



# Consumer Behavior in Crisis Situations. Research on the Effects of COVID-19 in Romania

Silviu STANCIU\*, Riana Iren RADU\*\*, Violeta SAPIRA\*\*\*, Bogdan Dumitrache BRATOVEANU\*\*\*\*, Andrei Mirel FLOREA\*\*\*\*\*

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## ABSTRACT

The emergence of some critical incidents of economic, biological type-crises, armed conflicts, natural cataclysms can affect significantly the activity of the human society. The article aims at analyzing the behavior of the Romanian consumer in the context of COVID-19 emergence. The performed research has highlighted the particularities of the emergence of this sanitary crisis at the local economy level. Although the Romanian population's infection degree has been more reduced as compared to the Western states, the strict prevention measures imposed by the authorities have determined a model of behavior of the consumer close to the one of other states affected by the infection with the new coronavirus, SARS-CoV2. The market studies performed by specialized companies have shown that imposing home isolation conditions, due to the emergency state, has significantly reduced the social activities of the Romanian consumer, the actions being oriented mainly towards covering the basic necessities. The health of the consumers (purchase of medicines or visit to the physician), procuring food or financial activities at the banking units are the main motivations for leaving the residence. By comparison, the sports activities or the visits for supporting family members have the lowest weight. A segment of consumers, advocate of traditional commerce, has been forced to appeal to modern trade methods based on online shopping, and the specialists' estimations provide the maintenance of the trade behavior. Companies will have to focus on understanding the consumer's needs and to adapt their product offer and distribution system so that to reduce the new consumption limits and to facilitate the sales act. The main orientation during the crisis towards the local products can represent an opportunity for the Romanian companies, but Government support measures are necessary for the Romanian producers. The research results are a novelty, being among the first studies conducted at national level on the complex impact of COVID-19 on the health of the population, the national economy and consumer behavior start.

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## 1. Introduction

The evolution of human civilization has highlighted a series of crises generated by pandemics, wars, cataclysms or other natural phenomena, which have led to the occurrence of severe economic problems, materialized in thorough changes of the society (Jarus, 2020). The global human history has registered thousands of epidemics, including diseases from bubonic plague to smallpox, SARS for respiratory diseases, Ebola, HIV or recently, SARS-CoV2.

In this context, Faust (2020) speculates on the consequences of global pandemics from social, political and cultural perspectives on a long term, forecasting a thorough modification of the actual human society, going to another development level.

In most critical incidents in which the society has been affected by pandemics, the demographic reduction and major food safety problems have occurred, which have led to mass movements and political changes. It can be mentioned the loss of supremacy of Athens in the Greek world or the decay of the Western Roman Empire, the disappearance of slavery and development of feudalism due to bubonic plague, the accelerated industrialization and establishment of capitalism due to the Spanish flu, the Arab Spring and the modification of totalitarian regimes from the Middle East in the last decade of the last century (Stanciu, 2015).

## 2. Literature review

When accounting for the main pandemics which have had affected the humanity, Jarus shows that generalized epidemics have occurred since 5,000 years ago in China (epidemic wiped), followed by the Bubonic Plague in Ancient Greece (430 BC) and the Roman Empire (A.D. 165-180, 250-271, 541-542), Black Death (1346-1353) in Asia and Europe, cocoliztli epidemic in Central America (1545-1548), Great Plague of

\*, \*\*, \*\*\*, \*\*\*\*, \*\*\*\*\*Dunarea de Jos University of Galati, Romania. E-mail address: [floreaandrem@yahoo.com](mailto:floreaandrem@yahoo.com) (A.M. Florea - Corresponding author)

London (1665-1666), Marseille: (1720-1723), Russia (1770-1772), Philadelphia yellow fever (1793), Flu pandemic (1889-1890), American polio epidemic (1916), Spanish Flu (1918-1920), Asian Flu (1957-1958), AIDS pandemic and epidemic (1981-present day), H1N1 Swine Flu pandemic (2009-2010), West African Ebola epidemic (2014-2016), Zika Virus epidemic (2015-present day) and Swine fever (2010-present).

