
The Effect of Covid-19 on Consumer Behavior in Poland - Preliminary Research Results

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Abstract:

Purpose: The purpose of this paper is to present the results of preliminary research on the impact of restrictions during the Covid-19 pandemic in Poland on consumer behavior. In the research we tried to demonstrate that the pandemic restrictions and austerity have changed individual consumers' behavior in their daily shopping and to what extent.

Design/Methodology/Approach: In this research we used survey research method, i.e., CAWI (Computer Assisted Web Interview) technique. The surveyed population consisted of 214 respondents. The research was conducted in the second half of 2020. The sample selection was random.

Findings: The results indicate that certain consumer behaviors changed during the lockdown period, indicating the impact of the Covid-19 pandemic on consumer behavior.

Practical Implications: The research results obtained can become guidelines for changes in individual customer service. Indeed, it should be kept in mind that the change in consumer behavior under the influence of Covid-19 has three implications for management. First, business must also learn to improvise and become more flexible during a pandemic crisis. The second managerial implication is the matching of demand and supply. The third managerial effect is the occurring likelihood that consumers will not return to their old buying habits unless the technology they learn to use does not bring about significant changes in their lives.

Originality/Value: Presented results, complement previously conducted research on the impact of the Covid -19 pandemic on the behavior of Polish consumers. The research was designed to address, to some extent, the research gaps identified by others, in examining the effects of Covid-19 on consumer consumption and behavior.

Keywords: Consumer behavior, pandemic, Covid 19.

JEL codes: M31, D12, D91.

Paper Type: Research paper

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1. Introduction

COVID-19 is the most serious global economic and social crisis of recent times (Donthu and Gustafsson, 2020; Colleen and Rifkin, 2020). The blocking regulations imposed during COVID-19 resulted in several emerging economic pressures, including lower disposable income and income security (e.g., due to job loss or vacations) (Karpen and Conduit, 2020). In Europe, more clients are now pessimistic than optimistic about the economic recovery (Charm *et al.*, 2020; Grima *et al.*, 2020).

Although the long-term effects of COVID-19 are yet to be determined, its direct impact on retail sales is significant. Retailers of basic commodities such as food, grocery, and medical supplies are experiencing increased demand to serve consumers at home, facing challenges with inventory, supply chain management, delivery, and maintaining a safe environment in their facilities. On the other hand, retailers of goods such as clothing, footwear, and other non-essential goods are facing a significant decline in sales and must adopt new ways to reach and engage customers who shop online at home, just to make enough money for the living (Roggeveen and Sethuraman, 2020). The global spread of a new coronavirus, also known as the COVID-19 pandemic, had a devastating impact on the operation of entire supply chains (Chowdhury *et al.*, 2021; Khan *et al.*, 2020).

Consumer habits (behavior) were also changed as a result of the Covid-19 pandemic. Roggeveen and Sethuraman (2020) indicate that consumers may be getting used to new ways of shopping. Roggeveen and Sethuraman (2020) give the example of online grocery shopping with home delivery, which will likely become more common in the future as well. Grocery stores will then need to determine how to make online shopping more similar to traditional shopping in order to encourage impulse buying. In addition, other consumer behaviors will change. Consumers may become accustomed to exercising at home, signing up for fitness classes online, and more likely to purchase a home exercise bike than work out at a gym. In addition, consumers may become accustomed to having access to new movie premieres in their home and not want to return to cinemas.

Sheth (2020a) points out that after a lockdown, consumers may naturally revert to old habits. At the same time, it is likely that these habits will be modified by new regulations and procedures on how consumers shop and purchase products and services. New habits will also emerge as a result of technological advances, demographic changes, and the innovative ways in which consumers have learned to cope with the blurring of the boundaries of work, leisure, and education (Sheth, 2020a).

