



CONSUMER ONLINE SHOPPING BEHAVIOUR IN THE REPUBLIC OF SERBIA POST-COVID-19

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Abstract

The COVID-19 pandemic has drastically changed the way individuals and companies function. Several authors investigated consumer behavior after the appearance of the virus. However, no study in Serbia examined online shopping patterns after the pandemic, i.e., after the official declaration of the end of the pandemic by the World Health Organization in May 2023 (post-COVID-19). The aim of this paper is to explore whether there is a significant association between purchasing online before and in the post-COVID-19 period, as well as between consumer age and location and purchasing behavior in the post-COVID-19 period. The data of 298 respondents from Serbia was collected during January 2024. The Chi-square test results indicated a relationship between online shopping habits before and after the pandemic, with 73% of previous non-online shoppers adopting e-commerce in the post-pandemic period. However, the results also revealed no significant association between age or location and the decision to shop online after the pandemic. The study suggests that businesses should prioritise enhancing online shopping platforms, as many consumers have continued or begun using them. Furthermore, it recommends that businesses implement broader, more uniform strategies. Moreover, the study provides a theoretical contribution by expanding knowledge on consumer behavior in the post-pandemic period.

Key words: consumer behaviour, COVID-19, purchase, online shopping, post-COVID-19.

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ПОНАШАЊЕ ПОТРОШАЧА ПРИЛИКОМ ОНЛАЈН КУПОВИНЕ НАКОН COVID-19 ПАНДЕМИЈЕ У РЕПУБЛИЦИ СРБИЈИ

Апстракт

Пандемија вируса *COVID-19* значајно је променила начин на који појединци и компаније функционишу. Неколико аутора је истраживало понашање потрошача након појаве вируса, међутим, у Србији није спроведено истраживање које би испитало и упоредило обрасце онлајн куповине после пандемије, тј. у периоду након званичног проглашења завршетка пандемије од стране Светске здравствене организације у мају 2023. године (пост-*COVID-19*). Циљ овог рада је да се истражи да ли постоји значајна повезаност између куповине путем интернета пре и у пост-*COVID-19* периоду, као и између старосне доби и локације потрошача и понашања у пост-*COVID-19* периоду. Подаци о 298 испитаника из Србије прикупљени су током јануара 2024. године. Резултати Хи-квадрат теста су указали на постојање везе између навика везаних за онлајн куповину пре и након пандемије, при чему је 73% ранијих некорисника онлајн куповине усвојило е-трговину у постпандемијском периоду. Међутим, резултати су такође показали да нема значајне повезаности између година и локације и одлуке да се купује онлајн након пандемије. Студија предлаже да предузећа треба да дају приоритет унапређењу онлајн платформи за куповину, јер многи потрошачи настављају или су започели да их користе. Поред тога, препоручује се да предузећа имплементирају шире и униформније стратегије. Такође, студија пружа теоријски допринос проширивањем знања о понашању потрошача у постпандемијском периоду.

Кључне речи: понашање потрошача, COVID-19, куповина, онлајн куповина (куповина путем интернета), пост-COVID-19 период.

INTRODUCTION

In recent years, the world faced a pandemic which began at the end of 2019. The coronavirus disease (COVID-19) was first identified in Wuhan, China, and represented a new strain of coronavirus that had not previously been detected in humans (European Centre for Disease Prevention and Control, n.d.). The severity of the virus is clear, as it had caused 7,031,216 deaths and registered 774,631,444 cases by February 2024 (World Health Organization - WHO, n.d.). To limit the spread of the virus between 2019 and 2023, governments worldwide implemented various measures, including restricting movement, closing malls and bars, enforcing mask mandates in public spaces, and promoting social distancing (Ivanović & Antonijević, 2020). The Republic of Serbia was one of the countries affected by the virus. As of February 29, 2024, Serbia had confirmed 2,473,599 cases, with 17,715 deaths (Ministry of Health of the Republic of Serbia COVID-19, n.d.).

