

PERSPECTIVE OF CONSUMERS AND SELLERS ABOUT THE IMPACT OF COVID-19 PANDEMIC ON E-COMMERCE

PRETHODNO PRIOPĆENJE / PRELIMINARY COMMUNICATION

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ABSTRACT

The popularity of online sales is growing and it is becoming an unavoidable part of people's lives. The process of accepting this form of sales and its development was accelerated by the Covid-19 pandemic, which caused the closure of physical stores, so people were forced to buy products and to use services online. Conducted desk research enabled collection of secondary data sources, based on which (i) a theoretical framework of paper was created; (ii) research objectives and questions were set; (iii) instruments for collecting primary data were created. The main objective of this paper is to determine the impact of the Covid-19 pandemic on e-commerce. Firstly, from a consumers point of view, who had to adapt to the new situation and start buying products and services online, and secondly, from the sellers' perspective, who had to quickly adapt to new business conditions and shift their focus from physical to online sales. The paper provides an insight into the results of primary data collected by quantitative descriptive research using questionnaires as a collection instrument. Research results show whether there has been a change in consumer buying habits during the pandemic, and what adjustment has been represented by the sellers to meet volatile consumers needs during the pandemic.

KEY WORDS: Covid-19 pandemic, e-commerce, business model, consumers, sellers, online sales

1. INTRODUCTION

It is well known that the world is shaken by a crisis caused by the Covid-19 pandemic. Given the dramatic and exponential spread of the SARS-CoV-2 virus, many countries have introduced strong restrictive measures and closures. Travel restrictions, the inability to leave domicile countries, work from home, the closure of educational institutions at all levels and social distancing are just some of the measures that countries around the world have used to curb the spread of this disease and allow economic activities to take place in the most painless way. Given that business activities are faced with disruptions that have a major impact on the conduct of business, there is a need to set clear guidelines on how to respond to such changes.

Traditional ways of doing business have undergone a transformation in recent years and are under the influence of digital technologies. Their importance is increasingly emphasized in pandemic conditions, where technologies enable constant connection and uninterrupted two-way communication, uninterrupted or partial conduct of business activities (NetComm Suisse & UNCTAD, 2020) and the continuation of economic activities in general. As organizations within different industries struggle with continuous disruptions caused by the Covid-19 pandemic, the emphasis is placed on adapting or completely changing their business models (Bilińska-Reformat & Dewalska-Opitek, 2021). The pandemic has created inevitable changes in the way goods and services are delivered, has created changes in work habits, and its impact is strongly reflected in common consumption patterns (Tchetchik et al., 2021; Beckers et al., 2021) that have suddenly succumbed to change.

Organizations across different industrial areas are focusing their efforts on creating online shopping platforms (GlobalData, 2021; Tran, 2021; Lobdell, 2020) since consumers, in order to reduce contagion and social contacts, focus on distance shopping (Beckers et al., 2021; Grabara, 2021). As a result, business processes are becoming more dynamic, so organizations are faced with the identification of critical tasks that will enable the smooth running of business (Wang,

Nguyen, et al., 2021). For example, the pandemic accelerated the process of adjusting real estate retail (Nanda et al., 2021), dramatically affects the environment of transport and distribution activities (Li, 2020) and influence the creation of the online offer (NetComm Suisse & UNCTAD, 2020) of essential products such as food (Dannenberg et al., 2020; Gao et al., 2020), baby products (Chehal et al., 2021), health products and protective equipment (Addo et al., 2020), cosmetics, educational facilities, clothing (Bilińska-Reformat & Dewalska-Opitek, 2021; Topolko Herceg, 2021) and similar products. In doing so, a strong emphasis was placed on the fast and free delivery (Wang, Nguyen, et al., 2021) of products and services.

The retail sector is certainly one of the most affected by the Covid-19 pandemic (Beckers et al., 2021). The processes of transition from physical to e-commerce required a deep revision of the business processes and activities of organizations operating in the said industry. The closures faced by the countries affected the normal course of retail activities, which consequently led to a decrease in sales of non-food products (Chang & Meyerhoefer, 2021) in the Euro area by 23.8% (in April 2020) compared to the same period a year earlier (Beckers et al., 2021).

1.1. E-commerce in Croatia

When analyzing situation in Croatia a few years ago, its membership in the European Union (EU) has contributed to recognizing the importance of participating in European supply chains (Bentyn et al., 2020; Kurnoga & Slišković, 2017). Such a situation has led to the use of advanced simulation techniques in logistics thus creating a precondition for the growth of e-commerce (Bentyn et al., 2020). In previous years, e-commerce in Croatia offered a small range of products and services online, while consumers were mostly proponents of the traditional way of shopping due to distrust of online payments and fear of providing personal data during online shopping (Kurnoga & Slišković, 2017). The research (Kurnoga & Slišković, 2017) showed that Croatia was ranked among the less developed countries in terms of internet use and online shopping compared to other 28 EU member states in 2016, while in the category of post-transition EU countries (11 observed members) was classified as developed country (the authors use three clusters in the analysis: most developed, developed and less developed countries). The results of a survey conducted in 2016 (Pečenec & Zoroja, 2018) show that consumers before the pandemic mostly bought online clothes and shoes (62%), while the least food and nutrition (4%). In the period before the pandemic, the growth rate of e-commerce in Croatia was 18% (according to data from 2017), the number of online consumers was 1.75 million, apropos 60% of internet users were e-users (Bentyn et al., 2020).

A survey conducted in 2007 (Bezić et al., 2009) shows that Croatian micro, small and medium enterprises were not inclined to apply information and communication technology in everyday business. This situation was a consequence of the unrecognized importance of technology and non-participation of sellers in the global market, and small advances in e-commerce were noticed a decade later. A 2018 survey (Zoroja et al., 2020) shows that Croatia is ranked in cluster 3 at EU level (out of a total of 4, where cluster 4 shows the leading countries in the field of e-commerce). The authors (Zoroja et al., 2020) observed seven variables related to enterprise turnover from e-commerce and web sales with different clients (B2C, B2G, B2B). The results indicated the need to take advantage of more benefits from e-commerce in Croatia, but also the need to improve sellers business using information and communication technology. It is important to emphasize that the total turnover of companies from e-commerce (excluding the financial sector, with 10 or more employees) in 2018 in Croatia amounted to 12% (Zoroja et al., 2020). Furthermore, the survey (Sadowski et al., 2021) conducted in 34 European countries in the period from 2010 to 2019 shows a low level of e-retail potential in Croatia.

