ABSTRACT
The COVID-19 pandemic has a huge impact in different aspects of people's life and behaviour. It causes both health and economic problems worldwide by reducing companies' economic activity, increasing unemployment and reducing consumption. Also demand is depended on consumer's behaviour, which undoubtedly underwent changes caused with COVID-19 pandemic. Consumers are responding to the crisis in different ways; some of them feel anxious, others are worried and buying in panic, mainly the necessary products and some of them remain indifferent or suspicious despite the government and health professionals' recommendations.
To this date, due to the short period from the beginning of COVID-19 pandemic, a limited number of studies are available that focus on the consumer behaviour caused by the new virus. This paper attempts to notify changes of the consumer behaviour because of COVID-19 pandemic in Republic of North Macedonia. Being that the aim is more to get an overview, rather than explore in-depth this phenomenon, the survey method is used. Primary data is collected with administration of specially designed questioner. The relationship between multiple answers is quantitatively analysed with cross tabulation of the obtained data.
The findings could contribute in predicting future consumer behavior, which is significant for many businesses affected by the pandemic. While at the first blush COVID-19 pandemics imposed negative impact from the changed consumer behavior, in the concluding remarks of this paper there are clear indications for some possibilities and new business opportunities in fostering digital entrepreneurship for the present and future.

Key words: Consumer's behaviour, digital entrepreneurship, COVID-19 pandemic, Republic of North Macedonia

JEL Classification: D12

INTRODUCTION
The COVID-19 pandemic has caused not only a risk for the global human health, but also for the social and economic balance in each affected country. Consequently, declining travel, forced closure at home, and social distancing have caused supply and demand shocks (Muellbauer, 2020).
It is indisputable that COVID-19 pandemic causes wide-range effect in changing people’s behavior in general, but also in their behavior as consumers. Namely, as one of the greatest crisis for the humanity in the past 100 years, the pandemic with COVID-19 induced changes in consumer behavior. With prolonged presence of the pandemic, many countries experience that traditional shopping behavior is significantly disrupted and transformed. In addition, it is evident that the uncertainty is high, many businesses are closed, and there is a real concern about possible global recession. With these concerns, consumers are focusing rather on essential goods than other discretionary categories and leisure products. At the same time, with lockdown measures in place around the world, there has been a surge in the use of online buying channels (Capgemini, 2020).

It has been noted that in a period of economic instability, consumers are demonstrating transformation in their buying behavior, though how much of transformation experienced during the crisis will sustain is a question (Seema, Tanjul, & Neetu, 2020). The findings from a study on the impact of the current crisis generated by the COVID-19 Pandemic on consumer behavior, show that in the period since the launch of the COVID-19 pandemic, consumers in the US, UK and Germany mostly buy health and hygiene products, due to personal and family fears (Oana, 2020).

According to one research study, consumers adopt new habits and behaviours that many expect to continue in the long run. Their priorities are focused on the demand for hygiene, cleaning and other basic products. In times of crisis, the basic needs, personal and family health, food safety, financial security and safety become top priorities. Digital commerce is also boosting as consumers increasingly buy groceries and other products online, and this trend is projected to continue after the pandemic (Accenture, 2020).

In order to find out how and when consumers started showing behavioural changes, Nielsen conducted shopper behaviour research that started in the beginning of the pandemic in China and extended to other countries that have also been affected. They found that consumers are going through six stages of behaviour based on their awareness of the spread of COVID-19 in their environment: proactive health-minded buying (increased interest in the acquisition of products that maintain well-being or health), reactive health management (prioritization of products for infection containment), higher product purchases and increased store visits, preparation for quarantine living (increased online shopping, reduced store visits), limited living (possible price increase due to limited stocks), living at a new normal level (increased health awareness even when people return to their typical daily activities. This behaviour makes it possible to understand and anticipate consumer actions, which can help companies to manage supply chains.

From the beginning of COVID-19 pandemic, companies are also trying to counteract the current situation with new sales and service solutions, in order to secure at least the minimum level of business by changing their business models (Deloitte, 2020). The growing consumer demand for some products, together with social distancing and increased hygiene protocols, have put pressure on the traditional distribution networks, but in same time reliable and affordable broadband services have become crucial, since demand for online services and access to communication services has soared. Governments and businesses have taken actions to ensure affordable access to quality broadband services, yet the crisis has deepened the digital divide between consumers who have access to the Internet and digital literacy, and those who do not. This division is particularly evident between developed and developing countries, urban and rural areas, the rich and poor, and among the elderly and people with disabilities, for whom purchasing products online may not be an option. If not addressed, these issues will result in increased inequality (OECD, 2020).