The COVID-19 pandemic significantly altered consumer behavior and reshaped market dynamics. This shift was the result of a complex interplay between individual choices, societal responses, and evolving pub-

lic health measures. The pandemic's influence went beyond changing consumer preferences and also introduced new business challenges and opportunities. Numerous authors have examined the impact of the pandemic on consumer purchasing behavior (Bounie, Youssef, & John, 2020; Kim, 2020; Hashem, 2020; Jensen, Yenerall, Chen, & Yu, 2021; Shen, Namdarpour, & Lin, 2022). Some studies have found that the COVID-19 pandemic has significantly impacted online shopping behavior, with people preferring the safety of online purchases over the risk of infection in physical stores (Soares et al., 2022; Szymkowiak et al., 2021). Bhatti et al. (2020) found that global online shopping increased due to COVID-19. Similarly, Donthu and Gustafsson (2020) examined how consumer purchasing patterns changed across various countries, revealing global trends such as a surge in online shopping, a shift in spending priorities toward essential goods, and a heightened focus on health and hygiene products. Additionally, a global study by Cruz-Cárdenas et al. (2021) conducted a bibliometric analysis to track the effects of COVID-19 on consumer behavior worldwide, showing how regions adapted to digital technologies and e-commerce platforms during lockdowns. Barrantes-Aguilar, Solís-Rivera and Villalobos (2023) reveal that in a sample of forty countries, digital consumer behavior evolved during the pandemic from a diverse range of characteristics to a more uniform pattern among consumers across different nations. The findings of Asuamah Yeboah (2023) highlight significant changes in consumer behavior in developing countries, including decreased spending on non-essential items, a growing dependence on online shopping platforms, a stronger preference for local and domestic products, and difficulties in maintaining brand loyalty. These shifts reflect the impact of the pandemic on consumption patterns and economic constraints. Gupta and Mukherjee (2022) reveal that those who had a positive experience during the pandemic showed a stronger sustainable self-identity, which led to more sustainable consumption practices and a shift towards online shopping in India. Consequently, individuals need to possess an adequate level of digital skills to effectively use digital services (Bradić-Martinović & Banović, 2018; Lazić, Vukmirović, Banović, Simović, & Paunović, 2023; Jevtić, Vučeković, & Tasić, 2023). Recognising the intricate relationship between consumer behavior and the diverse effects of COVID-19, Ivanović et al. (2020) identified significant differences in purchasing behavior before and during the COVID-19 pandemic in Serbia. The same authors also explored the main motivations for online shopping, the most commonly purchased goods and services, and payment methods. However, there is a lack of studies, both globally and in Serbia, that focus on consumer behavior after the official declaration of the end of the pandemic, creating a gap in understanding the trends in consumer habits. Bashar et al. (2023) conducted a bibliometric analysis of 635 articles on consumer behavior

during COVID-19, emphasising the need for future research to investigate changes in purchasing behavior both before and after the pandemic. Understanding behavioral changes can help businesses adjust their strategies to better meet consumers' needs and preferences. This analysis could also reveal shifts in priorities, spending habits, and the adoption of digital technologies, which are crucial especially for Serbia's future development. Additionally, it provides insights into market resilience and can help predict future trends. This study focuses on the Republic of Serbia, investigating whether consumer behavior changed following the end of the COVID-19 pandemic. The aim is to analyse consumer behavior during the post-declaration phase, after the World Health Organization (WHO) ceased classifying COVID-19 as a global health emergency in May 2023. Specifically, the authors examine whether consumer habits shifted between the pre-pandemic period and the post-declaration phase. Additionally, the study explores the relationship between post-COVID-19 online shopping behavior and socio-demographic variables such as age and location. By comparing key factors like the main motivations for online shopping, the most commonly purchased goods and services, and payment methods before and after the pandemic, this paper addresses gaps in previous research. The study offers a theoretical contribution by expanding knowledge on consumer behavior, and practical implications by providing relevant organisations with insights into individuals' online shopping habits.

