# IMPACT OF COVID-19 PANDEMIC ON ONLINE CONSUMER BEHAVIOR IN CROATIA

# UTJECAJ PANDEMIJE COVID-19 NA ONLINE PONAŠANJE POTROŠAČA U HRVATSKOJ

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#### **ABSTRACT**

The COVID-19 global pandemic is one of the defining events of 2020. It has led to radical changes in customer behavior that occurred overnight. Changes are visible in types of products or services customers buy, in the frequency and the way of buying. The aim of this paper is to present consumer behavior of online shoppers in Croatia during the corona pandemic and collect data for future researches. Questionnaire survey was conducted in April 2020. Descriptive statistics is used for presentation of quantitative data. In the last two months, consumers have been buying what they need and what is available in (online) stores. There is a notable growth of online shopping, especially when it comes to groceries. There are consumers who tried buying grocery online for the first time and many will continue buying it that way. The key drivers in their decision-making are the price and the quality of the products. It is evident that consumers have reduced spending their money on all non-essential and luxury products or services. Delivery service, contactless shopping and cashless transactions are in the sellers focus right now, and those factors will evolve, if they want to operate in the future and stay profitable.

**KEYWORDS:** COVID-19, consumer behavior, online shopping, web shop, shopping habits, Croatia

## SAŽETAK

Globalna pandemija koronavirusom (COVID-19) obilježila je 2020. godinu. Dovela je do iznimno brzih i ogromnih promjena u ponašanju potrošača. Promjene su vidljive u vrsti proizvoda i usluga koje potrošači kupuju odnosno konzumiraju, u učestalosti i načinu na koji kupuju. Cilj ovog rada je prikazati ponašanje potrošača u online kupovini u Republici Hrvatskoj tijekom pandemije te prikupiti podatke za buduća istraživanja. Istraživanje putem ankete provedeno je u travnju 2020. godine. Za prikaz kvantitativnih podataka korištena je deskriptivna statistika. U posljednja dva mjeseca potrošači su kupovali ono što im je potrebno i ono što postoji na zalihama u (online) trgovinama. Značajno je povećanje potrošnje putem online kupovine, posebno prehrambenih namirnica. Postoje potrošači koji su u ovoj situaciji po prvi puta kupili namirnice online i mnogi od njih će nastaviti kupovati namirnice putem

interneta. Cijena i kvaliteta su odlučujući faktori u procesu donošenja odluka. Jasno je da su potrošači smanjili potrošnju proizvoda koji nisu ključni za preživljavanje te proizvoda i usluga koje smatraju luksuznim. Dostava, beskontaktna kupovina i bezgotovinske trasnaskcije su trenutno u fokusu prodavača. Ukoliko žele nastaviti poslovati i ostati profitabilni u budućnosti morati će razvijati navedeno.

**KLJUČNE RIJEČI:** COVID-19, ponašanje potrošača, online kupovina, web trgovina, potrošačke navike, Republika Hrvatska

#### 1. INTRODUCTION

The COVID-19 global pandemic has affected people's lifestyle. People are frightened, anxious and confused and the future is uncertain. Coronavirus affected e-commerce and technology. Lockdown procedures have an impact on the country and economy. The pandemic has forced retail shops to remain closed and country's economic growth has decreased. COVID-19 has influenced consumers and all types of businesses, including online businesses. Sellers are facing product shortages so they are unable to satisfy the customers demand. The import and export of facilities are not in working order. One of the outcomes is the increase in price of various products and services.

Consumers were faced with lockdown regimes and store closures. Measures of social distancing require keeping distance from other people, one meter outdoors and two meters indoors. Consumers turned to online shopping to buy groceries, daily necessities and other products. Some of the online shoppers were buying online for the first time. The orders to stay at home changed the way customers look at food purchasing. Food habits needed to be changed. The COVID-19 pandemic changed also the way consumers are paying for their purchase. Consumers saw contactless payments as a cleaner way to pay in stores, and they are also paying more with credit cards during their online purchases. Online shopping is now the first choice for many consumers as they spend more time at home.

Certain changes as an outcome of COVID-19 will be long-lasting. Both sellers and buyers must quickly and in short term adjust to the new circumstances. Consumer wants and needs should drive marketing decisions.

