Entity
- Location
- Gender
- Age groups
- Nationality/Ethnicity
- Employment status
- Average monthly income

Respondents rated their level of knowledge for each of these indicators on a scale from 1 to 5, where the rating 1 indicates insufficient, 2 - sufficient, 3 - good, 4 - very good and 5 - excellent level of knowledge of the subject category, so the value of the variable represents the sum of respondents' responses to these six indicators.

The dependent variable is related to Use of Internet. Use of internet refers to the extent, frequency, and purpose for which individuals, businesses, and institutions access and utilize online resources and digital services.

Indicators for measuring dependent variables Use of Internet are as follows:

- Frequency of online shopping
- Frequency of using mobile or internet banking in the last year.

Given the response modalities used to measure the aforementioned indicators, the distribution of respondents' responses was used to determine the relationship between the sociodemographic characteristics of respondents and internet use, bearing in mind that the application of the chi-square test of independence is conditioned by fulfilling the assumption that the lowest expected frequency in all cells should be 5 or more, which was not satisfied in a large part of the combinations of sociodemographic characteristics and internet use indicators.

The planned research will be based on the application of scientific methods of secondary and primary research.

4. Results And Discussion

The distribution of respondents by entity shows a majority of 62.96% from the Federation, followed by 32.39% from Republika Srpska and 4.65% from Brčko District. This sampling reflects the population distribution and regional representation within the research. The dominance of Federation respondents indicates potential regional influences on digital behavior. This demographic spread provides a foundational context for analyzing variations in digital adoption and online shopping frequency across these entities. The near absence of respondents from Brčko District points to a need for more targeted data collection or consideration of this group's role in broader digital studies.

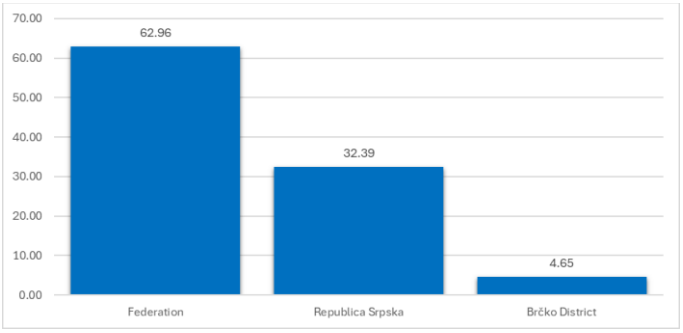

Figure 1 : Respondent demographics based on entity

Source: Authors' research

Urban respondents constitute 78.98% of the sample, significantly outnumbering rural participants at 21.02%. This substantial urban majority underscores urban centrality in digital engagement, likely due to better infrastructure, higher income levels, and greater digital literacy. Rural representation, while smaller, is significant enough to capture distinct behaviors possibly shaped by limited access and economic constraints. The dominant urban respondent base suggests urban data will heavily influence findings on digital usage. The rural segment offers critical insights into disparities affecting the digital divide and the inclusivity of online services.

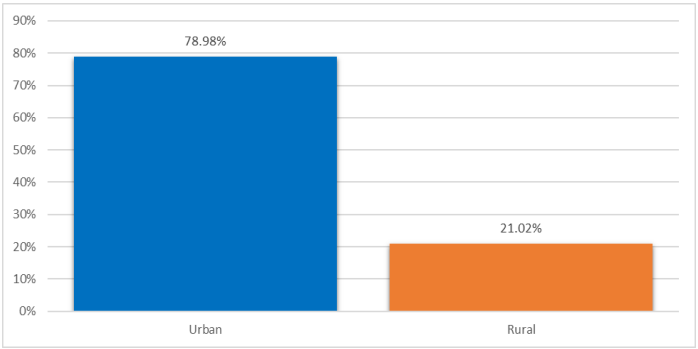

Figure 2 : Respondent demographics based on Urban vs. Rural

Source: Authors' research

The gender split among respondents is relatively balanced, with males at 51.09% and females at 48.91%. This near parity enables equitable analysis of gender-based digital behaviors and preferences. The balanced gender representation supports rigor in understanding any discrepancies or convergences in technology adoption and usage patterns across genders. Such distribution helps negate gender bias in the interpretation of online shopping frequency. It also permits examination of gender dynamics in digital access and service usage within the studied population.