In the period of COVID-19 pandemic, consumers are learning to improvise and learn new habits. Across the globe, they have responded to the crisis and its associated disruption to normal consumer behaviours by trying different shopping behaviours. Because of the pandemic,
they cannot go to the store, so the store “comes to home”. While consumers go back to old habits, it is likely that they will be modified by new regulations and procedures in the way consumers shop and buy products and services. One of the key questions is whether this behaviour will be return to normal after the period of COVID-19 pandemic. As consumers adapt to limited mobility over a longer period, they are likely to embrace new technologies that facilitate work, study, and consumption. Adoption of digital technology is likely to change existing habits; also, the public policy will impose new consumer habits. The findings also open the possibility for further research of consumer behaviour across cultural diversity (Jagdish, 2020).

Consumers are the drivers of market competitiveness, growth and economic integration. Businesses are facing a significant shift in consumer priorities, along with the subsequent emergence of a new competitive landscape (One space, 2017). In times of crisis such as the COVID-19 pandemic, companies will need to identify changes in the way of running their businesses and developing digital entrepreneurship.

SURVEY ON THE CONSUMER BEHAVIOUR DURING THE COVID-19 PANDEMIC IN THE REPUBLIC OF NORTH MACEDONIA

Research design and methodology

Methodological approach for this paper is based upon quantitative methodology, using a research survey to collect information from a sample of individuals through their responses to question, supplemented by cross tabulations of data tables in order to examine relationships within the data.

A survey of consumer behaviour was conducted in April 2020 after the announcement of the COVID-19 pandemic in Republic of North Macedonia. The questionnaire is composed of 11 questions, divided in two groups. The first group of questions is about the demographic profile and the employment status of the respondents. The second group of questions in the survey is about consumer behaviour and the awareness of their changing behaviour influenced by the pandemic crisis.

The questionnaire was distributed online through Google forms platform, thereby reaching 427 respondents (random sample).

In order to obtain information that were not readily apparent when analysing total survey responses, cross tabulation was applied to the survey data. This research method enabled to explore relationships between various aspects of changes in consumer behaviour that businesses can use to step up their digital transformation efforts, foster e-commerce and promote an effective and widespread transition of many digital platform activities as a step forward in development of digital entrepreneurship. Cross tabulation was used in order to analyse the relation between the change of consumer behavior in COVID-19 pandemic and respondents concern about the COVID-19 pandemic, their expectations for the length of the COVID-19 crisis, employee status and the monthly income their household.

Survey analysis

In order to identify changes in consumer behaviour as an opportunity for fostering digital entrepreneurship in the Republic of North Macedonia, an online survey was conducted in April 2020, when the COVID-19 pandemic started. The findings based on the analysis of data obtained by the survey are given below.

As mentioned above, the first group of questions is about the demographic characteristics of the respondent such as employment status, the number of the members of the family and monthly income of the households. The data shows that half of the respondents are employed in the private sector, 30% are employed in the public sector and only 8% of them are unemployed.
At the same time, the larger percent of the respondents (25%) lives in the households with 3 members and 37% are families with four members. Only 8% of them live alone as singles.

Monthly income for the largest part of the respondents (34%) is between 30,000.00 and 60,000.00 MKD. The second largest percent of the respondents or 26% of them have monthly income between 14,500.00 and 30,000.00 MKD. Only 7% have less than 14,000.00 MKD, while nearly 14% of the respondents declared of having monthly income above 100,000.00 MKD.

The second group of questions is related to the consumer behavior and the awareness about the changing behaviour influenced by the pandemic.

Analysis of respondents’ answers to the question: “How would you express your concern about the COVID-19 pandemic”, shows that more than a half of the respondents (59%) are seriously worried about the COVID-19 pandemic. In addition, only 3% are not worried and 38% consider themselves little worried (see Figure 1).

![Figure 1. How would you express your concern about the Covid-19 pandemic?](source: Own research based on primary data collection)

In correlation with the question about the respondent's opinion of the duration period of pandemic, most of the respondents (60%) are optimistic and believe that the duration of the pandemic will be three months. Despite the fact that this survey was conducted in April 2020 when the pandemic has started, it become obvious that most of the respondents were not aware about the severity of the crisis and the period of its completion. Only a small percentage of respondents believe that the crisis will last more than 6 months (8%) (See Figure 2).