With the appearance of the pandemic, purchasing priorities in Croatia have changed, and e-commerce has risen dramatically (Mitreva & Arsova, 2021; Nistor, 2021). The biggest jump in demand growth was recorded in the food and beverage categories, with consumers most often buying clothing, footwear, accessories, toys and equipment for children (Topolko Herceg, 2021). A survey conducted in April 2020 (Topolko Herceg, 2021) shows that during the pandemic, 60.7% of respondents shop online (results on a sample of 140 respondents). The importance of e-commerce in pandemic conditions is also shown by the research (Stamać Ožanić & Starman Frančić, 2021) on a sample of 500 respondents conducted in 2020. The results show that 80% of respondents made purchases online, with consumers mostly buying clothes and footwear, followed by cosmetics, food, hygiene products and furniture (Stamać Ožanić & Starman Frančić, 2021).

Given the closures and new measures aimed at reducing the spread of the SARS-CoV-2 virus, it is not surprising the sudden increase in online purchases in Croatia but also an increase in the delivery of products to the doorstep. It can be concluded that online supply and purchase increased significantly during the pandemic and that e-commerce will become increasingly important (Topolko Herceg, 2021) in disruptive conditions affecting the adaptation of business models on the sellers side, but also changes in consumer behavior. Given the uncertainty of the pandemic and the not negligible consequences it entails, the untapped potential of e-commerce and related activities will certainly gain in importance in the coming period, while enabling the sustainability of a business.

1.2. Identification of a research potential

Considering the importance and extent of the impact of the Covid-19 pandemic on the retail sector, it was selected as the subject of this study. The goal of the research is twofold. First, the research seeks to determine the impact of the Covid-19 pandemic on e-commerce from a consumer perspective. Given the comprehensiveness of the research and the link between consumers and sellers, the impact of the pandemic is being explored from the perspective of sellers as well. In order to achieve the research goal, the paper defines six research questions that are set according to secondary data research and are relevant to the research topic according to the authors' opinion.

The paper is structured as follows. After the introductory part, a literature review is given to see the dual impact of the Covid-19 pandemic: on one hand its impact on consumer behavior, and on the other hand, the impact on changes in delivery models of goods and services on the seller side. The theoretical background also shows the situation on the Croatian market before, during and after Covid-19 pandemic. Based on the literature review, the research questions that needed to be answered by conducted research were determined. After setting the theoretical framework, the research methodology was emphasized. According to the set methodology, the results of the research are presented from the perspective of consumers and from the sellers point of view, with a focus on e-commerce. Consequently, research limitations and future work are stated, while at the very end research implications and conclusions are defined.

2. THEORETICAL FOUNDATIONS

The impact of the Covid-19 pandemic on consumer behavior and sellers business was examined in accordance with the set research goal. In order to analyze the scope of the pandemic and determine the current state of retail activities under the effects of the pandemic, desk research of the scientific literature was conducted. For this paper, a research query was set with the following characteristics and limitations: "e-commerce" and "covid", where search was limited to title, abstract and keywords. Given the time occurrence of the pandemic, publication time is limited to the period from 2020 to the present, and the search is limited to articles, conference papers, and book chapters as document types. The research query was searched in the Scopus database, Web of Science (WoS) platform, ScienceDirect e-journal collection, publisher of academic journals and books Emerald Insight, and in Google Scholar. Research results indicate the popularity of the research topic, and the representation of the number of papers by the individual source is shown in Table 1.

Table 1. Research query and article selection criteria

	Source				
	Scopus	WoS	ScienceDirect	Emerald Insight	Google Scholar
Research query	Number of papers per query				
<i>"e-commerce" AND „covid"</i>	280	187	33	39	1200
	Criteria of selection				
≥ 10 citations	17	6			
* relevance			9	5	6
Total	43 selected papers				

Source: Conducted research

In addition to the representation of papers by individual sources, Table 1 shows the papers selection method in the research. Given the number of obtained results, as an additional selection criterion in Scopus and WoS, the citation of papers was chosen. In the remaining sources, the selection of papers was based on the criterion of relevance and opinion of the author on the suitability of each paper to the research topic. Consequently, a literature review was conducted on 43 selected papers (with minor inclusion of sources from websites). Based on a review of the literature, the following is an overview of key topics of the impact of the Covid-19 pandemic on e-commerce.

As mentioned earlier, the Covid-19 pandemic has prompted national governments to impose strict isolation, social distancing and temporary lockdown measures. Such sudden closures around the world have caused changes in consumer behavior (Chehal et al., 2021; Deloitte, 2020), but it also affected the adjustment of the way the seller usually sold and distributed goods. Travel restrictions prevented consumers from buying products or services unhindered (Beckers et al.,

2021), leading to an increase in online purchases of certain goods (Addo et al., 2020; Davis et al., 2021). Accordingly, consumers had to focus their shopping habits on e-commerce (NetComm Suisse & UNCTAD, 2020) as such a way of buying posed a lower risk of infection (or temporarily the only available way of buying), while sellers had to react quickly and change their current business models which were no longer viable in the conditions of the Covid-19 pandemic (Bilińska-Reformat & Dewalska-Opitek, 2021). Given the changes in business practices caused by the pandemic, consumers expect the delivery of products and services to the doorstep, as soon as possible and with low delivery costs, while sellers are facing a sharp increase in activities aimed at delivering products and services (Viu-Roig & Alvarez-Palau, 2020; Baker et al., 2020; Srivatsa Srinivas & Marathe, 2021; Wang, Dang, et al., 2021).

„E-commerce enhanced well-being of consumers with its compelling advantages including lower cost structure, greater flexibility, broader scale and scale of services, greater transparency and faster transactions (Hao et al., 2020)“. Various industries have relocated their businesses to virtual environments (Viu-Roig & Alvarez-Palau, 2020; Cheba et al., 2021), and emphasis has been placed on changes in consumption patterns caused by the pandemic (Beckers et al., 2021). Thus, for example, the purchase and consumption of food experienced a reversal (Chang & Meyerhoefer, 2021; Dannenberg et al., 2020; Topolko Herceg, 2021). Retail stores have moved their sales to the internet (Tran, 2021), consumption outside the home has moved to consume food at home (Deloitte, 2020) and fast home delivery (Wang, Nguyen, et al., 2021; Viu-Roig & Alvarez-Palau, 2020; NetComm Suisse & UNCTAD, 2020) has been the most important element in the context of e-commerce (Cavallo et al., 2020).