LITERATURE REVIEW

Previous epidemics, such as SARS and MERS, have influenced humans by modifying their behavior and contributed to an increase in the number of online purchases. This stand is confirmed by Forster and Tang (2005) through their examination of SARS in Hong Kong. The COVID-19 pandemic significantly accelerated the shift toward online shopping (Asuamah Yeboah, 2023; Gupta & Mukherjee, 2022). Bhatti et al. (2020) and Donthu and Gustafsson (2020) also found a global rise in e-commerce, with consumers prioritising essential goods like food and hygiene products. Cruz-Cárdenas et al. (2021) highlighted how regions adapted to digital technologies during lockdowns, further entrenching online shopping habits. Das et al. (2022) observed increased demand for affordable substitutes in unorganised sectors, driven by financial constraints. Billewar et al. (2022) and Diaz-Gutierrez, Mohammadi-Mavi, and Ranjbari (2023) stated that the pandemic altered consumer behavior in both online and in-store shopping environments. Shen, Lin, and Namdarpour (2022) indicated a significant shift from in-store to online purchasing due to the pandemic. Additionally, Nikolić, Perčić, and Nećak

(2022) confirmed a change in the shopping behavior of Serbian consumers. Based on this, the following hypothesis is formulated:

H1 – There is a significant association between purchasing online before COVID-19 and in the post-COVID-19 period.

According to Slabá (2020), age significantly influences consumer behavior, a finding that was further supported by Truong and Truong (2022). During the initial phase of the pandemic, online shopping activity increased across all age groups in California (Young, Soza-Parra, & Circella, 2022). Furthermore, official data from Statista (2023) and Eurostat (2022) demonstrates differences in online shopping habits among various age groups. Additionally, Shen, Lin and Namdarpour (2022) showed that the elderly population, who previously did not purchase online, started online shopping after the appearance of COVID-19. Baubonienė and Gulevičiūtė (2015) indicate that e-commerce is most commonly used by individuals between the ages of 25 and 34. Other studies have also demonstrated that aging significantly impacts consumer behavior, leading to changes in preferences, attitudes, and decision-making processes (Shukla, 2023). Based on these previous studies, the following hypothesis is formulated:

H2 – There is a significant association between consumer age and purchasing online in the post-COVID-19 period.

Numerous studies have investigated the influence of location on shopping behavior (Widowati & Purwanto, 2014; Bell, 2014; Shobirin et al., 2016; Ariyanti & Fachrodji, 2021). Ren and Kwan (2009) suggest that individuals with limited access to nearby stores are more likely to shop online. Conversely, Adibfar, Gulhare, Srinivasan, and Costin (2022) found that the area of residence (urban/rural) does not significantly impact consumers' e-commerce behavior. Based on this, the following hypothesis is defined:

H3 – There is a significant association between consumer location and purchasing online in the post-COVID-19 period.

In the following section, the authors provide an overview of data from the Statistical Office of the Republic of Serbia. The analysis spans the period before, during, and after the declaration of the end of the pandemic (2018-2023).

Online Shopping in the Republic of Serbia (2018-2023)

Table 1 shows the frequency of online purchases by individuals in the Republic of Serbia in the period between 2018 and 2023 in percentages.

*Table 1. Frequency of online purchases of individuals (%)
in the period 2018-2023 in the Republic of Serbia*

Frequency of online purchases	Year					
	2018	2019	2020	2021	2022	2023
In the last 3 months	30.9	34.2	36.1	42.3	47.8	51.0
More than 3 months (less than 1 year)	14.6	9.7	11.8	10.6	15.7	13.2
More than a year	9.1	13.1	9.1	8.2	9.5	9.2
Never used	45.4	43.0	43.0	39.0	27.1	26.6

Source: Statistical Office of the Republic of Serbia (2023)

It can be observed that during the 2018-2023 period, the share of those who have never purchased online decreased, indicating the popularity of e-shopping. Table 1, which presents statistical data on the frequency of online purchases in Serbia from 2018 to 2023, aligns closely with the results of our study. The table shows a clear increase in the percentage of individuals who reported online purchases in the last three months at the time of completing the survey, rising from 30.9% in 2018 to 51.0% in 2023. This trend reflects the growing adoption of e-commerce, particularly during and after the COVID-19 pandemic.