Awareness of changes in consumer behavior is especially important for retail stores if they want to adapt to the new economic realities that are a consequence of pandemic restrictions and constraints. The blockade and social distance to combat

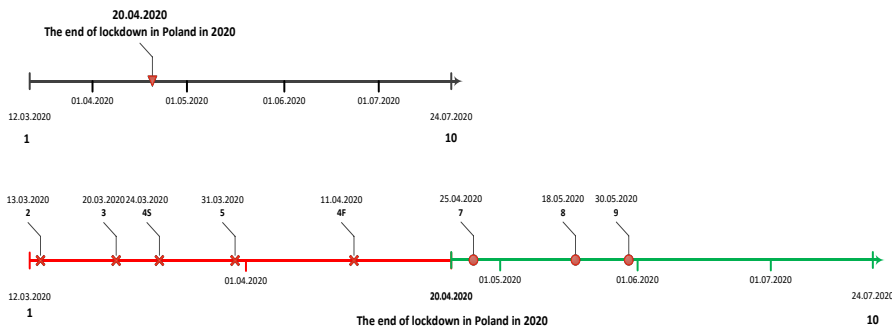
the COVID-19 virus has caused significant disruption in consumer behavior. All consumption is constrained by time and location. With flexibility of time and rigidity of location, consumers have learned to improvise in creative and innovative ways. Work-life boundaries are heavily blurred during the pandemic because people work at home, study at home, and relax at home. Since the consumer cannot go to the store, the store must come to the consumer.

As consumers adapt to staying (e.g., because of imposed quarantines) at home for extended periods of time, they are likely to adopt newer technologies that make it easier to work, learn, and consume in more convenient ways. The adoption of digital technology is likely to change existing habits. Finally, new regulations and procedures will also impose new consumption models, especially in public places such as airports, concerts, and public parks.

2. Covid 19 Pandemic in Poland

In order to fully understand the impact of Covid-19 on consumer behavior in Poland, we need to outline the chronology and scope of the introduction of successive restrictions and constraints within Poland. The Covid-19 pandemic in Poland began on March 4, 2020, when the first case of infection in Poland was reported. The first restrictions were introduced in Poland on March 10, 2020 - mass events were cancelled and the number of people at events was limited. The summer period in 2020 was characterized by a relaxation of restrictions, to reintroduce them in the autumn (Duszyński *et al.*, 2020). The events are presented in chronological order in Figure 1.

Figure 1. Research time horizon and restrictions related to Covid-19 pandemic in Poland in 2020



Source: Own elaboration.

Table 1 presents a calendar of the introduction of successive blockades that we believe affected consumer behavior during this time and the dates on which successive restrictions were lifted. The numbers in Table 1-10 correspond to the dates shown in Figure 1.

Table 1. Calendar of restrictions during the Covid-19 pandemic in Poland

No. in Figure 1	Scope of restrictions
1	An epidemic emergency was introduced.
2	Restriction of the functioning of shopping malls, only shops with food, cosmetics, cleaning products, medicinal and medical products, newspapers, construction and renovation products, articles for pets and service providers in the field of medical, banking, insurance, postal services, laundry or catering services consisting solely in the preparation and delivery of food can be open; restaurants can only provide take-out food, gyms, swimming pools, dance clubs, fitness clubs, museums, libraries and cinemas are close.
3	Declared epidemic in Poland.
4S-4F	Restriction on movement except for subsistence, health and work purposes. Restricted number of seats made available on public transport. A total ban on assembly has been imposed, 4S- means Start, 4F means Finish.
5	Limited number of customers in stores to three times the number of cash registers in the store. Closed construction big-box stores on weekends. Hours for people over 65 were introduced - from 10 a.m. to 12 p.m. only this age group could shop at grocery and big-box stores. Hotels and short-term rental places were closed. All barber shops, beauty shops, tattoo parlors and piercing salons were closed.
6	The number of people who could shop at the same time was increased. Movement for recreational purposes and access to green areas was made possible
7	Shopping malls and big box stores were opened with a limit of 1 person per 15 m ² . The ban on weekend trading for big-box construction stores was repealed. Hotels and accommodations were allowed to resume operations, except for recreational spaces such as swimming pools and fitness centers. Libraries, archives, museums and other cultural activities were reopened.
8	Hairdressers and beauticians resumed their activities. Restaurants and cafes have been opened under sanitary strictures. The limit for passengers in public transport has been raised
9	The order to cover one's nose and mouth in an open public space has been lifted. The limit of people in stores has been lifted. The ban on events of up to 150 people has been lifted. Restaurants and hotel bars have been opened. Cultural institutions - cinemas, theaters, opera, ballet - have been restored to function under sanitary restrictions. Swimming pools, gyms, fitness clubs, playgrounds and amusement parks were also opened. Fairs, exhibitions and congresses have been allowed to take place.
10	Informal deadline to end lockdown in 2020.