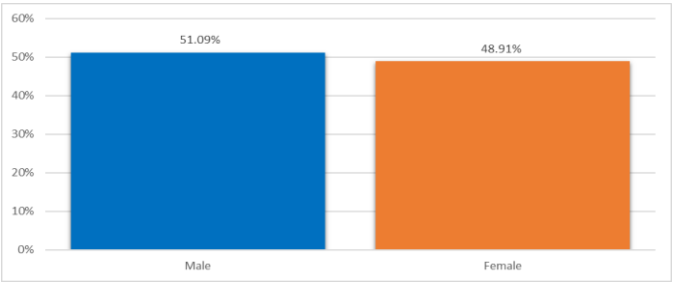

Figure 3 : Respondent demographics based on gender

Source: Authors' research

Respondent ages are well distributed, with the 30–44 group being the largest at 29.15%, followed by 20–29 at 19.52%, and 45–54 at 20.36%. Younger groups (15–19) account for 11.76%, while older cohorts such as 55–64 and 64–74 represent smaller proportions at 10.21% and 4.65%, respectively. The lowest share is held by those over 74 years at 4.33%. This age distribution indicates a predominance of middle-aged participants, likely reflecting the economically active population segment. The presence of younger and older groups ensures a broad generational analysis of digital habits. It highlights potential age-related gaps in technology adoption and online shopping behaviors.

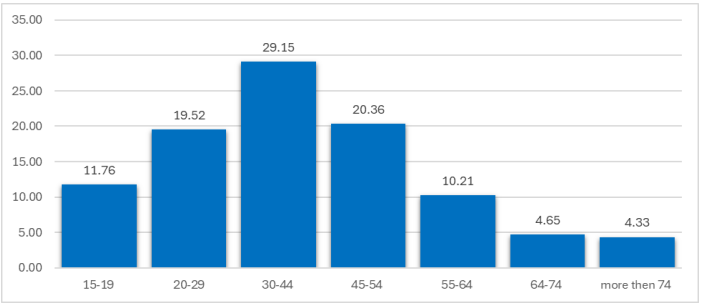

Figure 4 : Distribution of respondant age

Source: Author

The largest nationality groups are Muslim/Bosniaks (44.02%), Serbs (31.25%), and Croats (16.16%). Other nationalities, including Jewish (0.84%), Roma (0.58%), atheists (4.07%), and others (2.97%), make up smaller proportions. The predominance of three main ethnic groups mirrors the country's demographic composition and informs cultural considerations in digital behaviors. Variations among smaller groups might point to differential access or cultural inclinations toward technology use. This distribution lays groundwork for investigating ethnic or cultural impacts on digital economy participation and technology acceptance.

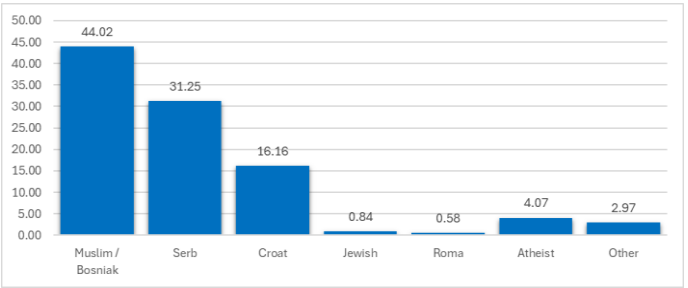

Figure 5 : Distribution of respondants nationality

Source: Author

Almost half of the respondents (48.93%) are employed, followed by students (19.65%), pupils (13.32%), and unemployed individuals (7.50%). Lesser proportions include freelancers (2.07%), pensioners (0.71%), and others such as war invalids or persons with special needs (2.97%). The employment profile reflects a workforce and student-heavy sample relevant for analyzing digital engagement dynamics driven by occupational factors. High student representation allows exploration of youthful digital trends. The smaller groups' data provide insights into barriers faced by less economically active populations in accessing digital

services.