The pandemic has driven an increase in demand for e-commerce (Guthrie et al., 2021; Bajdor, 2021; Kawasaki et al., 2022), and e-commerce and various online services have gained thousands of new users and subscribers to services (GlobalData, 2021; Accenture, 2020). Due to limited interaction, travel bans and the closure of physical stores (Addo et al., 2020), consumers bought online at least once a week which led to an increase in sales at online retailers. The propensity for more frequent online shopping is more pronounced among the younger generation (Jaishu, 2020), however, the percentage of middle-aged consumers does not lag far behind the younger population (Koch et al., 2020; Naseri & Al, 2021). Such a market situation has affected changes in the strategic activities of retailers and the inevitable changes in business models (Bilińska-Reformat & Dewalska-Opitek, 2021), where it is important to emphasize that consumers in different age groups perceive risks differently when buying online (Makhitha & Ngoben, 2021) which further affects the buying process.

Great importance in adapting business processes to the new pandemic situation has been placed on digital technologies (Dannenberg et al., 2020; Al-Khalidi, 2021; Runfola et al., 2021; Kim, 2020). They allow, for example, instant availability of products from different sellers, where sellers, among other things, can achieve lower operating costs (Nanda et al., 2021; Sun et al., 2021). In the conditions of the Covid-19 pandemic, consumers are focused on buying larger quantities of products (Tran, 2021) in order to reduce contacts with other consumers and contribute to slowing down the transmission of the virus (Chang & Meyerhoefer, 2021). Buying out of fear given the appearance of a pandemic and a possible shortage of supply of products and services is considered a panic purchase and affects the home stockpiling (Addo et al., 2020; Baker et al., 2020).

Given online consumption patterns, consumer protection in the online environment is becoming increasingly important (D'Adamo et al., 2021). Uncertainty during online shopping (e.g. inability to physically inspect products (Topolko Herceg, 2021), online security, reliability of online transactions (Dannenberg et al., 2020), sharing of personal data, protection of privacy, etc.) in the conditions of a pandemic it took on a different meaning. Due to skepticism, consumers focus on reading and writing reviews about the product they intend to buy or the service they have consumed (Tran, 2021; Topolko Herceg, 2021), with increasing emphasis on the protection of personal and transactional data (D'Adamo et al., 2021; Deloitte, 2020; Tran, 2021).

The competitiveness of the market offer in today's pandemic conditions will certainly depend on national strategic decisions (M.-H. Kim et al., 2020; Palau-Saumell et al., 2021), investments in digital capabilities of organizations (GlobalData, 2021), flexible and sustainable business models (Bilińska-Reformat & Dewalska-Opitek, 2021; Lin et al., 2020; Gu & Wang, 2020; Koscinski, 2020; Patma et al., 2020), agile performance in times of crisis (Frare & Beuren, 2021; Thilmany et al., 2021; Sodhi & Tang, 2021), strengthening e-commerce and comprehensive online product and service offerings. As retail is in transition, they face the opportunity of growth and expansion in domestic and international markets (NetComm Suisse & UNCTAD, 2020; Al-Khalidi, 2021).

3. RESEARCH

3.1. Research methodology

The problem this research focuses on is the impact of the Covid-19 pandemic on e-commerce. The impact of the pandemic on online sales is being investigated by consumers and sellers points of view, i.e. the research seeks to find out how consumers had to adapt to the new reality and how sellers responded to new conditions and needs of consumers who could not buy in physical stores during lockdown time.

Conducted desk research for the purpose of collecting relevant secondary data sources, enabled the development of a theoretical framework, as well as creation of research instruments for the collection of primary data sources by consumers and sellers. In order to collect primary data from consumers, a quantitative, descriptive research was conducted using a questionnaire created in LimeSurvey and shared on social media. According to that, the consumer sample is based on nonprobability sampling, a “snowballing” sample. The questionnaire was conducted in Croatia, in July 2021. A total of 299 respondents approached the questionnaire, but only 105 respondents fully answered all the questions and their answers were subjected to statistical analysis, which is presented below. Regarding the research conducted on sellers, quantitative, descriptive research was also conducted using a questionnaire as an instrument for collecting primary data. The questionnaire was created in LimeSurvey and was sent to the e-mail addresses of the administration. The e-mail was addressed to sales managers, so it was a nonprobability sample, a sample of experts. The questionnaire was sent to Croatian sellers in three waves, from May to July 2021. 43 experts accessed the questionnaire, but only 10 of them answered all the questions in the questionnaire and their answers were subjected to statistical analysis in the SPSS.

3.2. Research questions setting

Given the number of studies related to the Covid-19 pandemic and its impact on people in all areas of life, including the purchase and sale of products and services, this topic is the basis for further research steps. Based on the analyzed papers, research goals and questions were set, as well as questions in the questionnaire, which represents a primary data collection instrument. The representation of research questions by the individual source is shown below, in Table 2.

Table 2. Research questions setting based on literature review

Observed group	Research questions	Source
Consumers	RQ1	(Topolko Herceg, 2021; Hao et al., 2020; Gao et al., 2020; Davis et al., 2021; Dannenberg et al., 2020; Chang & Meyerhoefer, 2021; Bajdor, 2021; Wang, Dang, et al., 2021; Tran, 2021; Wang, Nguyen, et al., 2021)
	RQ2	(NetComm Suisse & UNCTAD, 2020; Tchetchik et al., 2021; Baker et al., 2020)
	RQ3	(Koch et al., 2020; Naseri & Al, 2021; Jaishu, 2020; Makhitha & Ngobeni, 2021)
Sellers	RQ4	(Lobdell, 2020; Koscinski, 2020; Nanda et al., 2021; Tran, 2021)
	RQ5	(GlobalData, 2021; Accenture, 2020, Cavallo et al., 2020)
	RQ6	(Deloitte, 2020; Kawasaki et al., 2022; Gu & Wang, 2020; Viu-Roig & Alvarez-Palau, 2020; Topolko Herceg, 2021; Thilmany et al., 2021; Cavallo et al., 2020; Chehal et al., 2021; Dannenberg et al., 2020; Lin et al., 2020)