Our study results are consistent with these statistics, as we observed that a significant number of respondents continued to shop online in the post-pandemic period, with 73.33% of individuals who had not shopped online before the pandemic adopting this behavior after the pandemic. This reinforces the idea that the pandemic catalysed the widespread acceptance of online shopping in Serbia. Additionally, our findings showed that those who were already engaged in online shopping before the pandemic have maintained this habit, further contributing to the upward trend observed in Table 1. The alignment between national statistical data and our survey results enhances the validity of our conclusions, highlighting the long-term impact of COVID-19 on consumer behavior and the need for ongoing improvements to online shopping platforms in Serbia.

Table 2 presents the list of goods or services purchased (ordered) online for private use in the previous year.

Table 2. List of top five goods or services bought (ordered) online for private use in the previous year shown in % of individuals

Goods or services	2018	Goods or services	2023
Clothes, sports goods	55.5	Clothes, shoes, accessories	69.7
Household goods	22.6	Sports equipment	28.1
Electronic equipment	18.3	Furniture, home goods	17.2
Books/magazines/newspapers	12.2	Food Delivery	17.2
Medicines	8	Other	16.6

Source: Statistical Office of the Republic of Serbia (2023a)

It is evident that *clothes* were the most popular category in both years. These statistics align with U.S. official data (Statista, 2023a), in which clothes and shoes are the two most popular categories for online purchases. After the appearance of COVID-19, ordering food online has become popular among individuals, resulting in a high position of category *Food delivery* (Glovo, Wolt, etc.). Table 3 shows the frequency of individuals' online purchasing. Forster and Tang (2005) stated that besides the increased online shopping due to the epidemic, the most bought products were cleaning and existential products. In the case of MERS in South Korea, Jung et al. (2016) found that the highest share of goods purchased online consists of grocery products.

Table 3. Frequency of online shopping in the previous three months (2018-2021)

Frequency	2018	2019	2020	2021
1-2 times	57	53.2	51	64.1
3-5 times	27.2	30.6	35.1	30.2
6-10 times	10.2	9.4	10.2	4.4
More than 10	5.6	6.8	3.6	1.3

Note: For the years 2022 and 2023, the Statistical office did not provide the same analytics preview, so the authors did not include data in a table.

Source: Statistical Office of the Republic of Serbia (2023)

Based on the available data from Table 3, it can be concluded that during the period between 2019 and 2021, the percentage of those who purchased 1-2 times in the last three months increased at the time of completing the survey, while the share of those who made online purchases more than ten times decreased. Table 4 provides an overview of money spent on online shopping.

Table 4. Money spent by individuals on online shopping in the Republic of Serbia in the previous three months (% of individuals) in the period 2018-2021

Money spent (in EUR)	2018	2019	2020	2021
Less than 50	55.4	59.7	55.6	49.5
50-100	23.4	24.8	22.1	28.5
100-500	17.3	12.6	18.5	15.2
500-1,000	2.1	0.9	1.8	0.7
1,000 and more	0.7	1	0.1	0.1

Note: For 2022 and 2023, the Statistical office did not provide the same analytics, so the authors did not include data in a table.

Source: Statistical Office of the Republic of Serbia (2023a)

Table 4 shows that most individuals bought goods (or services) for less than 50 EUR each year of the observed period. Additionally, more people spent between 50 and 100 EUR in 2021 (compared to 2018-2020). The cause for that could be the financial aid provided to citizens by the government of the Republic of Serbia to reduce the consequences of COVID-19.

METHODOLOGY

The total sample size of 298 respondents from Serbia comprised 82.55% women and 17.45% men. The structure of the sample by age category is shown in Table 5.

Table 5. The structure of the sample by age group (%)

Age group	%
18-24	25.50
25-34	44.97
35-44	14.77
45-54	10.07
55-64	3.36
Other	Below 1%

Source: Authors

The respondents belong mainly to the age groups 25-34 and 18-24. These statistics align with official Statista data (2023), indicating that Instagram users, one of the main survey distribution channels, are predominantly aged between 25 and 34 years (30.3%), and 18 and 24 years old (30.8%).

The primary location of the respondents is Belgrade (77.85%), with other cities that make up a total of 12.15%. That corresponds with the official statistics of the Republic of Serbia (2023), which show that Belgrade is the largest city with approximately $\frac{1}{4}$ of the total population.