Source: Own creation, based on Report, (2021).

On July 24, 2020, the increase in the limits of people in the stands of sports facilities, swimming pools, fairs and conferences was announced. It can be assumed that this is the date of the end of the first round of restrictions and limitations related to the Covid-19 pandemic in Poland. On September 1, 2020, educational institutions in Poland started schooling. Our study covers this period, from March 12 to July 24, 2020.

3. Consumer Behavior During the Pandemic

Consumption depends on place and time. Consumers develop habits over time about what to consume, when and where (Sheth 2020b; Sheth and Charles, 2021).

Of course, this is not limited to consumption. It also applies to shopping, information retrieval, and post-consumer waste disposal. Consumer behavior is highly predictable and there are many good predictive models and consumer insights based on repeated past purchasing behavior at the individual level (Sheth, 2020a).

As mentioned earlier, all consumer consumption and behavior are anchored in time and place. The introduction of lockdown manifested by limitations and restrictions has strongly shaken these two foundations. Consumers' choice of where to shop has been restricted. This has resulted in location restriction and location scarcity. Mobility has also been restricted. Work, study, and shopping have shifted and localized to the home. At the same time, there is greater time flexibility because consumers do not have to follow planned schedules for going to work, school, shopping or consumption. At the same time, in Poland during the first lockdown period, hours were introduced when grocery shopping could only be done by people over the age of 65. This strongly affected the freedoms of younger people to choose their shopping times.

Sheth (2020a) identified 8 eight direct effects of the Covid-19 pandemic on consumer consumption and behavior. He also identified research gaps in the studies on the effects of the pandemic on consumer consumption and behavior. Table 2 shows the 8 direct effects of the Covid-19 pandemic on consumer consumption and behavior.

Table 1. *The direct effects of the Covid-19 pandemic on consumer consumption and behavior*

No.	Effect	Consumer behavior	Research gap
1	Creation of inventories	Consumers stockpile essential products for daily consumption, leading to temporary shortages and scarcities at points of sale.	Lack of empirical research on the economics and psychology of stockpiling in consumer behavior.
2	Improvisation	Consumers learn to improvise when there are constraints. In this way, existing habits are discarded, and new ways of consumption are invented.	Lack of systemic empirical or academic research on improvisation.
3	Pent-up demand	In times of crisis and uncertainty, the general tendency is to postpone the purchase and consumption of certain products or services. This often involves high-value durable goods.	Lack of consumer behavioral research on the nature and extent of pent-up demand.
4	Use of digital technology	Consumers, out of sheer necessity, have embraced several new technologies and their applications, for learning, work, online consultation, information sharing.	Lack of research on the impact of digital technology on changing existing consumer behavior.
5	Home shopping	Due to legislation being introduced in many countries, consumers are not allowed to go to grocery stores or malls. Instead, they shop online at home. By being able to have everything delivered home, including streaming	No empirical study of how “everything at home” affects consumer impulse buying and