![Figure 2. When do you expect the Covid-19 crisis in the Republic of North Macedonia to end? (Starting from the moment you fill in this questionnaire)?](source: Own research based on primary data collection)
Figure 3 presents the respondents’ answers to the question: “Do you have the impression that the crisis due to the COVID-19 pandemic is changing your consumer habits?” It can be seen that 80% of the respondents have the impression that COVID-19 pandemic has influence on consumer habits and behavior. Given that the research was conducted at the beginning of the pandemic, changes in consumer behaviour are observed immediately after the onset of the pandemic, which is a significant indicator of behavioural changes that will be observed over a long period.

![Figure 3](image)

**Figure 3.** Do you have the impression that the crisis due to the Covid-19 pandemic is changing your consumer habits?

*Source: Own research based on primary data collection*

The data presented in Figure 4 refer to the ways on how this pandemic changed the consumer habits of the respondents. It can be seen that 56% of the respondents choose the option “Buying stocks of products that otherwise you would not buy them in such quantities”. The changes in the consumer’s behavior presented in the other three different possible choices are almost equally divided. Therefore, overbuying and creation of stocks are the most common changes in the consumers’ behavior in the period when the survey was conducted, which is almost an instinctive human behavior. What is especially interesting, as can also be noted in Figure 4, that COVID-19 pandemic caused 16% of the respondent to start online shopping, which gives clear indication that this change in consumer behavior can accelerate the process of digital transformation across almost all sectors.

![Figure 4](image)

**Figure 4.** How did the situation with the Covid-19 pandemic change your consumer habits?

*Source: Own research based on primary data collection*
The analysis of the obtained data about the products that consumers most often buy during the pandemics presented in Figure 5 and Figure 6.

**Figure 5.** Choose up to 5 (five) categories of products and services that you usually buy during COVID 19 pandemic?

*Source: Own research based on primary data collection*

The four main categories of products and services that consumers usually buy in the time of the pandemic are: food and soft drinks, personal hygiene products, home hygiene products and health and beauty products. Alcoholic beverages and tobacco and pet products are on the fifth and sixth place on the buying preference list. The highest percent (97.60%) is about the option that consumers mostly buy food and soft drinks, and products for personal and home hygiene products (90% and 81.40% resp.).

Such a distribution of responses was expected given that respondents are committed to respecting government measures to combat the spread of the virus and they refer to personal hygiene and household hygiene as one of the measures for protection against the pandemic.

**Figure 6.** Choose up to 5 (five) categories of products and services that you won’t consider buying during the crisis with the Covid-19 pandemic?

*Source: Own research based on primary data collection*
The quarantine period in the country, the closure of restaurants and other fast food services have increased the amount of food and soft drinks that respondents buy for domestic needs. Restaurants and bars, travel, hotel services and transport are the least chosen options for purchasing among the respondents. This can also be seen from the Figure6 where the same categories were chosen as having the least chance to be bought during the pandemic.

**Cross tabulation analysis**

Survey analysis presented above is in aggregate form and give a summary of the results, one question at a time. Cross tabulation takes this analysis one-step further and enables to see how one or more questions correlate to each other. This qualitative analysis helps to reveal a relationship between the change of consumer behavior in COVID-19 pandemic and respondents concern about the COVID-19 pandemic, their expectations for the length of the COVID-19 crisis, employee status and the monthly income their household. Cross tabulation analysis of selected answers is provided below.

The first cross tabulation is shown in Table 1. It represents the perception of changed consumer habits among the respondents, regarding to their level of concern for the COVID-19 pandemic.

**Table 1.** Cross tabulation analysis of the question about the respondents concern with COVID-19 pandemic, and question about how the situation with the COVID-19 pandemic changed their consumer habits

<table>
<thead>
<tr>
<th></th>
<th>Buying stocks of products that otherwise you would not buy them in such quantities</th>
<th>Buying products you would not bought normally</th>
<th>Shopping online and order by phone, not in-store</th>
<th>Buying in a store or market where otherwise I don’t buy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Little worried</td>
<td>42%</td>
<td>33%</td>
<td>52%</td>
<td>14%</td>
</tr>
<tr>
<td>Seriously worried</td>
<td>58%</td>
<td>63%</td>
<td>48%</td>
<td>79%</td>
</tr>
<tr>
<td>Not worried</td>
<td>0%</td>
<td>3%</td>
<td>0%</td>
<td>7%</td>
</tr>
</tbody>
</table>

*Source: Own research based on primary data collection*

It shows that level of concern regarding the COVID-19 pandemic has accelerated the process of digital transformation of consumers’ habits. Namely, the group of respondents that are little worried and the group of respondents that are seriously worried have significantly changed their consumer behavior. As seen on Table 1, respondents who are little worried about COVID-19 are mostly using online shopping method (52%) and buying products and services to create stocks (42%). The respondents who are seriously worried about the crisis (79%) are buying products in stores or markets where they would not otherwise buy, while only 48% of them use online or other non-physical forms of purchasing products and services. The group of respondents who are “not worried” are not interested in shopping online.
Table 2. Cross tabulation analysis of the question about expected length of the COVID-19 crisis in the Republic of North Macedonia, and the question about how did the situation with the COVID-19 pandemic change their consumer habits?