COVID-19 pandemic is a global health crisis having already devastating impact on the world economy. The first official information on the infections with the new coronavirus SARS-CoV2 (the epidemic being usually called COVID-19 in media) has emerged in China, being spread subsequently to Europe, EuroAsia and America (Mayo Clinics, 2020; Hui et al., 2020). The coronaviruses circulate mainly among animals, but they can evolve and infect humans like in the cases of Severe Acute Respiratory Syndrome (SARS) and Middle East Respiratory Syndrome (MERS) together with four coronaviruses which cause light respiratory symptoms similar to common cold. The researches performed by Van Dorn and Yu (2019) have proven that all coronaviruses infected in humans spread from human to human, so theoretically there is no danger of transmission from human to domestic animals. The average incubation period is 5 – 6 days, varying between 1 and 14 days, the light symptoms including fever, cough and breathing difficulties. According to WHO (2020a), in the case of interhuman transmission, there is an interval of 4.4 – 7.5 days between the onset of the symptomatology at the first person and the onset at the infected person. The mortality rate is 2.3% in China, but considering that there are also cases with light symptoms, the affected persons not consulting a physician, the real mortality rate has estimated values of 0.3 – 1%. In average, a patient can infect other 1.4 – 2.5 persons, much more comparative to the common flu.

The history of occurrence and dissemination of SARS-CoV2 virus among population is already a controversial subject at international level, the US President, Trump, mentioning as potential sources including a scientific accident from a virusology laboratory from Wuhan, or even an international action of China of spreading the virus as a new form of economic war (The Guardian, 2020).

At present, the infection with the new coronavirus SARS-CoV-2 affects over 3 million persons at world level, but this number is continuously increasing and the information on the discovery of a medical treatment with certain results or the development of a vaccine is being late (Corbu, 2020). Senior persons, individuals with a deficient immunity system and who suffer from morbid disorders are mainly affected, among which most death cases occur. The seriousness of COVID-19 symptoms can vary from light to severe. Certain medical evidence on the occurrence of self-immunization at the cured patients is still unsure.

World Health Organization (WHO) has issued an interim guide in order to answer quickly to the need of recommendations on the home care in safety conditions for patients suspect of infection with the new coronavirus, which present light symptoms, and on the public health measures related to the management of their contacts, the previous cases of infections with other coronavirus strains. The actual recommendations of the international forum are that the laboratory confirmed cases to be isolated and cared for in a health unit. In the cases when the isolation in a health unit of all cases is not possible, those with the highest probability of poor results must be prioritized. The general recommended measures are strict personal hygiene, avoiding contact with persons susceptible of infection, isolation, quarantine and most recently, wearing protection masks in public spaces (WHO, 2020a).

The main concern of the national governments at the moment when the infection with the new coronavirus was signaled was to reduce the pandemic impact and to avoid some critical situations in hospitals, due to over-agglomeration with infected patients.

Although the population's supply of food and basic necessities has remained satisfactory to date due to stocks, the measures to stop the spread of the virus in many countries are beginning to disrupt the supply of agro-food products to markets and consumers, both nationally and internationally. According to the statement of the Organization for Economic Co-operation and Development (OECD, 2020a), the global economy is already facing substantial changes in the structure of demand and supply of agro-food products.

The effects of the pandemic have manifested differently from country to country depending on the general health of the population and the evolution of disease cases, on the economic level, on the development and modernization of the national medical system, on the measures established by decision makers and on the scrupulousness of the population (Gopinath, 2020).

The measures to limit the spread of infection have a high impact on sectors of activity such as tourism, retail, transport, agriculture (Stephany et Al, 2020). There is a number of strategies that traders need to apply in this context in order to cope with the changes, whether to ensure the need for merchandise in the food and medical sector or to rethink a survival strategy in other sectors (Roggeveen & Sethuraman, 2020). The paper deals with aspects of changes in consumer behavior and how to approach producers and distributors in these conditions.

The spread of the global coronavirus epidemic has had a strong impact on financial markets, with important effects on the world economy expected as a result of measures taken to manage the medical crisis. For Romanians, the effects of an economic crisis can be most easily felt by a depreciation of the national currency against Euro, an evolution that is immediately felt in bank loan rates, in higher bills for telephony or utilities, and in purchasing power for goods such as real estate (apartments, rents etc.) or cars.