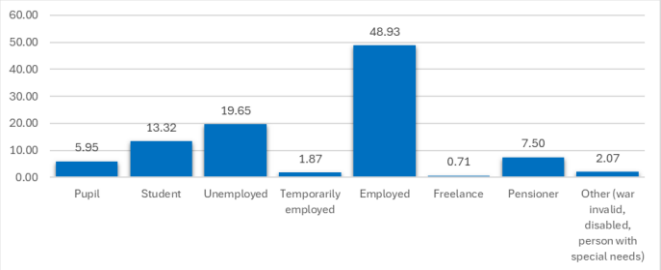

Figure 6 : Distribution of respondants employment status

Source: Author

Income levels show a diverse spread, with 24.43% reporting no income and 13.06% earning less than 500 KM monthly. The largest segment earning between 500 and 1,000 KM accounts for 15.06%, with subsequent income groups tapering off progressively up to those earning over 3,000 KM at 1.49%. This income variation offers a lens to examine economic constraints impacting digital service use and online shopping ability. The notable share of no-income respondents suggests socioeconomic challenges affecting digital engagement.

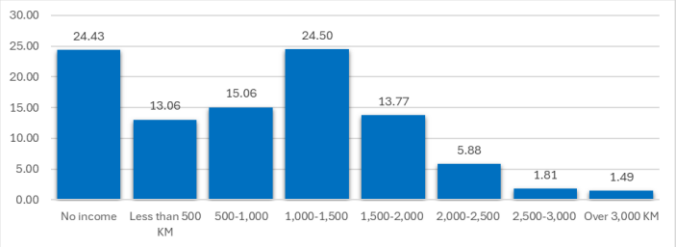

Figure 7 : Distribution of responses on respondants income

Source: Author

Regarding online shopping, 29.93% of respondents reported no purchases over the last year, while 31.16% shopped between 1–10 times. Smaller percentages engaged more frequently, with 14.93% shopping 10–20 times, and only 1.16% exceeding 100 purchases annually. Use of mobile or internet banking shows 44.21% non-users, 9.95% with 1–10 transactions, and a gradual decrease in higher-frequency users. These patterns highlight a moderate adoption of online commerce and digital financial services, with a significant portion of the population either inactive or low-frequency users. Understanding these usage levels is key for targeting interventions to increase digital service engagement and financial inclusion.

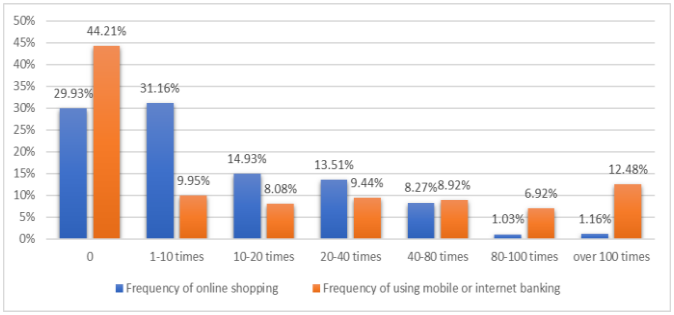

Figure 8 : Distribution of responses on frequency of online shoping and internet banking

Source: Author

In light of this limitation, and based on the chi-square test results, contingency tables of respondents' distributions were constructed for the internet usage indicators, as shown in Tables 1 and 2.

Table 1 : Distribution of respondents for the indicator of frequency of online shopping