Source: Conducted research

Table 2 shows the setting of research questions based on the conducted analysis of the existing literature. For the sake of comprehensiveness of the research, the research questions are divided into those related to consumers and those related to sellers. For each research question, a set of sources is presented above, as a basis for their creation. Based on the literature review, the following research questions were set:

Consumers

- **Research question 1 (RQ1):** What is the effect of the Covid-19 pandemic on the frequency of product purchases online compared to the period before the pandemic in Croatia?
- **Research question 2 (RQ2):** How did the Covid-19 pandemic affect the amount of money spent on an individual online purchase compared to the purchase before the pandemic in Croatia?
- **Research question 3 (RQ3):** Is there a significant difference in making an online purchase for the first time during the Covid-19 pandemic with respect to the age of the respondents in Croatia?

Sellers

- **Research question 4 (RQ4):** Whether the Covid-19 pandemic caused a significant increase in the number of new online sales systems with respect to store categories on Croatian market?
- **Research question 5 (RQ5):** Is there a significant difference in the increase in online product sales during a pandemic on the seller side on Croatian market?
- **Research question 6 (RQ6):** Did the Covid-19 pandemic caused the sale of products for which there was previously no interest in buying online on Croatian market?

3.3. Impact of the Covid-19 pandemic on online sales from a consumer perspective - display of results

As the questionnaire contained questions related to the demographic characteristics of the respondents, they are shown in Table 3. If the results of the respondents are observed according to demographic characteristics, potential limitations of the research conducted on consumers can be identified. First, a potentially too small sample to be able to draw relevant conclusions for the whole population, and then a distribution of the respondents themselves that does not allow for representative conclusions to be drawn based on the inequality of the variables represented. The distribution shows that the sample is dominated by female respondents (69.52%), aged 15 to 24 (63.81%), with a college degree (54.42%), and mostly from the group of students if the working status of the respondents is observed. Nevertheless, the research and the obtained results can certainly be a good foundation for future research.

Table 3. Demographic characteristics of consumers

Demographic features	Variables	Number of respondents	Percentage (%)
Gender of respondents	Male	32	30,48
	Female	73	69,52
Age of respondents	15-24	67	63,81
	25-34	27	25,71
	35-44	4	7,62
	45-54	1	0,95
	55-64	4	7,62
	More than 65	4	1,90
Education degree	Unfinished primary school	0	0
	Completed primary school	0	0
	Completed two-year or three-year high school	2	1,90
	Completed a four-year high school	36	34,29
	Completed college	54	54,42
	Completed master's degree	12	11,43
Employment status	Completed doctorate	1	0,95
	Student	55	52,38
	Employed	46	43,81
	Housewife	0	0
	Unemployed	2	1,90
	Retired	1	0,95
	Other	1	27

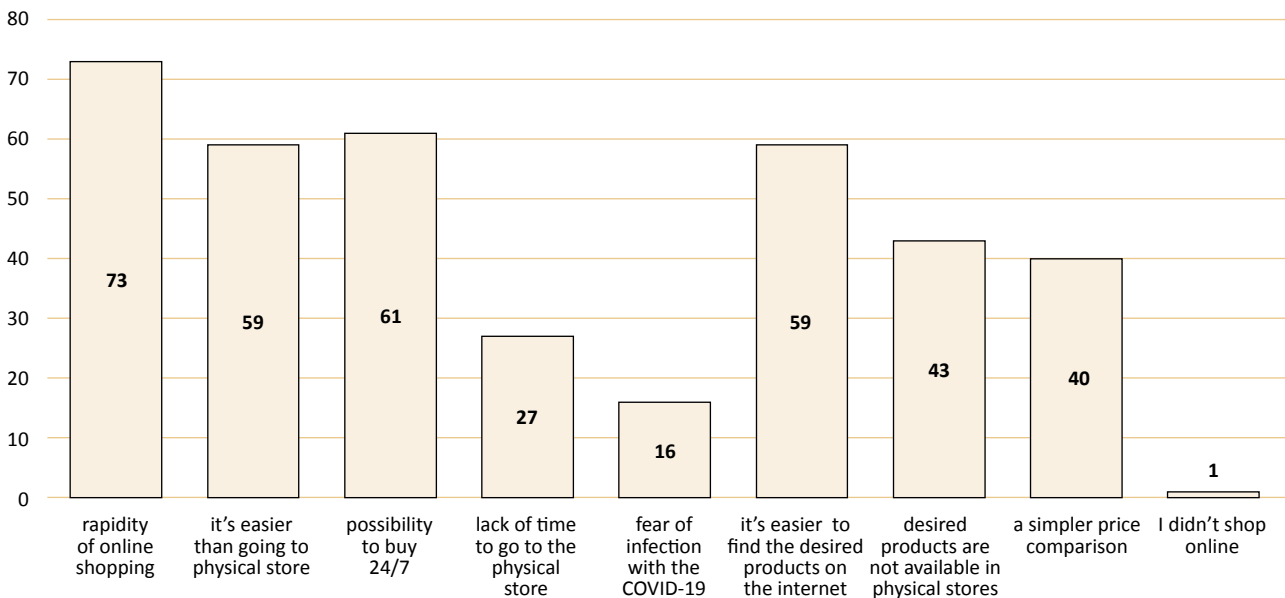
Source: Conducted research

When respondents were asked if they ever bought the product online, 99.05% of them (104 out of 105) answered that they bought the product online. According to the results, 40.95% of respondents often buy products online. The same distribution of respondents sometimes buys products online, while 10.48% rarely buys products online, 6.67% very often, and 0.95% never buys products online. 81.90% of respondents started buying products online before the Covid-19 pandemic, and 17.14% of them during the pandemic, while 0.95% of respondents never bought products online. Based on this issue, changes in the habits of consumers who were forced to start shopping online due to the inability to shop in physical stores can be identified. The results show that respondents were more likely to search products online during the pandemic. Before the pandemic, respondents searched products online on average several times a year, while during the pandemic they searched products online on average several times a month.