For this study, the authors used the same instrument used in the study conducted in 2020, but with adaptations specific to this research. The reason for using an almost identical online questionnaire is to have consistency in analysis. The questionnaire was distributed via social networks: LinkedIn, WhatsApp, Viber, Facebook, and Instagram.

The questionnaire consists of six socio-demographic questions and questions regarding shopping habits before and after the pandemic, with a detailed examination of the behavior of online shopping users (frequency of buying online, motives for purchase, category of goods/services, payment methods, etc.) and non-users (the reasons for not shopping online). The estimated average time for filling out the survey is less than five

minutes. The survey was distributed in January 2024, i.e., in the post-COVID-19 period (after May 2023).

To examine and determine the significance of the association between the mentioned variables, we used the Chi-Square test with a significance level of 5%.

RESULTS AND DISCUSSION

The results show that most online shopping users purchased clothes and sporting goods (Table 6). Ivanović et al. (2020) also reported similar findings during the pandemic.

Table 6. Category of goods or services that respondents in Serbia purchased or ordered over the Internet (e-commerce) for private use in the post-COVID-19 period

Category of goods	%
Clothes, sports goods	39.79
Books/magazines/newspapers	26.64
Tickets for events	26.27
Other	7.30

Source: Authors

The motives for online purchases in the post-COVID-19 period are outlined in Table 7. The most common reason was the desire to save time compared to in-store shopping, a finding consistent with the observations of Huseynov and Yildirim (2016), and Mittal (2013), who emphasised the significance of time-saving in the context of busy lifestyles. On the other hand, some authors have pointed out challenges in online purchasing, mainly due to the inability to physically interact with products, such as feeling, smelling, or trying them out (Katawetawaraks & Wang, 2011; Al-Debei et al., 2015). Interestingly, laziness was mentioned as a motive, though it accounted for less than 1%.

Table 7. Motives for online purchasing in the post-COVID-19 period (% of respondents)

Motives	%
Saving time	40.92
Better conditions with online ordering	32.62
Lower costs	19.69
More free time	6.15
Lazy to purchase in-store	0.62

Source: Authors

During the pandemic, individuals in Serbia bought online because many stores operated exclusively on the Internet. Additionally, individuals wanted to minimise health risks and save time (Ivanović et al., 2020).

Table 8. Payment methods

Method	%
Cash on delivery	36.69
By card	33.87
M-banking	19.35
E-banking	10.08

Source: Authors

As indicated in Table 8, the predominant payment method is cash on delivery. This finding aligns with previous studies where this method consistently outranked e-payment options (Purwandari, et al., 2022). Halaweh (2018) noted that cash on delivery remains a preferred method due to concerns over online payment security. However, in contrast, countries like the United States experienced a stronger shift toward e-payments during the pandemic (Jensen et al., 2021), reflecting varying levels of trust and digital infrastructure across different regions. The continued preference for this payment approach is attributed to customers' apprehension, stemming from a perceived lack of security and trust in alternative payment methods. Furthermore, a segment of unbanked individuals exclusively use cash for transactions (World Bank, 2021).

The Chi-Square test results are shown in Tables 9, 10, and 11.

Table 9. Chi-Square test of H1

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	52.122	1	.000		
Continuity Correction ^b	48.944	1	.000		
Likelihood Ratio	49.547	1	.000		
Fisher's Exact Test				.000	.000
Linear-by-Linear Association	51.947	1	.000		
N of Valid Cases	298				

Source: Authors' calculation

Results from Table 9 show that the p-value ($p=0.000$) is lower than the alpha ($\alpha=0.05$). It means that the null hypothesis is rejected, and it can be concluded that there is a significant association between purchasing online before and in the post-COVID-19 period.