Understanding the processes used by the consumer in choosing a product is an indispensable element in the marketing strategy of any entity (Rajogopal, 2020). In normal situations, the consumer's decision whether or not to choose a product is often related to its intrinsic and extrinsic characteristics (Asioli et al., 2017, Richardson et al., 1994). In the context of the Covid-19 pandemic, there is a change in the appreciation of the usefulness of some products, the emphasis being on providing food and less on the luxury goods and services sector (OECD, 2020a). The introduction of unprecedented measures in the context of the spread of coronavirus in the world leads to radical changes in the lifestyle of citizens and the business environment (Ho et al, 2020). The challenges faced by the health system also affect the economic stability and living standards (OECD, 2020b). The economic stability during a pandemic is directly influenced by the closure of some sectors of activity, the reduction of the labor force and the need for large investments that burden the State Budget (Patel, 2015). Stopping or suspending the activity of some companies, limiting the transport of goods and closing the borders of states produce chain effects on trade, agriculture, tourism and transport (World Bank, 2014).

Price-Smith (2009) points out that during pandemics, a series of tensions arise between the State and citizens that increase social discrimination and call into question the State's ability to manage the situation.

In this economic, social and political instability context, the consumer is subjected to a systematic stress that is felt as a "loss of control over his/her environment" (Botti and McGill, 2011). The stress determines him/her either to save money in order to accumulate resources that would offer him/her comfort, or to manifest an impulsive behavior in purchasing products that he/she considers absolutely necessary (Durante and Laran, 2016).

The consumer's behavior thus requires adapting company strategies and identifying new ways to reach to the customer (OECD, 2020a). An example in this sense is the growing demand for long-life food products at the expense of perishable food products in some countries. (FAO, 2020a). This leads to major losses for farmers both in terms of perishability and storage, corroborated with labor shortages (FAO, 2020b). The effect of this change in the short and long term will be felt by all actors involved in the food chain, but especially on small and medium-sized ones (FAO, 2020c).

Online commerce has developed rapidly in the last period due to the recommendations of keeping the social distance. The trade sector has registered a significant increase in recent years in Romania, and the presence of companies in the online environment during the pandemic is one of the main solutions for survival (MCSI, 2019; Iacob, 2019). Although this process of implementing information and communication technology in the business environment has grown in recent years, it is important to see how investments in technology can lead to economic recovery (Park and Choi, 2019).

### 3. Methodology

The bibliographic documentation has used the specialty literature available in Clarivate Analytics, ResearchGate and Google Scholar scientific databases. For the legislative regulations, the official announcements of the Romanian public institutions, the regulations of the European Commission or the recommendations of the World Health Organization were used. In order to evaluate the consumer's behavior, the studies of companies specialized in market research have been used. The results of the research have been analyzed, graphically represented and interpreted. The conclusions of own research have been compared to the ones of some specialty papers, in order to obtain results as close to the truth as possible.

### 4. Results of the study

#### World status of COVID-19 Pandemic

The updated situation of the disease, ie the cases of infections and deaths recorded worldwide at the end of April is shown in Figure 1.

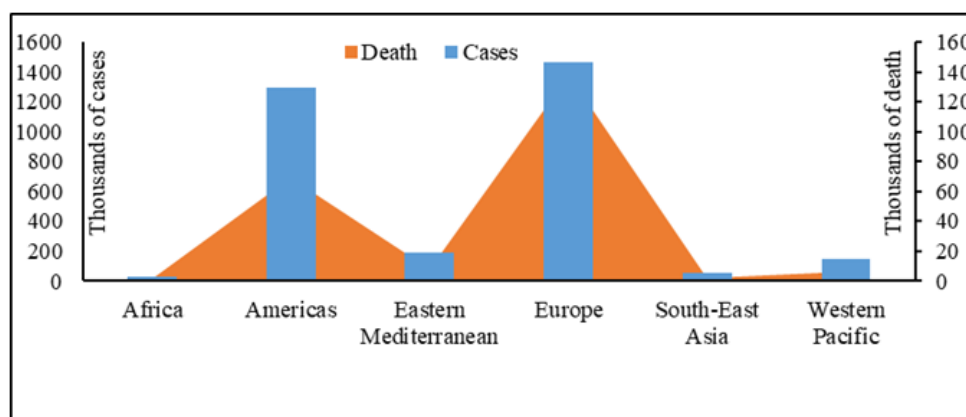


Figure 1. Status of COVID-19 infection at world level  
Source: Authors, by using WHO (2020b)

According to WHO statistics, based on reports from national authorities, in Americas, the US ranks first in terms of infected cases, with over 80% of all infections (1,035,353 persons, out of which over 30.000 in the last week) and more than 85% from total deaths (55,337 deceased).