	Categories	How many times have you shopped on the Internet in the last year?														Total
		0		1-10		10-20		20-40		40-80		80-100		>100		
		[1]	[%]	[1]	[%]	[1]	[%]	[1]	[%]	[1]	[%]	[1]	[%]	[1]	[%]	
Gen	Male	258	32,66	224	28,35	118	14,94	117	14,81	52	6,58	8	1,01	13	1,65	790
d	Female	205	27,08	258	34,08	113	14,93	92	12,15	76	10,04	8	1,06	5	0,66	757
Loc	Urban	326	26,90	386	31,85	192	15,84	172	14,19	111	9,16	13	1,07	12	0,99	1212
2	Rural	137	40,90	96	28,66	39	11,64	37	11,04	17	5,07	3	0,90	6	1,79	335
Nationalaty	Muslim	194	28,49	235	34,51	94	13,80	84	12,33	60	8,81	6	0,88	8	1,17	681
	Serb	141	29,07	159	32,78	82	16,91	53	10,93	40	8,25	6	1,24	4	0,82	485
	Croat	80	32,00	55	22,00	34	13,60	49	19,60	24	9,60	2	0,80	6	2,40	250
	Jew	7	53,85	1	7,69	0	0,00	4	30,77	0	0,00	1	7,69	0	0,00	13
	Roma	1	11,11	3	33,33	3	33,33	2	22,22	0	0,00	0	0,00	0	0,00	9
	Atheist	29	46,03	9	14,29	8	12,70	14	22,22	2	3,17	1	1,59	0	0,00	63
	Other	11	23,91	20	43,48	10	21,74	3	6,52	2	4,35	0	0,00	0	0,00	46
Age	15-19	20	10,99	94	51,65	37	20,33	25	13,74	5	2,75	0	0,00	1	0,55	182
	20-29	51	16,89	120	39,74	54	17,88	44	14,57	28	9,27	3	0,99	2	0,66	302
	30-44	90	19,96	156	34,59	71	15,74	67	14,86	51	11,31	10	2,22	6	1,33	451
	45-54	104	33,02	69	21,90	48	15,24	50	15,87	33	10,48	3	0,95	8	2,54	315
	55-64	65	41,14	41	25,95	21	13,29	20	12,66	10	6,33	0	0,00	1	0,63	158
	64-74	66	91,67	2	2,78	0	0,00	3	4,17	1	1,39	0	0,00	0	0,00	72
	More then 74	67	100,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	67
Work status	Pupil	17	18,48	56	60,87	16	17,39	3	3,26	0	0,00	0	0,00	0	0,00	92
	Student	22	10,68	89	43,20	41	19,90	47	22,82	7	3,40	0	0,00	0	0,00	206
	Unemployed	149	49,01	95	31,25	37	12,17	9	2,96	12	3,95	0	0,00	2	0,66	304
	Temporarily employed	8	27,59	11	37,93	6	20,69	2	6,90	1	3,45	0	0,00	1	3,45	29
	Employed	131	17,31	219	28,93	129	17,04	144	19,02	105	13,87	15	1,98	14	1,85	757
	Freelancer	0	0,00	4	36,36	1	9,09	1	9,09	3	27,27	1	9,09	1	9,09	11
	Retired	111	95,69	3	2,59	0	0,00	2	1,72	0	0,00	0	0,00	0	0,00	116

	Table 1 (cont) : Distribution of respondents for the indicator of frequency of online shopping														
	Other	25	78,13	5	15,63	1	3,13	1	3,13	0	0,00	0	0,00	0	0,00	32
Average mothly income	No income	140	37,04	158	41,80	46	12,17	28	7,41	5	1,32	0	0,00	1	0,26	378
	< 500 bam	105	51,98	64	31,68	15	7,43	15	7,43	2	0,99	0	0,00	1	0,50	202
	500-1,000 bam	94	40,34	63	27,04	46	19,74	23	9,87	7	3,00	0	0,00	0	0,00	233
	1,000-1,500 bam	74	19,53	116	30,61	69	18,21	65	17,15	47	12,40	6	1,58	2	0,53	379
	1,500-2,000 bam	34	15,96	49	23,00	35	16,43	46	21,60	41	19,25	3	1,41	5	2,35	213
	2,000-2,500 bam	9	9,89	24	26,37	17	18,68	18	19,78	16	17,58	3	3,30	4	4,40	91
	2,500-3,000 bam	5	17,86	4	14,29	3	10,71	9	32,14	4	14,29	2	7,14	1	3,57	28
	> 3,000 bam	2	8,70	4	17,39	0	0,00	5	21,74	6	26,09	2	8,70	4	17,39	23

Source: Authors' research

The distribution shown for this indicator shows the influence of socio-demographic characteristics. For example, a lower frequency of shopping was recorded among respondents living in rural areas, respondents of Roma nationality, respondents of atheistic orientation and national minorities, respondents over 64 years of age, students, pensioners and temporary employees, and respondents with an average monthly income below 1,000 KM. Only in the case of gender was a fairly even distribution of respondents' responses to this indicator recorded.