When it comes to buying products online, average ratings also show how buying products online increased during the pandemic. Thus, on average, before the pandemic, respondents bought products online several times a year (mean score 2.23). According to the results from the questionnaire, they bought products several times a year during the

pandemic, but with a slightly higher average score of 2.52. Respondents most often buy clothes, shoes and fashion accessories online (89 respondents), followed by electronic devices (36 respondents) and cosmetics (35 respondents). However, respondents also buy jewelry and watches (25 respondents), tools (17 respondents), books (17 respondents), furniture (12 respondents) and food products (7 respondents) online. When analyze what respondents first bought online during the pandemic, and previously bought exclusively the same product categories in physical stores, then these are the categories: clothing, footwear and fashion accessories (29 respondents), cosmetics (26 respondents), food products (14 respondents) and electronic devices (13 respondents).

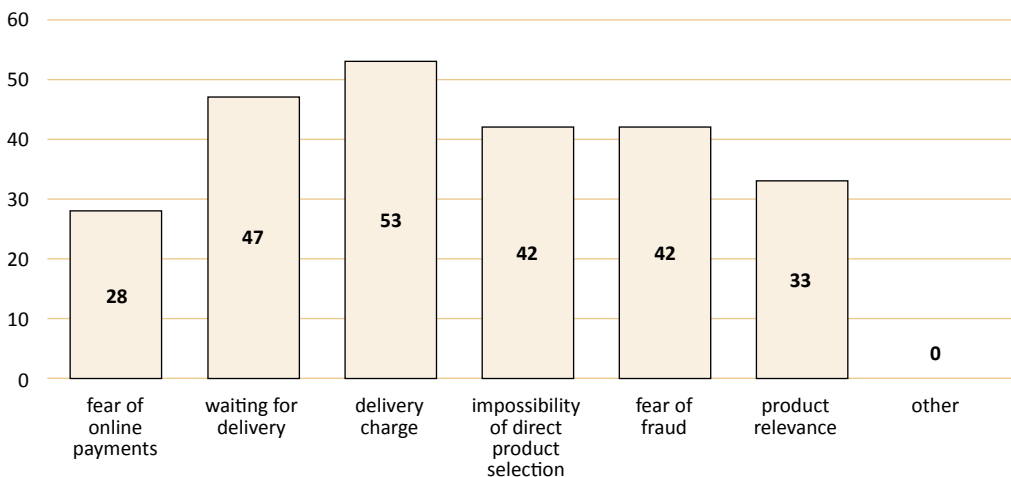
Picture 1. Reasons for online shopping



Source: Conducted research

When respondents were asked what was the reason for their online purchase (Picture 1), most respondents, 73 (69.52%), chose the rapidity of online shopping as the primary reason. After rapidity, 61 respondents (58.10%) chose the option to buy the product at any time (24/7), as the next reason to shop online. Easier to find the desired products on the Internet and a simpler way to buy than going to a physical store, are the next two reasons chosen by 59 respondents (56.19%). Another important reason for buying online is the fact that desired products are not available in physical stores - 43 respondents (40.95%) stated this reason. The lack of time to go to a physical store was chosen by 27 respondents, while only 16 respondents cited fear of being infected with the SARS-CoV-2 virus as a reason for online shopping. According to the results, it can be seen that consumers do not worry about being infected, but online shopping is simply more convenient and faster than physical shopping.

Picture 2. Reasons to prefer shopping in physical stores



Source: Conducted research

Looking at the results of why consumers prefer to buy products in physical stores, from Picture 2 it can be seen that the largest number of respondents, 53 (50.48%) of them prefer to buy certain products in physical stores to avoid charging for product delivery during an online purchase. The next reason is waiting for delivery, which was cited by 47 respondents (44.76%). 42 respondents or 40% of them chose the impossibility of direct product selection and fear of fraud as reasons to prefer shopping in physical stores. 33 respondents (31.43%) cited product relevance as a reason for physical purchase, and 28 respondents (26.67%) chose fear of online payment. According to these data, it is clear that the biggest complaint of online shopping is charging and waiting for product delivery. The inability to make an immediate selection is also an important reason that can be related to the relevance of the product. The more expensive the product is, the more consumers will want to see it live and perhaps try it out before buying. The fear of fraud and the fear of online payment significantly influence the purchase decision because a consumer, who cannot trust the seller, will most likely not buy the product online.

Using the Likert scale, the degree of agreement of the respondents with the statements related to online shopping was assessed. The degree of agreement is defined as follows: (1) Strongly Disagree; (2) Disagree; (3) Undecided; (4) Agree; (5) Strongly Agree; (9) I don't know / I don't want to answer. Table 4 shows that respondents, on average, agree the most with the statement that online shopping saves time (4.47). On average, respondents agree with the following statements: "Products ordered online are of the same quality as products purchased in a physical store" (4.27), "Products purchased online are delivered within the scheduled delivery time (4.20)", "The products I order online arrive completely correct and undamaged and meet my expectations" (4.20), "I am satisfied with the range of products offered in online stores" (4.17) and "The biggest disadvantages of online shopping are related to waiting for delivery and the inability to physically inspect/test the product" (4.14). On average, they least agree with the statement "During a pandemic, I buy products more often online compared to the period before the pandemic" (3.16). Therefore, as with the previous results, it can be concluded that the respondents bought more online during the pandemic, but that this increase may not be to the extent that was assumed and expected.

Table 4. The degree to which consumers agree with defined statements related to online sales

Statements	Level of agreement						Average
	1	2	3	4	5	9	
During a pandemic, I buy products more often online compared to the period before the pandemic.	20	13	32	16	18	6	3.16
I am satisfied with the range of products offered in online stores.	2	6	13	41	37	6	4.17
Online shopping is just as satisfying as shopping in physical stores.	7	8	27	32	26	5	3.73
Products purchased online are delivered within the scheduled delivery time.	3	2	18	35	42	5	4.20
The products I order online arrive completely correct and undamaged and meet my expectations.	1	3	18	41	36	6	4.20
The biggest disadvantages of online shopping are related to waiting for delivery and the inability to physically inspect/test the product.	2	3	24	30	41	5	4.14
Sometimes I give up on online shopping because I need to pay a larger amount of money for the desired product.	9	8	36	26	21	5	3.54
Buying products online is cheaper than buying in physical stores.	3	6	25	35	32	4	3.94
Products ordered online are of the same quality as products purchased in a physical store.	0	1	24	33	40	7	4.27
Shopping online saves time.	3	4	9	24	55	10	4.47

Source: Conducted research

Research results show that 91 respondents (86.67%) will continue to shop online and after the pandemic, three of them (2.86%) stated that they would not buy products online, while 11 (10.48%) respondents may continue to shop online and after a pandemic. The same distribution is evident in the question of whether respondents would recommend online shopping to friends and family. Those respondents who intend to continue shopping online would recommend online shopping to friends, while consumers who will not continue shopping online do not even want to recommend this form of shopping. Consumers, who may continue to shop online, are not sure if they would recommend online shopping to friends, so it can be concluded that they had negative experiences with online shopping in addition to the positive ones.