In Europe, the first positions as number of infected persons are occupied by Spain (213,435), Italy (205,463) United Kingdom (171,257), Germany (159,119) and France (128,121), countries in which more than 60% of the European cases are registered.

The efficiency of the prevention strategies, the degree of education of the population and the quality of the public health systems from the European countries is reflected in the number of deaths registered, statistics in which the first positions are occupied by Italy (27,967), Spain (24,543) and France (24342). By comparison, Germany has registered only 6,288 life losses.

A strongly ascending numerous casuistry is presented also by Russia, Turkey and Belarus, states in which the number of cases from the above mentioned states can be exceeded, considering that a reduction of the number of daily registered infected persons has been observed in the Western Europe.

The isolation of the population, the closing of schools, shops and borders, prohibition of reunions, state of alert or emergency status have been the main general measures taken in Europe in order to fight against the propagation of the new coronavirus. The strategies approached in the reduction of the impact of the pandemic have been different at European level in what concerns the moment, the duration of application and strictness level.

Italy, the first affected country, did not have a strict prevention strategy at the beginning of the pandemic, delaying the decision to keep the population at home and to close the trade units / touristic sites, due to the economic concerns related to keeping the income from the tourism sector. The population has not granted sufficient attention to avoiding public agglomerations, to the strict measures of social distancing, respectively of personal hygiene, the disease being initially considered a stronger flu. This approach, completed by the lack of medical material stocks intended for the protection of the medical personnel, respectively for taking care of the patients in hospitals, has led to a national tragedy with almost 28,000 persons deceased up to present, including the medical staff.

The situation was relatively the same in France and Spain, the only difference being the disparity between the outbreak moments of the epidemic, delayed by few days as compared to Italy, which has allowed a relative diminishment of the impact (reporting the number of cases, respectively deaths, to the total population). The Spanish government has restricted the freedom of movement in the entire country, except for exceptional reasons. The measures, the most drastic ones approved by the Spanish government in the last decades, have led to the closure of schools at national level, as well as of non-essential commercial centers, of sports and cultural centers.

Germany has strictly approached the prevention measures by closing the public institutions and commercial units (except for Police, medical units, food and medicine supply points for population) and by maintaining the population at home which, due to disciplined and aware citizens, has reduced significantly the impact of the epidemic.

The Nordic states, including the United Kingdom (UK), have initially had an approach based on the principle of population's self-immunization, by which it was considered that by reaching a critical mass of 60% of the infected and cured population, the problem would be solved. No public prevention measures, i.e. closing of schools, of public supply units, avoiding collective gatherings, had been applied. The approach was a classical one, with good results for a common flu, but it did not function in case of Covid-19. Sweden and UK have started to apply the measures recommended by WHO as the number of infected / deceased persons has increased alarmingly.