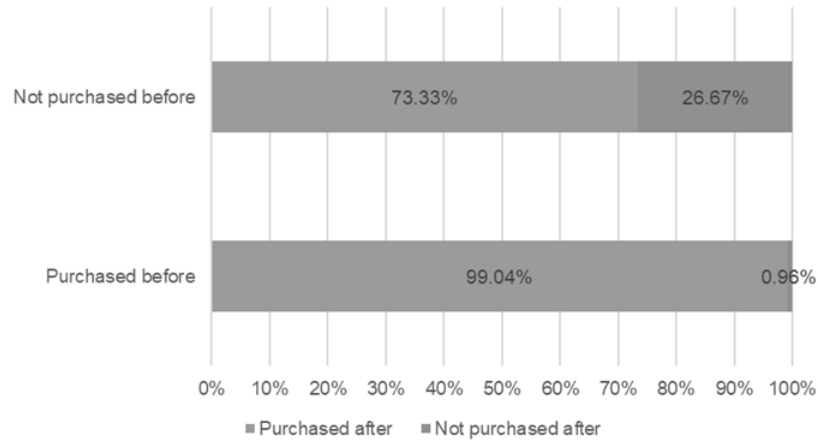


Figure 1. Consumer behavior before COVID-19 and in the post-COVID-19 period

Thus, around 73% of those who had never bought before purchased in the post-COVID-19 period, while 99% of those who purchased before continued purchasing in the post-COVID-19 period (Figure 1).

The result aligns with the findings of Ivanović et al. (2020), considering they found a significant association between consumer behavior before and during a pandemic. Diaz-Gutierrez et al. (2023) found that customers did not fully transition to online purchasing. The study suggests that, following the COVID-19 pandemic, many individuals reverted to in-store purchasing. Kumar et al. (2024) stated that changes resulting from COVID-19 led to a shift towards online purchasing, with more people opting for this method over in-store shopping. Similar findings were reported in other regions, such as the United States, where Jensen et al. (2021) observed a substantial increase in online shopping during the pandemic, which persisted post-pandemic. Similarly, Bhatti et al. (2020) documented a global rise in e-commerce during COVID-19, emphasising that digital transformation accelerated across various sectors, reinforcing our results which show a strong continuation of online shopping. Additionally, respondents who did not shop online after the pandemic (4.4% of the total sample) most commonly cited the following reasons for avoiding online shopping: a preference for seeing products in person (76.9%), uncertainty about product quality (38.5%), and long delivery times (30.8%). These findings are in line with Daroch, Nagrath, and Gupta (2021), Karthikeyan (2016), and Alam and Elaasi (2016).

The results presented in Table 10 show that the p-value is higher than the alpha, indicating a non-significant association between consumer age and online purchasing behavior in the post-COVID-19 period. Ullah et al. (2019) similarly found no significant relationship between consum-

ers' age and purchasing decisions. Although younger demographics are increasingly using the internet and online platforms for shopping (Statista, 2023), older individuals also continue to use these platforms, either as a habit developed during the pandemic or as a more efficient method of shopping. In contrast, Vasudeva (2022) and Slabá (2019) found different results. Vasudeva (2022) observed that age influences consumer behavior in the socio-digital era, while Slabá (2019) concluded that age significantly affects consumer behavior.

Table 10. Chi-Square test of H2

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.311	1	.577		
Continuity Correction ^b	.105	1	.746		
Likelihood Ratio	.302	1	.583		
Fisher's Exact Test				.641	.363
Linear-by-Linear Association	.310	1	.578		
N of Valid Cases	298				

Source: Authors

As indicated in Table 11, the p-value surpasses the alpha level ($\alpha=0.05$), implying no significant association between consumer location and online purchasing in the post-COVID-19 period. This finding aligns with the results of Singhdong and Setyawan (2016), who concluded that customers' location does not influence purchase decisions, while Brata et al. (2017) and Rizal et al. (2017) reported the opposite results. Furthermore, Ren and Kwan (2009) suggested that geographical location, particularly access to physical stores, plays a crucial role in consumers' shopping decisions. Thus, individuals may prefer purchasing online when the store is not so nearby.