		services, habits of physically visiting physical places of sale are being broken in favor of shopping in the digital space. This also increases the convenience and personalization of consumer behavior	planned and unplanned consumption.
6	Blurring work-life boundaries	Consumers are prisoners in a home with limited space and too many activities such as work, study, shopping, and socializing. This is analogous to too many needs and wants with limited resources.	
7	Meetings with friends and family	During the pandemic, family, social gatherings take place remotely, from anywhere at any time with an unlimited number of friends. Social gatherings are global. What was ad hoc event to keep in touch with is now regular and scheduled meeting to share information and experiences, including consumer experiences.	Lack of research on sociological and cultural assimilations of consumption practices
8	Discovering talent.	With more flexible time while at home, consumers experimented with recipes, practiced their talent, and enjoyed creative and new ways to play music, share knowledge, and shop more creatively online.	

Source: Own creation, based on Sheth, (2020a).

The results of a study on the impact of the Covid-19 pandemic on consumer behavior conducted in the U.S. indicate that the COVID-19 pandemic changed consumers' product needs, shopping behavior, and post-purchase satisfaction levels. For example, since the beginning of the pandemic, consumers have avoided products in public places (stores, markets, malls) and increased virtual shopping and online shopping. The results also suggest that it may now be more difficult for retailers to gain customer loyalty because consumer satisfaction has decreased (Mason *et al.*, 2020).

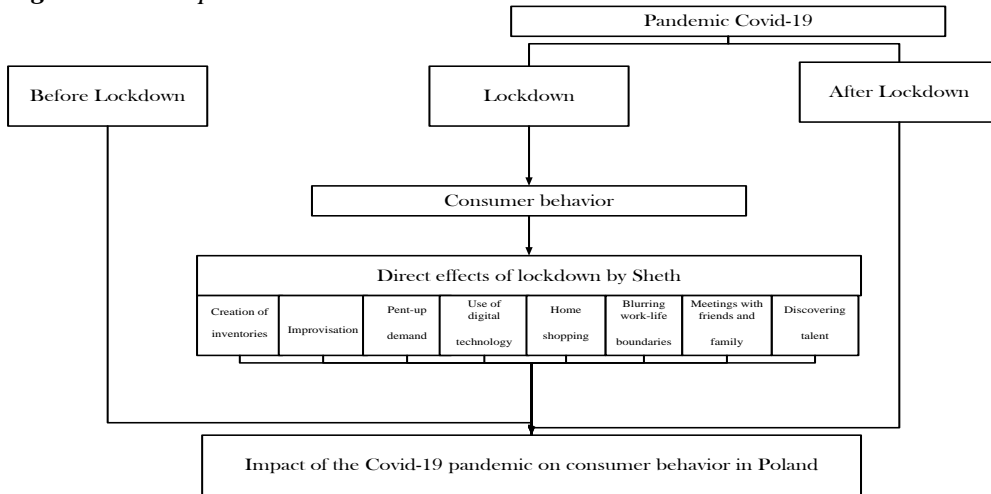
A study conducted by Brandtner *et al.* (2021) in five major retail chains in Austria, indicates that show that there was a general and significant decline in consumer satisfaction due to the pandemic. The results also show a high impact of political regulations on consumer satisfaction. Furthermore, the text-mining based analysis of evaluation comments indicate that store layout and facilities, as well as product availability and waiting time had a great impact on consumer satisfaction (Brandtner *et al.*, 2021).

4. Research Methodology

As already mentioned, the aim of our research was to demonstrate the impact of the Covid-19 pandemic on consumer behavior in Poland. We based our research on the octagon of direct effects of Covid-19 on consumer consumption and behavior proposed by Sheth (2020a). In our research we focused on such effects as Inventory creation, Improvisation, Pent-up demand, Use of digital technology, Home shopping. In the research we used survey research method and CAWI technique. We conducted the research in the second half of 2020, after most pandemic-related restrictions have been lifted in Poland.