3.4. Impact of the Covid-19 pandemic on online sales from a seller perspective - display of results

In a sample of a total of ten sellers who fully answered all questions in the questionnaire, four of them fall into the category of clothing, footwear and fashion accessories, four into the category of furniture, kitchens, rooms and household accessories, and two of them are from the category of supermarkets or hypermarkets. Representatives of other categories did not participate in this research, which may be a limitation of the research conducted on sellers. When they were asked at what time they established online sales, five organizations in the sample answered that they started selling online before the pandemic, three organizations started selling their products during the pandemic, while two organizations do not sell products online. When asked how the pandemic affected sales, three experts said that there was an increase in sales for their organization, six of them said that there was a decrease in sales for their organization, while one expert did not want to comment or did not know what happened to the sale during the Covid-19 pandemic. When looking at the categories of products that consumers started buying online during the pandemic, then from the perspective of sellers these are most often: clothing, footwear and fashion accessories (4 answers), cosmetics (3 answers), food products (3 answers), furniture (3 answers), electronic devices (2 answers), etc.

When observing the importance of certain measures to reduce costs and survival of the organization during pandemic, according to the results in Table 5, it can be seen that the statement "Changing marketing strategy and targeted advertising to consumers through digital channels" received the highest average score (4.5) and it is extremely important for the respondents. Furthermore, for sellers it is important to support the health care system and adhere to the adopted measures (4.4), as is adding new digital sales channels (4.3) and establishing a loyalty program for consumers (3.9). Laying off part or a large number of employees to reduce costs on average is an unimportant measure to them (1.6). The degree of importance, shown in Table 5, is defined as follows: (1) Unimportant; (2) Slightly Important; (3) Moderately Important; (4) Important; (5) Very Important.

Table 5. The importance of measures to reduce costs and the survival of the organization during pandemic

Statements	1	2	3	4	5	Average
Laying off part or a large number of employees to reduce costs.	5	4	1	0	0	1.6
Providing support to the health system and adhering to the adopted measures.	0	0	2	2	6	4.4
Adding new digital sales channels.	0	0	1	5	4	4.3
Changing marketing strategy and targeted advertising to consumers through digital channels.	0	0	0	5	5	4.5
Establish a loyalty program for consumers.	0	0	2	7	1	3.9

Source: Conducted research

According to Table 6 and experts' opinions, organizations on average performed best in the area of consumer support and after-sales activities (average score 4.0), as well as in the use of digital marketing channels (3.9) and product availability and timely delivery (3.9). Consumer trust in the organization gained the weakest result (3.2). The degree of adaptation from Table 6 is defined as follows: (1) Extremely weak; (2) Weak; (3) Average; (4) Strong; (5) Extremely strong.

Table 6. Adaptation of sellers during a pandemic in certain areas

Statements	1	2	3	4	5	Average
Demand for your products.	0	0	6	4	0	3.4
Consumer trust in the organization.	0	1	6	3	0	3.2
Use of digital marketing channels.	0	0	2	7	1	3.9
Product availability and timely delivery.	0	1	4	0	5	3.9
Consumer support and after-sales activities.	0	0	3	4	3	4.0

Source: Conducted research

Table 7 shows the answers to the statements related to the attitudes of experts towards online shopping and their understanding of consumers. According to expert responses, potential consumers (on average) searched products on the website more often (mean rating 4.5) and bought them more often during the pandemic. They agree that consumers prefer to make purchases in physical stores (average 4.2) and that they have a fear that products purchased online will not be of the same quality as those purchased at a physical store. The degree of agreement from Table 7 is defined as follows: (1) Strongly Disagree; (2) Disagree; (3) Undecided; (4) Agree; (5) Strongly Agree; (9) I don't know / I don't want to answer.

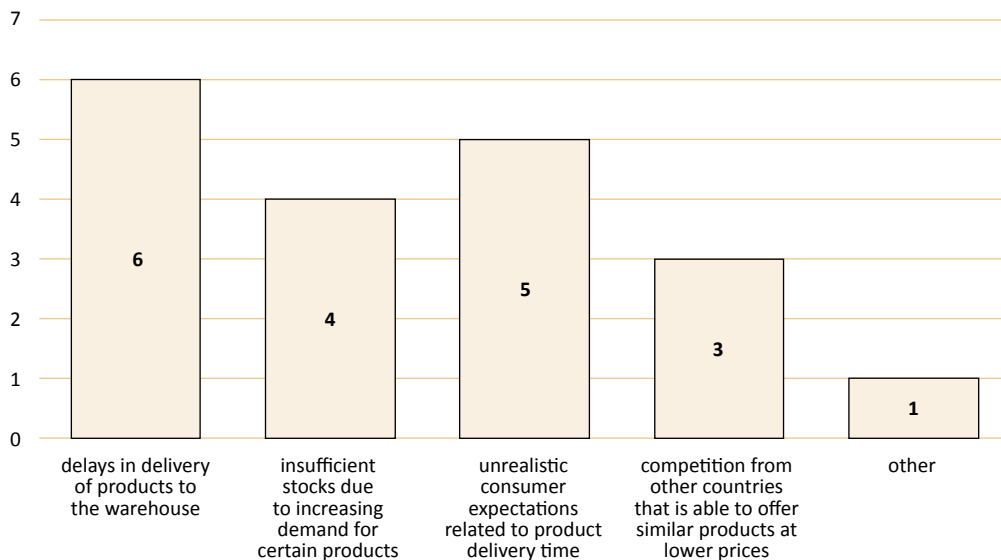
Table 7. The degree of agreement of experts with statements related to online sales