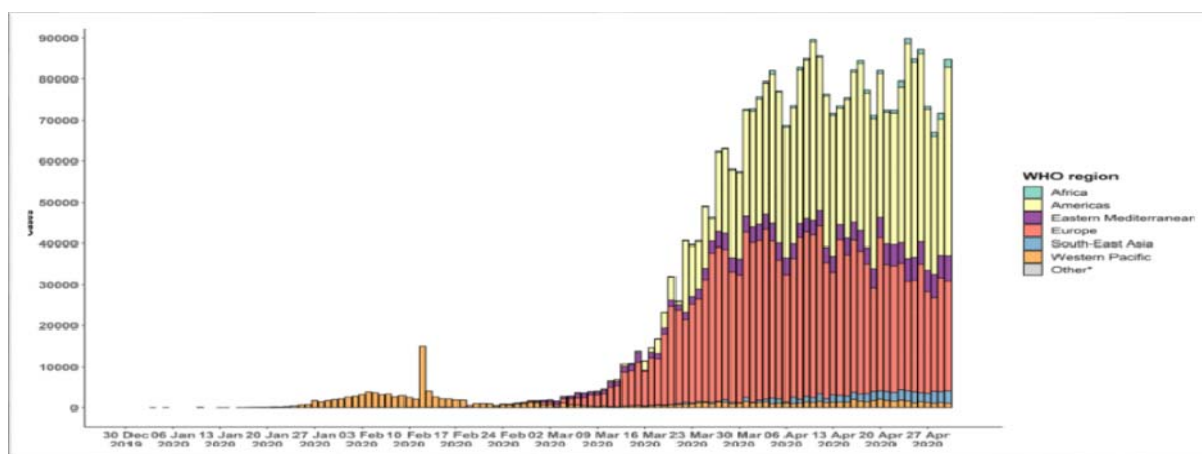


Figure 2. Evolution of COVID-19 infections at world level  
Source: Taken over from WHO Report (2020b)

The evolution of the infections at world level, presented in Figure 2, taken over from WHO statistics, shows a strong increase in the total number of infections / deaths in Europe and America, against the diminishing of the cases registered in the Asian area.

The United States of America (USA) were taken relatively by surprise by the pandemic, although the signals coming from China and Europe were of concern, reason for which it has been observed an alarming increase in the number of infections, respectively of deaths. Against some controversial statements of the USA Presidentship and the protests of the population on the preventive closure of the economic units, it is possible to observe a record of the number of infected / deceased persons, having the potential to exceed even the cumulative status of the other states at world level.

An interesting medical phenomenon observed at the level of the American population is the higher incidence of death cases among the blacks and Latinos patients under the age of 65, as compared to white and Asian patients. The preliminary researches performed by Poston, Barboza and Reyes-Velarde show that there is the possibility of a differentiated sensibility of the population to the action of the new coronavirus SARS-CoV2, according to racial and ethnic lines.

As compared to Europe and America, with capitalist political regimes, the Chinese state, with a communist political orientation, has applied extraordinarily strict measures in Wuhan region where the first infections had been officially signaled. The first official Chinese announcements were made on 12<sup>th</sup> December 2019, when it was signaled a small group of persons residing in the center of Wuhan city, China, with pneumonia of unknown cause. Initially, the virus was related mainly to the stand owners who worked in Huanan fish market, which sold also alive animals, being initially forwarded the official version of a zoonosis coming from the bat, snake or pangolin. The powerful measures of complete closure of Wuhan city and neighboring areas, the fast construction of new hospitals in the affected area, the conjugated economic effort at national level has led to a relatively reduced number of infections / deaths, as compared to the great mass of Chinese population. The opinion manifested in international media is that this information achieved by the Chinese government can be affected by an incomplete evaluation, existing many corrections on the total number of death cases collected by the official Chinese institutions. Reporters sans Frontieres (RSF) Organization takes into consideration including the possibility of avoiding / reducing the global effects of the pandemic under the conditions of freedom of speech of the Chinese press and transparency on the information on the evolution of the epidemic from the communist regime (RSF, 2020).

### Status in Romania

According to official information, the first case of coronavirus confirmed on the territory of Romania was announced on 26th February 2020. As per the last Report of the Strategic Communication Group (2020), 12,732 persons were infected with the new coronavirus, 12,060 persons were in institutionalized quarantine and 20,886 persons were in solitary confinement at home, under medical supervision on 2nd May 2020.

Among the positively confirmed persons, at the moment of the report, 4,547 were declared cured and discharged from hospital, the number of the deaths due to COVID-19 being 755 deceased (DIGI24, 2020). The evolution of cases infected with the new coronavirus SARS-CoV2 is presented in Figure 3.