#### 2. METHODOLOGY

Research about the impact of COVID-19 pandemic on online consumer behavior in Croatia is conducted with the online tool Google Forms. For the data collection a questionnaire survey approach is used. The survey questionnaire was developed and distributed by the researcher. Questionnaire survey was conducted in April 2020. The questionnaire comprised 37 questions divided into several categories. Nine questions were related to demographic profile. Closedended questions, multiple choice questions and five-point Likert scale were mostly used. All questionnaires were correctly completed. The sample size is 140 respondents.

The survey was guided by the following research questions:

- Do customers buy more online during COVID-19 pandemic?
- How often do customers buy in traditional shops during COVID-19 pandemic?
- What are dominant reasons for online shopping during COVID-19 pandemic?

- What product characteristic is most important in online shopping during COVID-19 pandemic?
- What are the drivers that initiate online shopping during COVID-19 pandemic?
- What do customers mostly buy online during COVID-19 pandemic?
- What products aren't accessible online during COVID-19 pandemic?
- Do customers buy online beyond Croatian borders?
- Do customers buy more in online pharmacies during COVID-19 pandemic?
- What is the influence of delivery price on online shopping during COVID-19 pandemic?
- Did COVID-19 pandemic influence the rise in number of mobile banking users?

#### Following research goals were defined:

- Identify shopping frequency in traditional and web shops during COVID-19 pandemic
- Identify top reasons for online shopping during COVID-19 pandemic
- Identify main drivers for online shopping during the pandemic
- Identify categories of goods customers buy during the pandemic
- Identify the most important characteristics of products in online shopping during the pandemic
- Identify effect of delivery price on online shopping decision during the pandemic
- Get an insight of shopping in online pharmacies during the pandemic
- Find out what payment methods Croatian consumers prefer in online transactions during the corona pandemic.

The aim of this paper is to provide an overview of Croatian consumer's behavior in online shopping during the new situation like the COVID-19 pandemic.

#### 3. DATA ANALYSIS

The next table gives an overview of basic demographic information about respondents (N=140).

Table 1. Demographic characteristic of the sample

Variable	Subgroup	Frequency	Percentage	Cumulative percentage
Gender	Female	126	90,0	90,0
	Male	14	10,0	100,0
	Total	140	100,0	
Age	18-25 years	13	9,3	9,3
	26-35 years	101	72,1	81,4
	36-45 years	25	17,9	99,3
	46-55 years	1	0,7	100,0
	56 years and over	0	0,0	
	Total	140	100,0	
	Primary school	1	0,7	0,7
Lavalof	Secondary school	53	37,9	38,6
Level of education	Bachelor and Master's degree	84	60,0	98,6
	Higher	2	1,4	100,0
	Total	140	100,0	

	Unemployed	27	19,3	19,3
Employment status	Student	2	1,4	20,7
	Employed	111	79,3	100,0
	Retired	0	0,0	100,0
	Total	140	100,0	
	Under 3.500	5	3,6	3,6
	3.501-5.000	1	0,7	4,3
Monthly	5.001-7.500	15	10,7	15,0
household	7.501-10.000	25	17,9	32,9
income after	10.001-12.500	25	17,9	50,7
tax (in HRK)	12.501-15.000	29	20,7	71,4
	Over 15.000	40	28,6	100,0
	Total	140	100,0	,
	Single	3	2,1	2,1
	Married	120	85,7	87,9
No in the contract of	Extramarital union	12	8,6	96,4
Marital status	Divorced	4	2,9	99,3
	Widowed	1	0,7	100,0
	Total	140	100,0	
	One child	71	50,7	50,7
	Two children	56	40,0	90,7
Familial	Three children	8	5,7	96,4
status	More than three children	2	1,4	97,9
	Without children	3	2,1	100,0
	Total	140	100,0	
	Village	34	24,3	24,3
Place of	Town	34	24,3	48,6
living	City	72	51,4	100,0
	Total	140	100,0	
	Zagreb and outskirts	48	34,3	34,3
	Northern Croatia	35	25,0	59,3
Region	Slavonia and Eastern Croatia	15	10,7	70,0
	Lika and Gorski kotar	4	2,9	72,9
	Istria and Primorje	18	12,9	85,7
	Dalmatia	20	14,3	100,0
	Total	140	100,0	

Source: Author

The sample is consisted from 90% of women and 10% of men. 75.4% of women are in the age group of 26-35 and 50% of men are in the age group of 36-45. 60% of respondents have Bachelor or Master's degree. 79.3% respondent are employed. 73% of employed respondents has monthly household income after tax higher then 10.001 HRK. 85.7% of respondents are married and 92.5% of them have one or two children. Most respondents live in cities. 59.3% of respondents come from Zagreb and outskirts, and Northern Croatia.