We asked respondents mainly about their FMCG shopping habits in the period before and during the lockdown. On this basis we were able to draw conclusions about changes in consumer behavior due to restrictions and limitations caused by Covid-19. We based our research on the conceptual model shown in Figure 2.

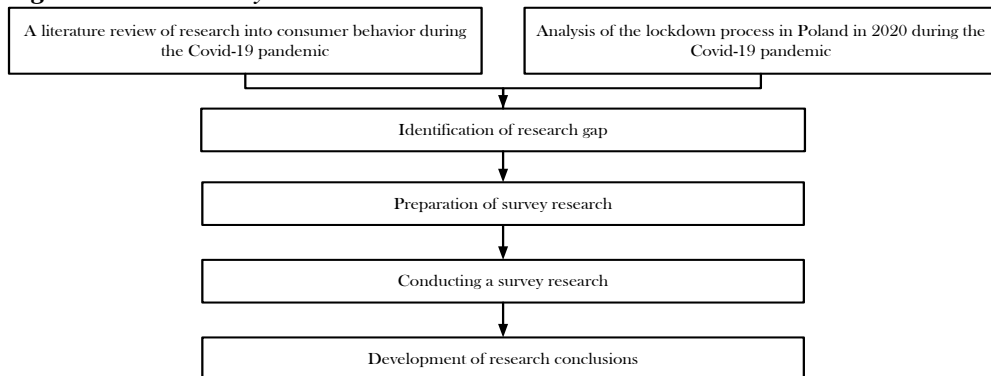
Figure 2. Conceptual model



Source: Own elaboration, based on Sheth (2020a).

Based on the conceptual model, we adopted the research cycle in this study, which is presented in Figure 3.

Figure 3. Research cycle



Source: Own elaboration.

5. Results of Preliminary Studies

The results presented here refer to 214 respondents' answers. Characteristics of the surveyed population in terms of gender, age, place of residence and education are presented in Table 3.

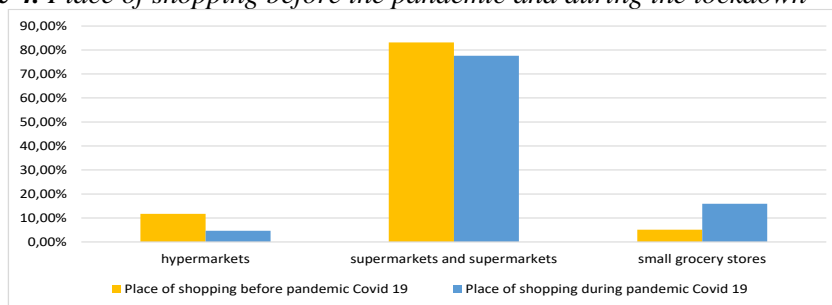
Table 3. Characteristics of the surveyed group of respondents

Population characteristic N=214		Population share
Gender	Women	57,01%
	Men	42,99%
Age	< 20	20,09%
	21-30	60,75%
	31-40	14,95%
	41-50	4,21%
Place of residence	village	23,83%
	city up to 50 000	18,22%
	city between 50,000 and 100,000	16,82%
	city between 100 000 and 500 000	7,01%
	city with more than 500 000	34,11%
Education	primary	2,80%
	vocational	32,24%
	secondary	30,84%
	higher	47,20%

Source: Own creation.