Table 11. Chi-Square test of H3

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	1.228	1	.268		
Continuity Correction ^b	.741	1	.389		
Likelihood Ratio	1.143	1	.285		
Fisher's Exact Test				.321	.192
Linear-by-Linear Association	1.224	1	.269		
N of Valid Cases	298				

Source: Authors

CONCLUSION

The COVID-19 pandemic significantly reshaped consumer behavior, altering market dynamics through a complex interplay of individual choices, societal responses, and evolving public health measures. This study examines online shopping habits before and after COVID-19 and explores the relationship between consumer demographics, such as age and location, and post-COVID-19 purchasing behavior. The findings of this research provide a solid foundation for future studies, as the post-COVID-19 effects on consumer behavior remain underexplored, particularly in the Republic of Serbia.

The Chi-Square test was used to evaluate the hypotheses, revealing a significant association between pre-pandemic and post-COVID-19 behavior. However, neither age nor location showed a statistically significant relationship with post-COVID-19 purchasing behavior. Notably, consumers who purchased online before the pandemic continued doing so afterward. For those who had not previously shopped online, 73.33% changed their behavior and began purchasing online in the post-COVID-19 period.

The study also found that the most frequently purchased items included clothing and sports goods, household items, electronic equipment, and books (magazines and newspapers). A shift in consumer behavior was observed, with consumers focusing on essential goods like groceries and medicines during the pandemic, and transitioning to non-essential, higher-priced items such as electronics and household goods in the post-pandemic period. The primary motives for online shopping after the pandemic were time-saving and better conditions offered by online platforms. The most common payment methods were cash on delivery and card payments. Theoretically, the study contributes to the existing body of knowledge on consumer behavior by providing insights into online shopping habits in Serbia, and by offering a deep understanding of behavior patterns before and after the pandemic. The practical implication is that businesses should prioritise maintaining the quality of their online platforms and develop strategies to attract individuals who do not currently shop online. Companies should therefore adopt a more effective approach to persuade non-users by emphasising the numerous advantages of online shopping. Policymakers should take appropriate steps to enhance trust among individuals, strengthen digital literacy, and increase confidence in e-payment systems, thereby addressing the preference for cash on delivery and encouraging the adoption of secure online payment methods.

There are several limitations to this study. First, the sample size is relatively small, which may limit the generalisability of the findings to the broader population. Future studies should include a larger sample to improve the robustness of the results. Second, women were predominant in the sample, as they are generally more likely to participate in online surveys (Becker, 2022; Smith, 2008). This gender imbalance may skew the re-

sults, so future research should ensure a more balanced gender representation to accurately reflect consumer behavior. Third, distributing the questionnaire via social media platforms, while effective in reaching a large audience, may have introduced selection bias, as social media users tend to be younger and more digitally engaged. Future studies should incorporate a combination of survey methods. Fourth, only two socio-demographic variables are included in the analysis (age and location). Future studies should incorporate a wider range of socio-demographic variables such as gender, income, education level, occupation, marital status, and digital literacy level, to provide a more comprehensive understanding of this topic. Fifth, the study is conducted only on the Serbian population. Conversely, further research should incorporate other countries to compare consumers' purchasing habits. Additionally, longitudinal studies are recommended to provide a more detailed understanding of changes in consumer behavior over time.

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ПОНАШАЊЕ ПОТРОШАЧА ПРИЛИКОМ ОНЛАЈН КУПОВИНЕ НАКОН COVID-19 ПАНДЕМИЈЕ У РЕПУБЛИЦИ СРБИЈИ

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Резиме

Пандемија вируса COVID-19 значајно је променила начин на који појединци и компаније функционишу. Циљ ове студије је да утврди да ли постоји значајна веза између куповиних навика пре и после пандемије, као и да ли постоји повезаност између демографских карактеристика (старост и место пребивалишта испитаника) и понашања потрошача у пост-COVID-19 периоду.