<table>
<thead>
<tr>
<th></th>
<th>Buying stocks of products that otherwise you would not buy them in such quantities</th>
<th>Buying products you would not bought normally</th>
<th>Shopping online and order by phone, not in-store</th>
<th>Buying in a store or market where otherwise I don’t buy</th>
</tr>
</thead>
<tbody>
<tr>
<td>up to a month</td>
<td>42%</td>
<td>13%</td>
<td>19%</td>
<td>21%</td>
</tr>
<tr>
<td>from one to three months</td>
<td>42%</td>
<td>62%</td>
<td>38%</td>
<td>29%</td>
</tr>
<tr>
<td>from three to six months</td>
<td>8%</td>
<td>16%</td>
<td>29%</td>
<td>43%</td>
</tr>
<tr>
<td>more than six months</td>
<td>8%</td>
<td>8%</td>
<td>14%</td>
<td>7%</td>
</tr>
</tbody>
</table>

Source: Own research based on primary data collection

Data in Table 2 show that respondents who think that the crisis will last up to one or three months, are more oriented towards buying stocks of products that they would not otherwise buy in those quantities, i.e. buying products that are not usually bought (42% and 62%, respectively). In contrast, respondents who think that the crisis will last more than three or six months are using online shopping (29% and 14%, respectively). Given that the crisis is still ongoing, and its end cannot be predicted with certainty, it is expected that the need for online sales will increase even more, which implies opportunities to foster digital entrepreneurship.

The following cross-tabulation analysis shows the change in consumer behaviour in relation to employment status during the analysis period (Table 3). In terms of online sales, the data show that it is most preferred by employees in the private sector, but is not used at all by craftsmen and retirees.

Table 3. Cross tabulation analysis of the question about the employee status and the question about how did the situation with the COVID-19 pandemic change their consumer habits?

<table>
<thead>
<tr>
<th></th>
<th>Buying stocks of products that otherwise you would not buy them in such quantities</th>
<th>Buying products you would not bought normally</th>
<th>Shopping online and order by phone, not in-store</th>
<th>Buying in a store or market where otherwise I don’t buy</th>
</tr>
</thead>
<tbody>
<tr>
<td>less than 14.500 MKD</td>
<td>33%</td>
<td>7%</td>
<td>14%</td>
<td>7%</td>
</tr>
<tr>
<td>from 14.500 to 30.000 MKD</td>
<td>33%</td>
<td>23%</td>
<td>24%</td>
<td>43%</td>
</tr>
<tr>
<td>from 30.000 to 60.000 MKD</td>
<td>8%</td>
<td>35%</td>
<td>33%</td>
<td>21%</td>
</tr>
<tr>
<td>from 60.000 to 100.000 MKD</td>
<td>25%</td>
<td>20%</td>
<td>10%</td>
<td>7%</td>
</tr>
<tr>
<td>more than 100.000 MKD</td>
<td>0%</td>
<td>15%</td>
<td>19%</td>
<td>21%</td>
</tr>
</tbody>
</table>

Source: Own research based on primary data collection

In Table 4, data presents that respondents with lower amount of income are more prone to buy stocks of products that they would not otherwise buy in those quantities. This behavior could be explained with psychological factors i.e. the people that have lower income in the observational period stock as much products as they can because they are afraid of the uncertainty of their income in the future. Survey data suggests that online shopping helped respondents with lower income to overcome their worries about security. As seen on Table 3, these groups of respondents’ prefer more online shopping in comparison to people with monthly income more than 60,000 MKD.
The findings from the cross-tabulations provide various aspects of consumer behaviour changes that businesses can use to step up in their digital transformation efforts. Namely, this analysis provides possibility to identify appropriate target groups for digital entrepreneurship development.

CONCLUSION

The COVID-19 pandemic has caused many social and economic changes on the global level. From its beginning, in order to prevent the spread of the pandemic, in almost all countries affected by COVID-19, a number of protective measures are undertaken for physical and social distance among population.