There are no differences in gender in making purchase decision in household of respondents (Chart 1), both women and men make purchase decisions equally (62.1%).

Responsible for purchase decision in the household of respondents 100 90 80 70 Frequency 60 50 40 30 20 10 Exclusively Me in most Spouse Spouse in Both equally exclusively most cases me cases ■ Women 37 0 83 Men 2 3 0 5 4

Chart 1. Responsible for purchase decision in the household of respondents

Source: Author

Customers who spend more time online buy more online. The distribution (Table 2) shows that majority of the respondents spend more than 5 hours online in a day. The second major group is respondents who spend 1 to 3 hours online in a day.

Table 2. Distribution according to the variable "Time spent online"

Time spent online	Frequency	Percent	Cumulative percent
< 1h a day	6	4,3	4,3
1-3h a day	46	32,9	37,1
3,5-5h a day	40	28,6	65,7
> 5h a day	48	34,3	100,0
Total	140	100,0	

Source: Author

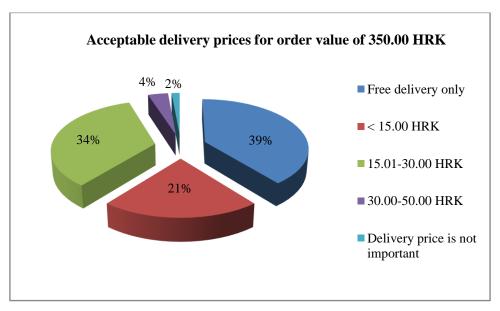
During the pandemic 60.7% of respondents mostly buy online and 39.3% of respondents mostly buy in traditional shops. They go to traditional stores during the pandemic once a week (55% of respondents), every two weeks (19.3% of respondents) and 13.6% of respondents go a couple of times a week. 47.9% of respondents shop online once a week or few times a week.

The top reasons for online shopping during COVID-19 pandemic are restriction of movement without pass (60%), saving time (50.7%) and fear of the coronavirus (32.4%). Other mentioned reasons are supply diversity, saving money and easy search for the best price.

Respondents outlined that the most important characteristics of product in online shopping are delivery (38%), quality (28%) and price (26%). The delivery price affects online shopping decision. Even 87.9% respondents make decision according to delivery price. In case of order

value of 350.00 HRK the most acceptable delivery for 39% of respondents is free delivery (Chart 2). 96.4% of respondents choose delivery to their home or business address.

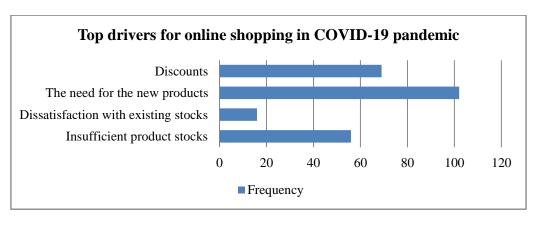
Chart 2. Acceptable delivery prices for order value of 350.00 HRK



Source: Author

The strongest driver for online shopping during the corona pandemic (Chart 3) is the need for the new products (72.9%) and not discounts (49.3%).

Chart 3. Top drivers for online shopping in COVID-19 pandemic



Source: Author

Respondents mentioned other drivers like new cash inflow, lack of domestic products, closed traditional stores with clothes and footwear, and advertisements of new products.

To get informed about the products and services before shopping, respondents use web search engines like Google (67.9%). The largest number of respondents (69.3%) check out online comments and reviews. 44.3% of respondents seek for comments and recommendations of friends and 29.3% of respondents use online price comparison tools like *jeftinije.hr*; *nabava.net*.

During COVID-19 pandemic respondents mostly buy (Chart 4) in the category Clothes, Footwear and Accessories (75.7%). They buy in the category Toys and Kids Equipment to keep children entertained at home (58.6%) and they are stocking up on groceries (31.4%). Respondents think some of the products are not represented enough on the market in following categories: Fruits and Vegetables (47.9%), Home and Garden supplies (20%), Medical Aids (17.1%), Kids Food (14.3%) and Food for Special Needs – Diabetics, Gluten Free and similar (8%).