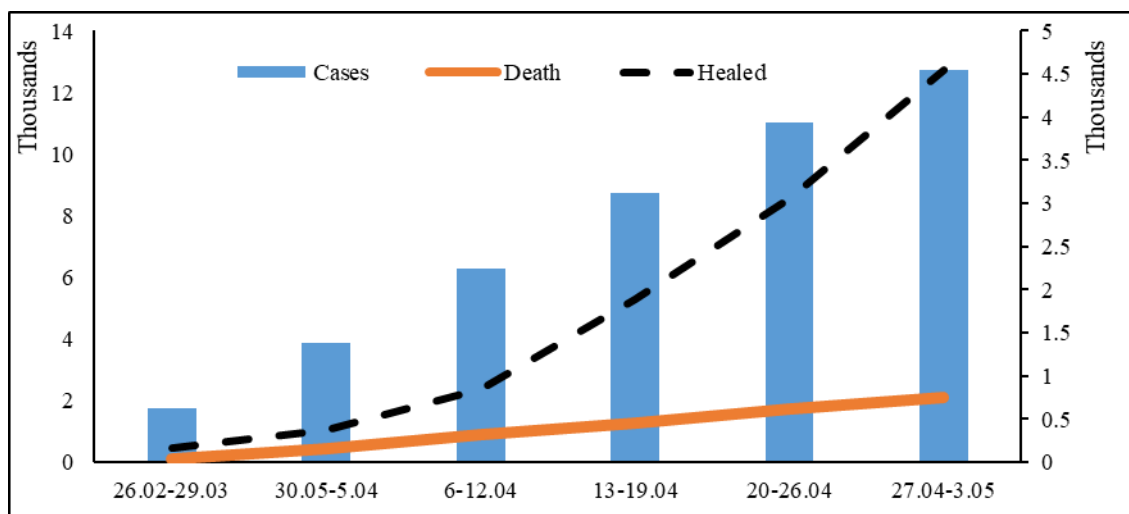


Figure 3. Persons infected, cured and deceased due to COVID-19 epidemics in Romania  
Source: The Authors, based on BRD - Groupe Société Générale data (2020)

The precarious status of the medical system has led to the emergence of some infection outbreaks at national level (Suceava County – 2, out of which 1 major – Suceava Municipality; Galati – 2; Dâmbovița - 1, Alba - 1; Focsani- 1; Vaslui – 1 etc.). The greatest COVID-19 infection outbreaks in Romania were the



hospitals, followed by the Senior Care Centers. Accordingly, the Municipal Hospitals from Suceava, Deva (taken over by military management), Focsani Military Hospital and Vaslui County Hospital are characterized by a large number of medical staff affected by the pandemic.

From the point of view of the measures package taken at the level of Romania, the Report of the European Commission (EC, 2020) mentions the increase in the expenses allocated to the health sector, expenses on the labor market, in order to reduce the impact on companies, fiscal measures, regional measures / other categories; the declaration of the emergency state (period between 16<sup>th</sup> March – 16<sup>th</sup> May); total quarantine of the population starting with 25<sup>th</sup> March, the circulation being allowed only in limited cases, the closing of schools, of commercial units (except for food shops, pharmacies); restriction on public activities; prohibition of flights towards and from the red zones at European level; contravention measures on the persons violating the Emergency Ordinances.

Among the neighboring countries, the highest number of confirmed cases of coronavirus up to 29.04.2020 has been confirmed in Ukraine (10,406 cases/261 deaths), Serbia (8,724 cases/176 deaths), the Republic of Moldova (3,771 cases/116 deaths), Hungary (2,775 cases/312 deaths) and Bulgaria (1,437 cases/61 deaths). (Libertatea, 2020).

According to the official information, an analysis of the persons affected by COVID-19 in Romania has highlighted a death rate of about 5.4% in Romania (Figure 4). As compared to the other states from the Balkans, the death rate is very high, although almost half as compared to the countries from the Western Europe (John Hopkins University, 2020). As per the quoted report, at European level, 8 countries have exceeded a death rate of 10%, the first place belonging to Belgium with 15.2% mortality as reported to the number of COVID cases.

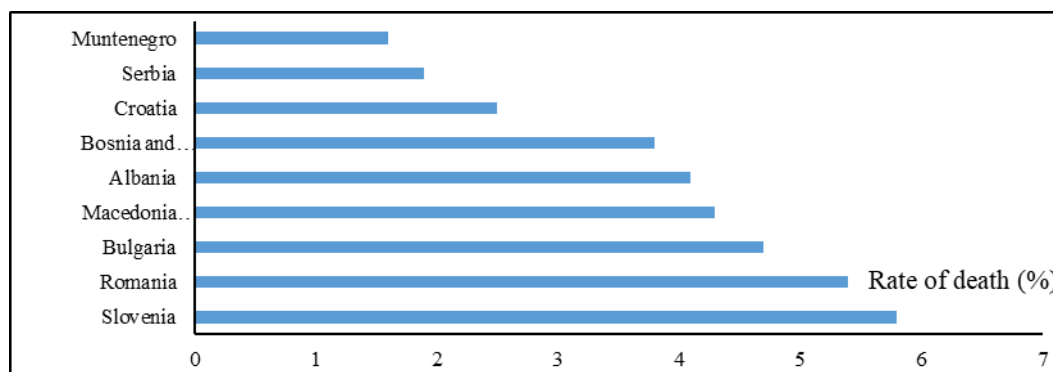


Figure 3. Death rate of the persons infected with COVID-19 in the Balkans

Source: the Authors, based on the data from John Hopkins University, (2020).