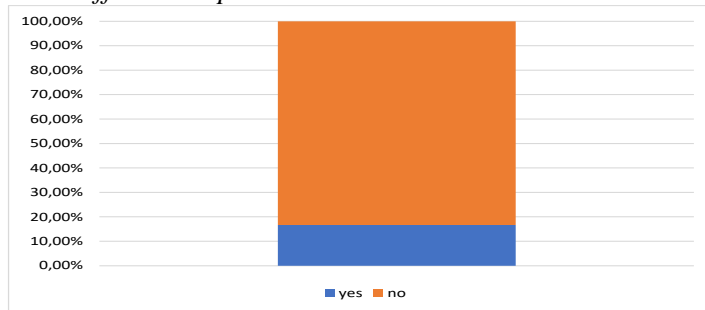
The first part of the research concerned the place and time of FMCG shopping before the pandemic and during the lockdown (Figure 4). On the basis of the obtained results - Figure 3, we can conclude that the lockdown during Covid-19 pandemic had a moderate influence on the choice of shopping place. There was a slight increase in the number of people shopping for groceries in small stores and a decrease in the number of people shopping in hypermarkets. The slight decrease in the number of people shopping at markets and supermarkets during the lockdown may be due to the fact that most respondents indicated that during the lockdown they preferred to shop quickly at more expensive small stores instead of standing in lines for a long time at market, supermarket type stores that offer lower prices - Figure 5. The results allow us to conclude that the lockdown introduced in Poland in 2020 has influenced the time and frequency of FMCG shopping. The majority of respondents resigned from daily shopping in favor of shopping once a week - Figure 6. Thus, they created stockpiles of FMCG products, buying larger quantities at a time.

Figure 4. Place of shopping before the pandemic and during the lockdown



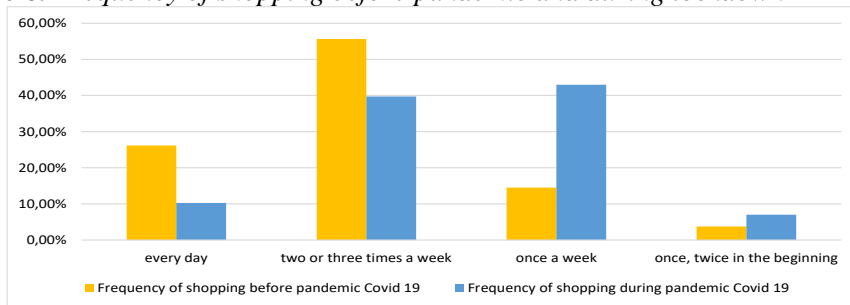
Source: Own creation.

Figure 5. Respondents' answers to the question about prefer to shop quickly at more expensive shops instead of standing in lines for a long time at market, super/hyper market stores that offer lower prices



Source: Own creation.

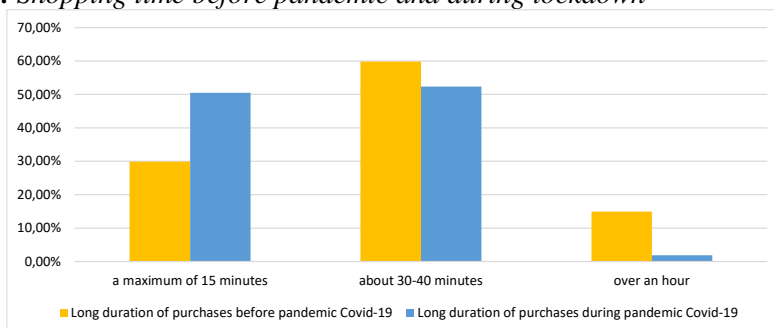
Figure 6. Frequency of shopping before pandemic and during lockdown



Source: Own creation.

The time of shopping also decreased (Figure 7) and the hours of shopping (Figure 8).

Figure 7. Shopping time before pandemic and during lockdown

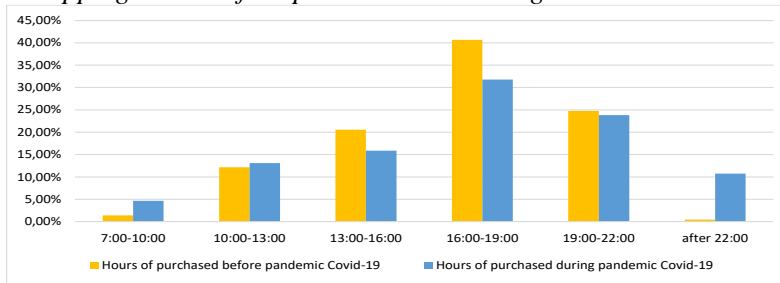


Source: Own creation.