Online shopping list during COVID-19 pandemic **Sporting Goods** Toys and Kids Equipment Medicines and Medical aids Cosmetics and Beauty Furniture and Home Accessories Electronics Online education Books, Movies, Music Clothes, Footwear and Accessories Food and Beverages 0 20 40 60 80 100 120 ■ Frequency

Chart 4. Online shopping list during COVID-19 pandemic

Source: Author

The corona pandemic didn't have an impact on online shopping across the border. 67.9% of respondents are still shopping online across the Croatian border. 42.9% of respondents buy equally in Croatian and foreign web stores during COVID-19 pandemic.

Early in the pandemic, consumers were focused on buying masks and alcohol in traditional pharmacies. Respondents were asked if they shopped before the pandemic in online pharmacies. 61.4% of respondents did not buy anything in online pharmacies before the pandemic. In COVID-19 pandemic 44% of respondents did not have any transaction in online pharmacies (Chart 5). Just 4% of respondents had four and more transaction in online pharmacies in the pandemic. 75.7% of respondents prefer traditional pharmacies in regards to online pharmacies.

Number of shopping transactions in online pharmacies in the pandemic

4%

Four and more

Two - three

One

Zero

Chart 5. Number of shopping transactions in online pharmacies in the pandemic

Source: Author

Below are results associated with the intensity of attitude towards web stores (five-point Likert scale). Table 3 shows what is important to respondents when shopping in web stores.

Table 3. Respondents attitudes to web stores

	Strongly Disagree	Disagree	Undecided	Agree	Strongly agree
Lower price in regards to					
traditional shops	5,0%	7,9%	36,4%	32,1%	18,6%
Frequency	7	11	51	45	26
Lower price in regards to other					
web shops	5,7%	5,7%	22,9%	35,7%	30,0%
Frequency	8	8	32	50	42
Goods available for immediate					
delivery	11,4%	2,1%	7,9%	32,9%	45,7%
Frequency	16	3	11	46	64
Good delivery price	10,7%	0,7%	3,6%	28,6%	56,4%
Frequency	15	1	5	40	79
Fast delivery	7,9%	2,1%	10,0%	37,1%	42,9%
Frequency	11	3	14	52	60
Non-cash/credit card payment	10,7%	4,3%	24,3%	23,6%	37,1%
Frequency	15	6	34	33	52
Payment on delivery	26,4%	8,6%	21,4%	23,6%	20,0%
Frequency	37	12	30	33	28

Source: Author

Regarding to services, during COVID-19 pandemic 80% of respondents did not buy any online service. Services that are bought online are: job-related online education, non-work-related education, sports trainings, medical consultations and tutoring.

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Most respondents use cell phone for online shopping in COVID-19 pandemic (75% of them). 17% of respondents use laptops. Usage of desktop computers (7%) and tablets (1%) is insignificant small.

In COVID-19 pandemic contactless payment is recommended in order to avoid possible infection. Respondents were asked what way of payment they prefer in online shopping during the corona pandemic. The majority (62.1%) respondents prefer credit cards. 26.4% of respondents prefer cash, 6.5% prefer internet banking and 5% of respondents prefer PayPal. *Before COVID-19 pandemic* 42.9% of respondents had installed mobile banking, 9.3% of respondents had installed only internet banking and 36.4% of them had installed both services. 11.4% of respondents did not install any of mentioned services. *During COVID-19 pandemic* 7 respondents installed mobile banking and 2 respondents installed both mobile and internet banking.

## 4. CONCLUSION

Traditional physical stores are dominant places for shopping in which consumers make social interaction and immediately get the products they want. Product information in online shopping is often limited to images and product description. Online reviews reduce consumers' skepticism. Sellers should identify highlights and lowlights of their online business from the reviews. Online shopping enables adaptability in terms of time, location and type of products and services. The pandemic is an important trigger for those who never shopped online before. They are now in a situation where they rather choose to shop online. Most of respondents think that online shops are more favorable what contributes to their popularity, especially in younger generations. Dominant reasons for online shopping are free delivery, quality and price. Shopping priorities have shifted. The growth in the category Food and Beverages is notable as more consumers have turned to online grocery shopping, some of them for the first time. Online priority purchases are in the categories Clothes, Footwear and Accessories and Toys and Kids Equipment. As the economy reopens, consumer needs in online shopping are shifting once again. The corona pandemic has quickened consumer's adaptation to online shopping. Online shopping in Croatia is on the rise and that will not end after COVID-19 passes, probably won't be reduced either. Increased online purchasing with delivery will be likely maintained after the pandemic. Consumers adjust to the new normal and they will remember online sellers who made their quarantine easier.