The distribution of respondents according to the second indicator, which refers to the frequency of use of mobile and internet banking, was made on the same principle which is shown in Table 2.

Table 2 : Distribution of respondents for the indicator of frequency of use of mobile and internet banking

	Categories	How often have you used mobile or internet banking in the last year?														Total
		0		1-10		10-20		20-40		40-80		80-100		>100		
		[1]	[%]	[1]	[%]	[1]	[%]	[1]	[%]	[1]	[%]	[1]	[%]	[1]	[%]	
Gen	Male	342	43,29	67	8,48	67	8,48	74	9,37	78	9,87	53	6,71	109	13,80	790
	Female	342	45,18	87	11,49	58	7,66	72	9,51	60	7,93	54	7,13	84	11,10	757
Loc	Urban	501	41,34	123	10,15	105	8,66	112	9,24	115	9,49	96	7,92	160	13,20	1212
	Rural	183	54,63	31	9,25	20	5,97	34	10,15	23	6,87	11	3,28	33	9,85	335
Nationalaty	Muslim	281	41,26	100	14,68	56	8,22	72	10,57	47	6,90	54	7,93	71	10,43	681
	Serb	239	49,28	29	5,98	41	8,45	44	9,07	46	9,48	35	7,22	51	10,52	485
	Croat	103	41,20	15	6,00	20	8,00	16	6,40	33	13,20	15	6,00	48	19,20	250
	Jew	8	61,54	0	0,00	0	0,00	0	0,00	2	15,38	2	15,38	1	7,69	13
	Roma	6	66,67	2	22,22	0	0,00	1	11,11	0	0,00	0	0,00	0	0,00	9
	Atheist	31	49,21	2	3,17	2	3,17	9	14,29	7	11,11	1	1,59	11	17,46	63
	Other	16	34,78	6	13,04	6	13,04	4	8,70	3	6,52	0	0,00	11	23,91	46
Age	15-19	103	56,59	29	15,93	24	13,19	13	7,14	5	2,75	6	3,30	2	1,10	182
	20-29	127	42,05	49	16,23	22	7,28	37	12,25	22	7,28	15	4,97	30	9,93	302
	30-44	126	27,94	51	11,31	48	10,64	44	9,76	51	11,31	44	9,76	87	19,29	451
	45-54	130	41,27	14	4,44	19	6,03	29	9,21	37	11,75	35	11,11	51	16,19	315
	55-64	64	40,51	11	6,96	11	6,96	21	13,29	21	13,29	7	4,43	23	14,56	158
	64-74	67	93,06	0	0,00	1	1,39	2	2,78	2	2,78	0	0,00	0	0,00	72
	More then 74	67	100,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	0	0,00	67
Work status	Pupil	58	63,04	20	21,74	10	10,87	4	4,35	0	0,00	0	0,00	0	0,00	92
	Student	87	42,23	39	18,93	28	13,59	26	12,62	9	4,37	5	2,43	12	5,83	206
	Unemployed	255	83,88	16	5,26	8	2,63	8	2,63	6	1,97	2	0,66	9	2,96	304
	Temporarily employed	12	41,38	9	31,03	3	10,34	1	3,45	2	6,90	0	0,00	2	6,90	29
	Employed	136	17,97	68	8,98	73	9,64	101	13,34	117	15,46	97	12,81	165	21,80	757
	Freelancer	0	0,00	1	9,09	2	18,18	0	0,00	2	18,18	1	9,09	5	45,45	11
	Retired	112	96,55	0	0,00	1	0,86	2	1,72	1	0,86	0	0,00	0	0,00	116
	Other	24	75,00	1	3,13	0	0,00	4	12,50	1	3,13	2	6,25	0	0,00	32
Average mothly income	No income	258	68,25	52	13,76	30	7,94	21	5,56	6	1,59	2	0,53	9	2,38	378
	< 500 BAM	169	83,66	13	6,44	9	4,46	8	3,96	0	0,00	0	0,00	3	1,49	202
	500-1,000 BAM	124	53,22	24	10,30	19	8,15	27	11,59	20	8,58	8	3,43	11	4,72	233
	1,000-1,500 BAM	82	21,64	42	11,08	38	10,03	50	13,19	48	12,66	48	12,66	71	18,73	379
	1,500-2,000 BAM	34	15,96	14	6,57	19	8,92	25	11,74	37	17,37	36	16,90	48	22,54	213
	2,000-2,500 BAM	13	14,29	7	7,69	8	8,79	13	14,29	18	19,78	7	7,69	25	27,47	91
	2,500-3,000 BAM	4	14,29	0	0,00	2	7,14	1	3,57	3	10,71	5	17,86	13	46,43	28
	> 3,000 BAM	0	0,00	2	8,70	0	0,00	1	4,35	6	26,09	1	4,35	13	56,52	23