The measures have caused changes in individual behaviour, most of which are psychological in nature, such as: anxiety, fear, and uncertainty. These also affected consumers’ shopping behavior.

The Republic of North Macedonia is still heavily affected by the COVID-19 pandemic. Self-imposed social distancing to avoid contagion, together with the strict confinement measures implemented in the country, have put a large share of traditional retail and many other businesses virtually on hold, at least temporarily.

Namely, during self-isolation, most of the Macedonian consumers create stocks of food and other essential. These changes are result of the current situation when people (i.e. consumers) are in the risk of infections, have a feeling of fear, nervous and panic, loss of control and insufficient security. Public health demands forced many people to be most of the time at home, leading to more Internet use, as a neutral and most suitable platform for development of digital entrepreneurship.

The survey about the impact of the crisis on consumer behaviour is conducted in order to examine whether the external shock (COVID-19 pandemic) can foster the adoption of digital entrepreneurship in the Republic of North Macedonia. In this paper, in addition to the descriptive analysis of the survey data, the cross-tabulation provides information on the possible identification of target consumer groups as well as the possibilities for the current and future wider application of digital tools in business.

The main findings from the survey data indicate that most respondents (78%) are aware of the changes in their shopping behaviour. More than half (56%) have changed their behaviour habits by buying bigger stocks of products compared to the period before the pandemic. Although pandemic has accelerated the process of digital transformation across almost all sectors, it is evident that Macedonian consumers intend to continue shifting their spending to essentials, while cutting back on most discretionary categories. Consumer sentiment varies greatly across their expectations for the length of the pandemic, employment status and the level of their monthly income.

In terms of shopping behaviour changes, during the analysed period, 16% of the respondents from the survey have started shopping online and/or ordering by phone, but not in the store. This indicates that digital entrepreneurship, creation of digital businesses and the adoption of digital technologies by existing Macedonian businesses may hold potential for helping many of them to survive the ongoing crisis.

The comparison between the survey data and the previous studies on consumer behaviour in COVID-19 pandemic (Capgemini, 2020) shows that consumers in Republic of North Macedonia are also focusing rather on essential goods than other discretionary categories and leisure products. Their priorities are focused on the basic needs, which increases the demand for hygiene, cleaning and other basic products. Also, in comparing the survey results and the findings of the Nielsen study about the level of consumer awareness of the spread of COVID-19 pandemic, it can be observed that consumers in the Republic of North Macedonia are aware of the danger from pandemic and the changes of their behaviour. Regarding on the stages of their
awareness on the spread of COVID-19 in the environment, they also show a tendency for increased online shopping and reduced store visits in the pandemic period.

The cross-tabulation of the level of concerns and the changing consumer habits in the COVID-19 pandemic period shows that respondents which are more concerned for the current situation are also more oriented towards changing their habits. It is noticeable that in comparing the survey data and the findings from previous studies (Jagdish, 2020) Macedonian consumers are also buying larger quantities of products they have not previously bought mainly from outlets including e-commerce. This could be very useful for companies to understand and anticipate consumer activities, which can help in the development and fostering of digital entrepreneurship in the present and the future.

The findings in this paper could be used to give the business leverage to overcome the crisis. General conclusions are rather encouraging and show that undoubtedly, during the pandemic period, in the Republic of North Macedonia changes occurred in terms of greater application of e-commerce and e-business. Businesses and companies will need to understand how their customers react and seriously consider using digital tools to survive the current crisis.

Noted changes in consumer behaviour indicate the need for all stakeholders to undertake a series of activities and measures to mitigate the short-term challenges of the crisis and provide sustainable solutions for survival and business development in the Republic of North Macedonia, during and after the crisis. The Government needs to support and to step up digital transformation efforts, foster e-commerce and promote the effective and widespread transition of many digital platform activities, as a step forward in the development of digital entrepreneurship. Macedonian entrepreneurs must intensify the utilisation of novel digital technologies (particularly social, big data, mobile and cloud solutions) to improve their business operations, invent new business models, sharpen business intelligence, and engage with customers for the long-term, rather than just for the length of the crisis.

Given that this research was conducted at the very beginning of the COVID-19 pandemic, opportunities to deepen the results should be sought in further research on consumer behaviour in the Republic of North Macedonia during the pandemic, with an emphasis on the tendency to change ways of supplying a wider application of electronic commerce. Also, as a result of changing consumer behaviour, further research should focus on the companies and their wider application to e-commerce and the development of e-entrepreneurship.

REFERENCES