Contribution of this paperwork is one of the first overviews of Croatian consumers online shopping habits during COVID-19 pandemic. Future researches could elaborate what changed in Croatia in the last period, between May and August 2020, when lockdown measures slacked. In those researches more respondents and more variables should be included. For example, men should be more represented in the sample, because the gender structure could have influenced the results, and mobile shopping should be explored further.

#### REFERENCES

- 1. Anić, I. D.; Piri-Rajh, S.; Rajh, E. (2010). Razlike u stilovima odlučivanja potrošača s obzirom na spol ispitanika uz poseban osvrt na Hrvatsku. *Tržište*, 22 (1), 29-42, 2010.
- 2. Baker, S. R. R.; Farrokhnia, R. A. A.; Meyer, S. S.; Pagel, M. M.; Yannelis, C. (2020). How does household spending respond to an epidemic? Consumption during the 2020 COVID-19 pandemic. *NBER Working Paper* No. 26949, April 2020

- 3. Bharat Patil, B.; Patil, N. (2020). Impact of COVID-19 pandemic on consumer behaviour. *Mukt Shabd Journal*, 9 (5), 3074-3085, 2020.
- 4. Celik, B.; Dane, S. (2020). The effects of COVID-19 Pandemic Outbreak on Food Consumption Preferences and Their Causes. *Journal of Research in Medical and Dental Science*, 8 (3), 169-173, 2020.
- 5. Chiu, C.; Chang, C.; Cheng, H.; Fang, Y. (2009). Determinants of customer repurchase intention in online shopping. *Online Information Review*, 33 (4), 761-784, 2009.
- 6. Donthu, N.; Gustafsson, A. (2020). Effects of COVID-19 on business and research. *Journal of Business Research*, 117, 284–289, 2020.
- 7. Government of the Republic of Croatia. Official government website for accurate and verified information on Coronavirus (2020). Available at: https://www.koronavirus.hr
- 8. Hasanat, M. W.; Hoque, A.; Shikha, F. A.; Anwar, M.; Hamid, A. B. A; Tat, H. H. (2020). The Impact of Coronavirus (Covid-19) on E-Business in Malaysia. Asian Journal of Multidisciplinary Studies, 3(1), 85-90, 2020.
- 9. Hottenroth, V. (2020). The impact of COVID-19 on e-commerce by category. Available at: https://www.bazaarvoice.com/blog/the-impact-of-covid-19-on-e-commerce-by-category-updated-weekly/
- 10. Kesić, T. (2006). Ponašanje potrošača. Opinio, Zagreb, Croatia
- 11. Kim, R. Y. (2020). The Impact of COVID-19 on Consumers: Preparing for Digital Sales. IEEE Engineering Management Review, 8581(c), 1–1. https://doi.org/10.1109/emr.2020.2990115
- 12. Li, J.; Hallsworth, A. G.; Coca-Stefaniak, J. A. (2020). Changing Grocery Shopping Behaviours Among Chinese Consumers At The Outset Of The COVID-19 Outbreak. Journal of Economic and Social Geography, Special Issue: The Geography of the COVID-19 Pandemic, 111 (3), 574-583, 2020.
- 13. Lim, Y. J.; Osman, A.; Salahuddin, S. N.; Romle, A. R.; Abdullah, S. (2016). Factors influencing online shopping behavior: the mediating role of purchase intention. Procedia Economics and Finance, 35, 401-410, 2016.
- 14. Online Shopping Statistics You Need to Know in 2020. Available at: https://optinmonster.com/online-shopping-statistics/, accessed 04.07.2020
- 15. Online shopping trends 2019 & Key Figures What you need to know. Available at: https://www.nationmaster.com/ecommerce, accessed 04.07.2020
- 16. Štulec, I.; Petljak, K.; Rakarić, J. (2017). Utjecaj demografskih karakteristika potrošača na proces donošenja odluke o kupovini. Ekonomska misao i praksa, 1, 381-404, 2017.
- 17. Zhou, L.; Dai, L.; Zhang, D. (2007). Online Shopping Acceptance Model A Critical Survey of Consumer Factors in Online Shopping. Journal of Electronic Commerce Research, 8 (1), 41-62, 2007.