Statements	Level of agreement						Average
	1	2	3	4	5	9	
During the Covid-19 pandemic, potential consumers searched more frequently for products on our store's website.	1	0	1	3	4	1	4.5
After searching for the product on the website, consumers bought the product being searched.	0	0	5	3	0	2	3.4
The store's website is clear and easy to use.	0	1	1	2	4	2	4.1
Consumers prefer to make purchases in physical stores.	0	1	3	3	2	1	4.2
Consumers do not have confidence in buying products online.	1	0	5	3	0	1	3.7
Consumers fear that products purchased online will not be of the same quality as those purchased at a physical store.	0	2	2	2	3	1	4.2
Consumers during the Covid-19 pandemic have unrealistic expectations regarding product prices and feel that they are too expensive.	0	3	1	2	3	1	4.1

Source: Conducted research

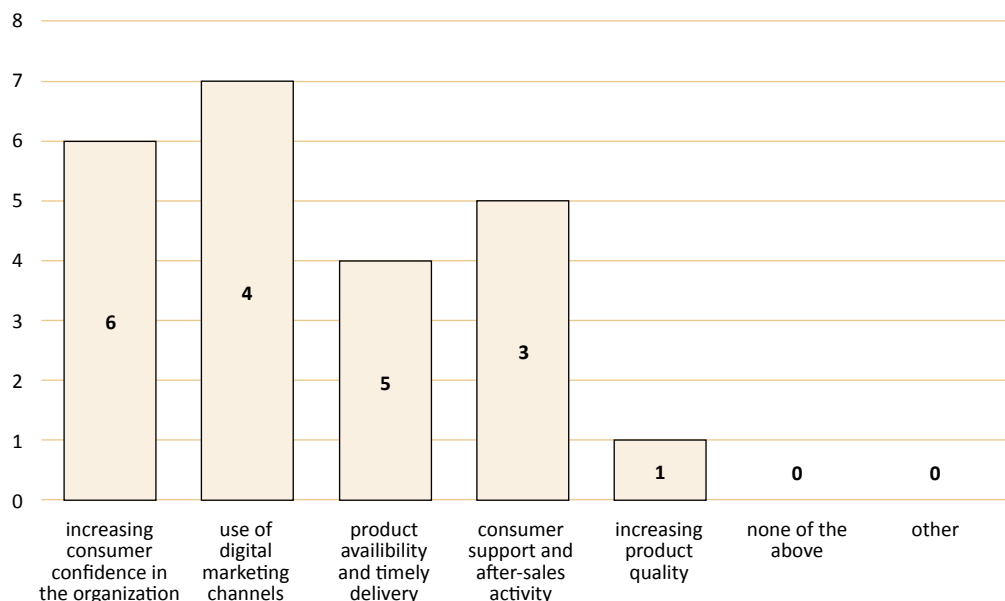
From the perspective of experts, the biggest problems related to online sales that organizations face during the pandemic (shown in Picture 3) are delays in product delivery to the warehouse (6 responses), unrealistic consumer expectations related to product delivery time (5 responses), insufficient stocks due to increasing demand for certain products (4 responses) and competition from other countries that is able to offer similar products at lower prices (2 responses). One expert highlighted the limitations of the number of consumers in the physical store as the biggest problem in the category other, and it is necessary to emphasize that his store does not sell products online. In accordance with the above, it is evident that Croatian organizations, which offer their products physically and online, face various problems but still try to better meet the needs of consumers who will therefore continue to shop in their stores.

Picture 3. The biggest problems sellers face during the pandemic



Source: Conducted research

When asked in which areas organizations will invest the most after the end of the Covid-19 pandemic to become more competitive in the market, the sample experts stated that they would invest in the use of digital marketing channels to attract and retain consumers (7 respondents). Six of them will invest in increasing consumer confidence in the organization itself, while five pointed out that they will invest in better consumer support and after-sales activities. Four of them plan to invest in increasing product availability and timely delivery, while one respondent highlighted investing in increasing the quality of their products. Based on this data, it can be seen that most organizations (sellers) will invest in attracting and retaining consumers through increasing trust and using digital channels to make it easier for consumers to decide to buy online (visible in Picture 4).

Picture 4. Plan of investments after the end of the Covid-19 pandemic to make sellers more competitive in the market

Source: Conducted research

The last research question in the set of questions related to sellers referred to the topic of consumer buying habits after the end of the pandemic, and according to the independent assessment of sellers. Seven of them responded that they believe most consumers will continue to buy products online after the end of the pandemic, while three of them could not say what would happen. Important to point out is the fact that none of the experts in the sample stated that they believe consumers will not continue to shop online after the end of the pandemic, so they still see a future in online shopping, which can certainly be an incentive for sellers to continue developing their own e-commerce.

3.5. Research conclusions

According to the obtained results, the main conclusions of conducted research, both on consumers and sellers, with a focus on research questions are as follows. The Covid-19 pandemic has a positive impact on the frequency of product purchases online compared to the period before the pandemic in Croatia. Results of research conducted on consumers show that during a pandemic they made their purchases online much more often than they did before, which is also confirmed by the average grades given to the key statements of conducted research. Furthermore, the Covid-19 pandemic positively affects the amount of money spent on an individual online purchase compared to the purchase before the pandemic. Consumers expressed that their spending and consumption during the pandemic, when it came to online shopping, was significantly higher than before the pandemic. Based on given data, authors can conclude that there is a significant difference in making an online purchase for the first time during the Covid-19 pandemic with respect to the age of respondents. This can imply that age, not only in general but also during a pandemic, has a big influence on online purchasing decision making. Perhaps because of the small sample of sellers, authors could not draw a concrete conclusion whether the Covid-19 pandemic caused a significant increase in the number of new online sales systems with respect to store categories on Croatian market. However, current results show that pandemic did not increase the number of new online sales systems. Based on that, it can be concluded that variables store category and establishment of an online sales system during a pandemic are independent. From the results of the research question "Is there a significant difference in the increase in online product sales during a pandemic on the seller side on Croatian market?", it is evident that the variables of pandemic occurrence and increase in online sales are mutually independent and there is no difference between the level of online sales before and during the pandemic. Such results can be explained by the fact that consumers during Covid-19 pandemic buy products more often in foreign online stores, as well as a small sample of stores (sellers) represented in the study. Research results show that the Covid-19 pandemic did not cause the sale of products for which there was previously no interest in buying online on the Croatian market. Such a situation can be explained by the fact that before the pandemic consumers bought products online that sellers identified as sold for the first time during the Covid-19 pandemic. In addition, the reason for this result can be a small sample of sellers.