One of the explanations offered by the physicians is the lower general health level (the higher general infection degree at national level) in Romania, as compared to the European level. The patients with pre-existing disorders do not consult a physician in the incipient phases of the disease, especially in the poorer areas. The critical patient management in Moldova area, where Suceava, the largest coronavirus outbreak, is located, is not the best. The precarious technical endowment of the Romanian hospitals and the low number of physicians, as compared to the European average, can be added to these aspects.

### Changes in the behavior of the Romanian food consumer during COVID-19

For Romanians, the effects of an economic crisis are noticeable mainly by the depreciation of the national currency against the Euro, which affects bank loan rates, higher utility bills, reduction of the purchasing power for real estate (apartments, rents etc.) or cars. The study of Frames consulting company, quoted by România Liberă, highlighted supply problems, potential price increases and the accentuation of the financial blockage on the domestic markets. Tourism and transport are two other areas significantly affected, both from the perspective of investors and consumers. The advance purchase of holiday tickets by Romanian consumers of tourist services has led to the impossibility of reimbursing the transferred amounts, in full or as advance payment, by tourism companies, requiring measures from the State.

According to the study conducted by the Nielsen Company, quoted by StartupCafe (2020) publication, as the pandemic spread, there was a globally manifested change in consumer behavior. Thus, based on the survey conducted among consumers in 100 countries, a process including 6 stages in the evolution of consumer behavior was identified, directly due to concerns on the new coronavirus. This evolution is common to all markets affected by the pandemic, the companies requiring to understand and adapt to these changes, so that they can better plan future actions. The correlation of media releases and government decisions about COVID-19 with consumers spending on items such as health products and groceries reveals a number of recurring patterns.

In the first stage - proactive behavior aimed at increasing immunity and general health, this being followed by the stage of reactive health management, when purchases of protection products exploded. The third and fourth stages are the accumulation of supplies and the preparation for living in quarantine, followed by the real experience of a life full of restrictions. The last stage will be to return to normal, to the “new normal”.

These behavior changes are catalyzed by few vectors: the need of efficiency and quality, the orientation of the preference towards local products and finally, by technological catalysts.

In some European countries where the pandemic has propagated later on, like Romania, the news related to the propagation of COVID-19 led to a massive increase in purchases, in “preparation of provisions” stage. The local information transmission reports on the infection and death cases determine and influence the interest of consumers towards the products which they might need in their homes during the crisis. The speed of passing from one stage to another varies according to the case’s increase rate in each country. Along with the interdiction of travels starting with 24<sup>th</sup> March, Romania has gone quickly from the preparation stage to the quarantine stage. China is at present the only country where the consumers have reached already stage 6, starting to return to a normal life.

Nielsen study, quoted by StartupCafe (2020), has assessed the tendencies manifested in the sales of large consumption goods in the first 3 weeks (between 23<sup>rd</sup> February and 15<sup>th</sup> March) as compared to the same period of 2019. The total value increase of sales was 37.2%, and the categories with the most underlined dynamic were personal care products (+65.6%) and food products (+42%). The sales of products intended for home attending had increased in total with 23.4%, the tendency being accentuated especially in the last week of the interval (9<sup>th</sup> – 15<sup>th</sup> March), equivalent of the third stage of “preparation of provisions”, when some types of products such as fish cans +29.8%, soap and personal hygiene products +46.6%, spaghetti +37.8% had registered significant quantitative increases.