In the second part of the study, we focused on online shopping. The results show Figure 8. We asked respondents whether the frequency of their online shopping had changed during the lockdown, with respect to more valuable goods such as:

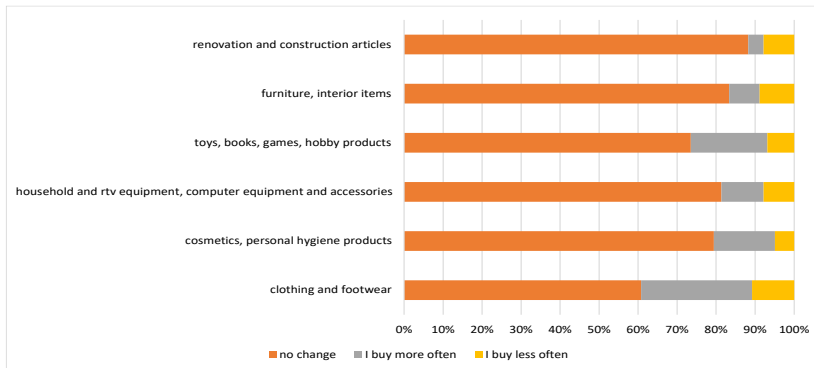
- clothing and footwear,
- cosmetics, personal care products,
- home appliances and electronics, computer hardware and accessories,
- toys, books, games, hobby products,
- furniture, home furnishings,
- renovation and construction articles.

Figure 8. Shopping hours before pandemic and during lockdown



Source: Own creation.

Figure 9. Change in online purchases of valuables before pandemic and during lockdown



Source: Own creation.

The results are surprising (Figure 9) because the majority of respondents in each of the product categories indicated that the frequency of purchasing these tangible goods during the lockdown did not change. The highest percentage of respondents declared that during the lockdown they more frequently bought clothes and shoes and toys, books, games, hobby products. The highest percentage of respondents declared that during the lockdown they more frequently bought clothes and shoes and toys, books, games, hobby products.

6. Conclusions

To summarize our research, we refer to the set of direct effects of Covid-19 pandemic on consumer consumption and behavior proposed by Sheth (2020a).

Based on our research, we confirm that the 2020 lockdown during the global Covid-19 pandemic contributed to grocery stockpiling, which is due to the fact that most respondents purchased FMCG less frequently than before the lockdown, thus buying larger quantities at a time and stockpiling. We can also confirm that in terms of grocery shopping, consumer improvisation was noticeable, manifested by the hours of shopping, from daytime hours to evening or nighttime hours, when there were fewer shoppers and the waiting time to enter the store as a result of the limitation of customers staying in the store was shorter. Our study did not confirm that the Covid-19 pandemic, induced pent-up demand for value goods and the use of digital technology for online shopping done at home.

We emphasize that our study was preliminary research. We believe that there is a need to repeat a structured study with a larger research sample. In our opinion, the aim of the research should be to bridge the research gaps identified by Sheth (2020a).

We see direction for further research in developing a list of direct effects of the Covid -19 pandemic on consumer behavior. We postulate that it should be conducted in different countries where the lockdown occurred in different ways as to the extent and duration of restrictions and constraints. Such studies will allow to determine the global impact of the global economic and economic crisis that the Covid-19 pandemic is considered.