4. RESEARCH LIMITATIONS AND FUTURE WORK

The main limitations of the conducted research are visible primarily from the sample itself. For both questionnaires, the limitation is a small number of respondents, so the relevance of the sample and its mapping to the entire population of consumers or sellers is questionable. On the consumer side, the distribution of respondents with regard to the observed demographic characteristics (gender, age, level of education and employment status) can be considered as a research limitation. On the seller side, in addition to the previously mentioned small sample, as a research limitation can be considered distribution of the sample according to the category of products they sell, since only three categories are represented in the sample: clothing, footwear and fashion accessories; furniture, kitchens, rooms and household accessories; and supermarkets or hypermarkets. This represents a limitation given that the research results would be better quality if there were more categories of stores distributed in approximately the same proportion. Furthermore, a limitation in both questionnaires may be the choice of instrument for collecting primary data, as well as the structure of questions in the measurement instrument. The questions were asked in a way that did not give respondents space to write down their own opinions based on which might gain a different insight into the problems and obstacles that sellers face in a competitive online environment, and on the other hand, to be identified problems that consumers face when coping in “new normal”.

For future research, it is necessary to take into account mentioned limitations and remove them if possible, in order to obtain results that are more representative and that give a better insight into current conditions. Firstly, future work will expand the research sample on the sellers side in order to determine the real consequences of the pandemic on their business and necessary adjustments. Afterwards, the consumer sample will be expanded and will include respondents of different demographic characteristics to obtain more complete results that can only then be generalized to the entire population.

5. RESEARCH IMPLICATIONS

The findings of this research can be relevant for the academic community, but also for the practical implications. They can be the basis for further upgrading of the research in the domain of impact of Covid-19 pandemic on consumer behavior but also in the domain of sellers adjustments in the unpredictable market conditions. Since a research approach includes both sides of the sales process (consumer-seller), research results can be used for a comprehensive analysis of pandemic consequences on habitual ways of buying and delivering goods and services. Consequently, the role of this article is unquestionable for the scientific community and for organizations that practice sales, in order to develop in the future and create or maintain their competitive advantages. In any case, both questionnaires can be useful for organizations operating in an online environment, providing them with insight into certain market adjustments with the purpose of satisfying consumers and achieving their own business success.

6. CONCLUSION

This paper provides insight into the theoretical framework of the impact of Covid-19 pandemic on online sales created based on the existing literature covered by conducted desk research. Collected secondary data sources, except for the theoretical framework, were the basis for defining research problems, setting research objectives, setting research questions and creating instruments for collecting primary data. The paper presents the results of quantitative descriptive research conducted on both consumers and sellers.

Based on research conducted on consumers, several important conclusions can be drawn. The first and most important relates to the frequency of online purchases during a pandemic compared to the period before, as research has shown that the pandemic has indeed “forced” consumers who used to shop online to do so more often, while consumers who have never bought online during a pandemic were forced to do so for the first time. Research results also showed that most respondents intend to buy products online even after the pandemic, so it can be concluded that the pandemic has accelerated the development of online shopping and there is certainly a need for it to continue to develop in the future.

The results of a questionnaire conducted on sellers show that most stores (organizations) in Croatia had already established systems for selling products online before the pandemic, so these stores were ready to increase online sales. Thus, organizations did not have to create an online sales system at once, but there was a need to improve existing business models, which is certainly simpler than creating a completely new one. The biggest problems faced by sellers during the pandemic were not the sale of products online, for which most were prepared, but delays in delivering

products to their warehouses and insufficient stocks because the pandemic caused an increase in demand for certain products. This in turn has further led to the inability to sell such products to consumers online. The research shows that sellers, as well as consumers, believe that after the pandemic, products will continue to be bought online, which will cause further development of organizations and the development of their business models.

Considering all the above mentioned research limitations, research results conducted on consumers and sellers show that online sales are becoming increasingly popular. On the one hand, they are adopted by many organizations, while on the other hand, they are beginning to be used by consumers of different demographic characteristics who see the many advantages of this way of selling. Therefore, it can be concluded that this form of sales will continue to develop in the future and could become equal to sales in physical stores.

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UTJECAJ PANDEMIJE COVID-19 NA ONLINE PRODAJU IZ PERSPEKTIVE HRVATSKIH POTROŠAČA I PRODAVAČA

SAŽETAK

Prodaja putem interneta danas je sve popularnija i postaje nezaobilazan dio ljudskih života. Proces prihvaćanja ovog oblika prodaje i njezin razvoj ubrzala je pandemija Covid-19 koja je uzrokovala zatvaranje fizičkih prodavaonica, stoga su ljudi bili primorani kupovati proizvode i koristiti usluge putem interneta. Provedeno istraživanje za stolom omogućilo je prikupljanje sekundarnih izvora podataka na temelju kojih je (i) kreiran teorijski okvir rada; (ii) su postavljeni istraživački ciljevi i pitanja; (iii) su kreirani instrumenti prikupljanja primarnih podataka. Glavni cilj ovog rada je utvrditi utjecaj pandemije Covid-19 na e-trgovinu. Prvo, sa stajališta potrošača koji su se morali prilagoditi novonastaloj situaciji i početi kupovati proizvode i usluge putem interneta, i drugo, iz perspektive prodavača koji su se morali brzo prilagoditi novim uvjetima poslovanja i preusmjeriti fokus s fizičke na online prodaju. Rad daje uvid u rezultate primarnih podataka prikupljenih kvantitativnim opisnim istraživanjima pomoću anketnih upitnika kao instrumenta prikupljanja. Rezultati provedenih istraživanja pokazuju utjecaj pandemije na moguće promjene u kupovnim navikama potrošača te kakvu su prilagodbu prodavači izvršili kako bi tijekom pandemije zadovoljili potrebe potrošača.

KLJUČNE RIJEČI: pandemija Covid-19, e-trgovina, poslovni model, potrošači, prodavači, online prodaja