The study of Unlock Research Company quoted by Progresiv Magazine (2020) shows the way how the adapting and modification of the behavior of consumers from Romania has been achieved due to COVID-19 pandemic. According to the publication, the quoted study was performed in partnership by Unlock Research and Brain 4 Strategy Companies in the period between 14<sup>th</sup> and 17<sup>th</sup> March. The sample comprised 628 active employees, women and men with ages between 25 and 45 years old, who work from home, from large and medium sized cities from Romania, respectively the members of 4 focus groups from Bucharest, Iași and Cluj.

The main problems the Romanian consumer has been facing in the COVID-19 crisis period are:

- Financial problems, 46% of the respondents have put the material status on first place, before health (40% of those interviewed) in the reasons of concern ranking.
- The mental health (28%), spending free time (21%) and maintaining social relations (18%) are also included among the preoccupations of those forced to change their way of living from one day to another due to safety measures.
- Regarding the method of activity development during crisis period, only 30% of the respondents work from home. 89% claim that the way of working has changed and supplementary protection measures are implemented at the office.
- The social interactions have been limited to the maximum, 81% of the respondents have left their home not quite often. The frequent reasons invoked for going out are presented in Figure 4.

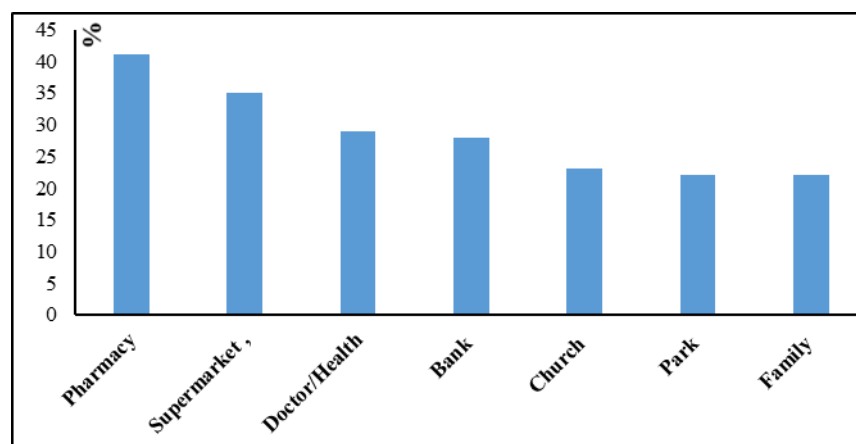


Figure 4. Leaving the home for covering some needs

Source: the Authors, by using Progresiv (2020),

The quoted study has shown that, in average, all traditional destinations of consumers have lost at least 60% of the common frequency; the social interaction from the last week was mostly limited to work. The need of medicines and the visit to the physician represented around 70% of the reasons for leaving the home, followed by food purchase (35%), payment of credits or other banking activities (28%), religious reasons (23%). The support activities of some family members who do not live with the respondents or visits to the park have represented only 22% of the motivations.

The companies will have to focus on understanding the needs and fears of the consumers and to adapt the distribution chain and the product offer so that to remove from the consumer's front the new consumption barriers and to make easier the sales act. In the crisis and home isolation situation, a new context of retail is arising – online shopping. The segment of consumers who were reserved in using the online shopping systems, due to the difficulties in using modern technologies, or the preference to choose personally fresh food products, was forced to appeal to the this purchase method. The prognosis of Nielsen Company is that this segment of consumers forced to use the online shopping system will not return to old shopping habits. The companies which can convince the consumers with the help of the accelerators identified by Nielsen study: quality and efficiency; local production; capacity to adapt to new retail technologies, will return the fastest to the market and will build customer loyalty in the post-crisis period.

## 5. Conclusions

Understanding the direction, the shopping habits are going to can help managing the distribution chain in the regions affected by COVID-19.

Although many mainly economic problems will appear, any crisis has the advantage of a real and thorough analysis of an activity sector. Accordingly, for Romania, COVID-19 pandemic has highlighted the necessity of investments in health area; the national medical system requires urgent investments in buildings, equipment and staff; the need to make the educational system more flexible and its preparation for completing face-to-face activities with the online version; the capacity of some companies from SME's group to adapt to the critical incidents and to identify market segments; the reappraisal of the national agro-food system (primary production – agricultural, industrial processing and trade), national investments and governmental support measures. The agro-food market is dependent on imports, and the manifestation of some critical situations can destabilize the food supply of the population. The agricultural production is dependent from climatic conditions and the governmental investments in a national irrigation system are insignificant.

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