Истраживање је спроведено у Србији на узорку од 298 испитаника током јануара 2024. године. Резултати Хи-квадрат теста показују да постоји значајна повезаност између куповиних навика пре и после пандемије. Међутим, старост и место пребивалишта нису имали значајну повезаност са онлајн куповином након пандемије. Откривено је да су потрошачи који су раније куповали онлајн наставили са својом навиком и након пандемије, док је 73.33% оних који претходно нису куповали онлајн почело да купује на овај начин. Доминантне категорије производа које су биле предмет куповине након пандемије укључују одећу, кућне апарате и електронску опрему. Основни мотиви за онлајн куповину након пандемије били су уштеда времена и бољи услови наручивања, а најчешћи методи плаћања били су готовином при достави и плаћање картицом. Студија представља адекватну основу за будућа истраживања о понашању потрошача, узимајући у обзир могућност неочекиваних околности са којима се појединци могу суочити на глобалном нивоу.

APPENDIX – QUESTIONNAIRE

1. Gender

- ☐ Female
☐ Male

2. Age

- ☐ Under 18 years
☐ 18-24
☐ 25-34
☐ 35-44
☐ 45-54
☐ 55-64
☐ 65-74
☐ 74+

3. Place of residence

- ☐ Beograd
- ☐ Novi Sad
- ☐ Niš
- ☐ Kruševac
- ☐ Čačak
- ☐ Valjevo
- ☐ Sombor
- ☐ Pančevo
- ☐ Kikinda
- ☐ Subotica
- ☐ Zrenjanin
- ☐ Sremska Mitrovica
- ☐ Užice
- ☐ Šabac
- ☐ Jagodina
- ☐ Kraljevo
- ☐ Kragujevac
- ☐ Bor
- ☐ Požarevac
- ☐ Zaječar
- ☐ Leskovac
- ☐ Pirot
- ☐ Smederevo
- ☐ Vranje
- ☐ Prokuplje
- ☐ Priština
- ☐ Kosovska Mitrovica
- ☐ Gnjilane
- ☐ Peć
- ☐ Prizren
- ☐ Novi Pazar
- ☐ Loznica

4. Before the outbreak of COVID-19 (coronavirus), did you purchase/order products or services online?

- ☐ Yes
- ☐ No

5. Since the end of the pandemic (May 2023), do you purchase/order products or services online?

- ☐ Yes (Proceed to question 6)
- ☐ No (Proceed to question 12)

Behavior since the end of the pandemic - May 2023

6. How frequently do you purchase/order products or services online?

- ☐ Daily ☐ 2-5 times a week ☐ Once a week ☐ 2-3 times a month ☐ Once a month

7. What are the reasons for your online purchases?

- ☐ Lower prices
- ☐ Time savings
- ☐ More free time
- ☐ Many stores offer better conditions through online ordering
- ☐ Other

8. What do you most frequently purchase/order online?

- ☐ Food and groceries
- ☐ Pharmaceutical and hygiene products
- ☐ Clothing and sports equipment
- ☐ Household items (furniture, toys, etc.)
- ☐ Books, magazines, newspapers
- ☐ Accommodation (hotels, etc.)
- ☐ Electronics
- ☐ Tickets for cultural events
- ☐ Telecommunications services
- ☐ Games
- ☐ Movies and music
- ☐ Hardware
- ☐ Other

9. Please indicate how many times you have purchased the following products:

Never Once Twice More than twice

Food and Groceries
 Pharmaceutical and Hygiene Products
 Clothing and Sports Equipment
 Household Items (Furniture, Toys, etc.)
 Books, Magazines, Newspapers
 Accommodation (Hotels, etc.)
 Electronics
 Tickets for Cultural Events
 Telecommunications Services
 Games
 Movies and Music
 Hardware
 Other

10. What is the total amount you typically spend per order for products/services purchased online?

- ☐ Up to 1,000 RSD
- ☐ 1,000-5,000 RSD
- ☐ 5,000-10,000 RSD
- ☐ Over 10,000 RSD

11. How do you make payments?

- ☐ Credit/Debit card
- ☐ Cash on delivery
- ☐ E-banking (via the bank's website)
- ☐ M-banking (via mobile banking app on smartphone or tablet)
- ☐ Other

12. What are the reasons you do not shop online?

- ☐ The process is complicated
- ☐ I am not confident in the quality of the products
- ☐ Long delivery time
- ☐ High shipping costs
- ☐ I prefer to see and try the product in person
- ☐ I do not trust this type of shopping (I do not feel secure)
- ☐ Poor experience
- ☐ Other