References:

- Brandtner, P., Darbanian, F., Falatouri, T., Udokwu, Ch. 2021. Impact of COVID-19 on the Customer End of Retail Supply Chains: A Big Data Analysis of Consumer Satisfaction. *Sustainability*, 13(3), 1-18. <https://doi.org/10.3390/su13031464>
- Charm, T., Grimmelt, A., Jain, A., Robinson, K., Mandel, J., Ortega, M., Yamakawa, N., Stack, Y. 2020. Consumer sentiment is evolving as countries around the world begin to open. Available at: <https://www.mckinsey.com/business-functions/marketing-and-sales/our-insights/a-global-view-of-how-consumer-behavior-is-changing-amid-covid-19>.
- Chowdhury, P., Paul, S.K., Kaisar, S., Abdul, M.Md. 2021. COVID-19 pandemic related supply chain studies: A systematic review. *Transportation Research Part E: Logistics and Transportation Review* 148, 102271, 1-26. <https://doi.org/10.1016/j.tre.2021.102271>.
- Colleen, P.K., Rifkin, L.S. 2020. I'll trade you diamonds for toilet paper: Consumer reacting, coping and adapting behaviors in the COVID-19 pandemic. *Journal of Business Research* 117, 124-131. <https://doi.org/10.1016/j.jbusres.2020.05.028>.
- Dontho, A., Gustafsson, A. 2020. Effects of COVID-19 on business and research. *Journal of Business Research* 117, 284-289. <https://doi.org/10.1016/j.jbusres.2020.06.008>.
- Duszyński J., Afelt A., Ochab-Marcinek A., Owczuk R., Pyrc K., Rosińska M., Rychard A., Smiatacz, T. 2020. Zrozumieć COVID-19 Opracowanie zespołu ds. COVID-19 przy Prezesie Polskiej Akademii Nauk – https://informacje.pan.pl/images/2020/opracowanie-covid19-14-09-2020/ZrozumiecCovid19_opracowanie_PAN.pdf.

- Gorzelany-Dziadkowiec, M. 2020. Changes in Consumer Behavior in Times of COVID 19. *Problems of Economics and Law*, 5, 1-15.
- Grima, S., Dalli Gonzi, R., Thalassinou, I.E. 2020. The Impact of COVID-19 on Malta and its Economy and Sustainable Strategies. Available at SSRN: <https://ssrn.com/abstract=3644833>.
- Karpen, I.O., Conduit, J. 2020. Engaging in times of COVID-19 and beyond: theorizing customer engagement through different paradigmatic lenses. *Journal of Service Management*, 31(6), 1163-1174. <https://doi.org/10.1108/JOSM-05-2020-0156>.
- Khan, S., Rabbani, R.M., Thalassinou, I.E., Atif, M. 2020. Corona Virus Pandemic Paving Ways to Next Generation of Learning and Teaching: Futuristic Cloud Based Educational Model. Available at SSRN: <https://ssrn.com/abstract=3669832>.
- Mason, A., Narcum, J., Mason, K. 2020. Changes in consumer decision-making resulting from the COVID-19 pandemic. *Journal of Customer Behaviour*, 19(4), 299-321. <https://doi.org/10.1362/147539220X16003502334181>.
- Raport "Podsumowanie Lockdown-u w Polsce, Związek Przedsiębiorców i Pracodawców, Warszawa, 2021.
- Roggeveen, A.L., Sethuraman, R. 2020. How the COVID-19 Pandemic May Change the World of Retailing. *Journal of Retailing*, 96, 2, 169-171. <https://doi.org/10.1016/j.jretai.2020.04.002>.
- Samuk, G., Sidorowicz, I. 2020. Wpływ pandemii COVID-19 na zachowania konsumentów. *Academy of Management*, 4(3), 195-206.
- Sheth, J. 2020a. Impact of Covid-19 on consumer behavior: Will the old habits return or die? *Journal of Business Research*, 117, 280-283. <https://doi.org/10.1016/j.jbusres.2020.05.059>.
- Sheth, J. 2020b. *The Howard-Sheth Theory of Buyer Behavior*. New Delhi, India: Wiley & Sons.
- Sheth, J., Charles, H.K. 2021. Next frontiers of research in data driven marketing: Will techniques keep up with data tsunami? *Journal of Business Research*, Volume 125, 780-784. <https://doi.org/10.1016/j.jbusres.2020.04.050>.