Source: Authors' research

Respondents living in rural areas, Jewish and Roma nationalities, over 64 years of age, students, unemployed and retired people, and respondents with an average monthly income of under 500 KM, recorded a lower frequency of using mobile and internet banking compared to other categories, based on which it is possible to conclude that sociodemographic characteristics influence the frequency of using mobile and internet banking as the fourth indicator used to research internet use. As with the previous indicator, only the gender structure recorded an approximately equal frequency among male and female respondents.

5. Concluding Remarks

The research encompasses a comprehensive demographic and behavioral analysis of respondents to understand their digital engagement, particularly focusing on online shopping and internet banking habits. The study's demographic overview details participation across administrative entities, urban and rural areas, gender, age groups, nationalities, employment status, and income levels, thereby providing a nuanced understanding of how different population segments interact with digital platforms.

Entity-based data highlights the predominance of respondents from the Federation, followed by significant representation from Republika Srpska and minimal from Brčko District. This distribution reflects the varied socio-political landscape and informs the socio-economic context in which digital behaviors occur. Urban respondents markedly outnumber their rural counterparts, emphasizing a common digital divide trend as urban areas generally benefit from better digital infrastructure and services. This urban predominance is critical when considering policy interventions aimed at increasing digital inclusivity.

Gender distribution among respondents is nearly equal, allowing balanced comparative insights into male and female digital usage patterns. The age spectrum represented in the data reveals that the majority of active digital consumers belong to the economically vibrant age groups, predominantly between twenty and forty-four years. Such age-related trends inform targeted strategies for digital marketing and service design. The presence of older age groups, though smaller, is essential to understand barriers to adoption and areas for support in digital literacy expansion.

Ethnic and national diversity among respondents is pronounced, with Muslim/Bosniak, Serb, and Croat groups forming the bulk of participants. These cultural delineations can influence digital access and preferences, calling for culturally aware approaches in technology implementation and customer engagement. Similarly, the employment landscape informs the extent to which economic activity correlates with digital engagement, highlighting that students and employed individuals maintain higher interaction levels with online platforms compared to pensioners and marginalized groups.

Income patterns reveal a broad spectrum, from no income to higher income brackets, underscoring how economic capacity significantly impacts digital service usage and online shopping frequency. The analysis emphasizes economic constraints as a determining factor of digital engagement, evidencing a layered digital divide not just geographically but socioeconomically.

Behaviorally, the data reveals moderate online shopping adoption, with substantial proportions engaging infrequently or not at all over the past year. Similarly, internet and mobile banking usage rates exhibit a wide range, reflecting differing levels of trust, access, and digital aptitude. These behavioral insights suggest opportunities for growth in digital service adoption contingent upon enhancement in accessibility, education, and service quality.

In conclusion, this multifaceted demographic and behavioral analysis provides rich, actionable insights for policymakers, businesses, and digital service providers. Addressing the nuanced needs of diverse demographic groups and targeting the identified gaps in rural areas, among older populations, and lower-income brackets will be essential for promoting equitable digital engagement. Emphasizing inclusivity, tailored education programs, and robust infrastructure will enable the bridging of the digital divide, consequently enhancing overall digital economy participation and fostering sustainable growth.

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