The impact of the COVID 19 pandemic on the quality of food security on the polish food market

Abstract

A key event in the last two years of the global economy has been the emergence of the COVID-19 pandemic. Many organisations such as manufacturing and service companies, shops, offices, banks and, above all, medical facilities have been forced to change the way they run business. The development of the pandemic caused concern among people. The Polish society fear of contracting the disease contributed to a change in the way they did their grocery shopping.

The aim of the article is to present and characterise consumer behaviour in the way of purchasing food products on the Polish market under the conditions of the COVID-19 pandemic. The article also includes research problems. In order to achieve the specified objective, the report of CBRE Research was used. The article consists of theoretical and empirical part. In the course of the research study it was found that despite the pandemic, consumers on the Polish market did not reduce the frequency of shopping, the monetary expenditures for grocery shopping increased and the number of consumers doing their grocery shopping online increased.

Keywords: COVID-19 pandemic, quality of food security, grocery shopping.
Introduction

Among the global threats, which include environmental degradation\(^1\) climate disasters\(^2\) social problems such as hunger, poverty, unemployment, crime and armed conflict, one should also include the emergence of the COVID-19 pandemic. The outbreak of the pandemic contributed to a sharp increase in the incidence of disease for millions of people worldwide, with increased hospitalizations and deaths\(^3\). National health care systems in many European countries reached their limits and in some cases required support from other foreign health care systems. In the face of such rapidly advancing pandemic, the threat of collapse of health care systems in some European Union countries, including Poland, emerged. The change in the lifestyle of societies forced by the pandemic has become a new and previously unprecedented phenomenon. As the number of infections and deaths increased, the Polish Government decided to introduce temporary lockdowns, sanitary restrictions, isolation, quarantine and remote working.

The emergence of the COVID-19 pandemic has significantly contributed to changing consumer behaviour in many global consumer markets, including the Polish grocery market. Legal regulations on restricting the way of shopping (limits on the number of people in a shop, designated shopping hours for seniors, the obligation to wear a mask in the shop), quarantine and consumer fear of contagion in the first months of the pandemic contributed to a change in the way of shopping for food products. Before the development of the pandemic, the dominant mode of shopping was personal contact between buyer and seller. Purchases were made stationary in grocery shops, both large super and hypermarkets and small neighbourhood shops. However, from March 2020 onwards, there has been a change in the way people shop in order to ensure their health safety.

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In addition to protecting human health and life, another issue has emerged, namely guaranteeing food security⁴. According to the Food and Agriculture Organization (FAO), food security is defined as a situation in which „all people at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life”⁵.

Security is perceived by people in many ways. Thus, in the scientific literature and journalism one can find the following types of security of an object nature: military, economic, social, environmental, energy⁶. This list is not closed. There are further types of security, such as food security, sanitary security or legal security. Regardless of the types of security, it should be noted that the focus is on the human being who feels the need to be safe both at home, at work, at school or in relationships with other people⁷.

In the first weeks of the pandemic in Poland, an unprecedented mass buyout of food products, cosmetics and cleaning and disinfecting products was observed on the fast-moving consumer goods (FMCG) market. Polish society’s fear of not being able to buy basic foodstuffs has caused the Polish government to be concerned. The country’s food security is a measure of social satisfaction for the government⁸. Representatives of the government together with leading food producers in Poland appeared at a press conference assuring about the continuity of production and supply of food products to shops. Representatives of the trade and logistics industry unanimously assured that their companies are operating efficiently and there is no threat to production and supply of products to the Polish market. The production lines of the companies are working – from securing raw materials to delivery. There are also no concerns that the market will run out of products for citizens⁹.

The press conference was attended by the representatives of significant enterprises on the food market such as: Lubella, Velvet Care, Betasoap, Jeronimo Martins, Nagel Polska Sp. z o.o. Mlekovita, and Sonko.

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Guaranteeing the availability of food to the public is linked to buyers’ sense of satisfaction with the quality of sales services provided. The concept of public service satisfaction is derived from ‘customer satisfaction’, which is a measure of how well a product or service provided by a company or organisation can meet customer expectations\textsuperscript{10}.

1. Methodology of Research

The study attempts to determine consumer behaviour in the way of purchasing food products on the Polish market under the conditions of the COVID-19 pandemic. In order to achieve the intended research results, the following research problems were identified:

— What is the frequency of shopping?
— How much money is spent per month on buying groceries per person in the household?
— How much money is spent on groceries during the COVID-19 pandemic compared to before the pandemic?
— How much money is spent on groceries during the COVID-19 pandemic compared to before the pandemic, depending on where you live?
— Identify how to shop for groceries online.

In order to answer these questions, a review of the literature (both Polish and foreign) on the subject has been carried out. The literature review served as a starting point for further empirical analyses. The research part of the study was quantitative in nature and the achieved research results were presented in percentage values and were presented in a graphic form.

Consumer research conducted by CBRE Research\textsuperscript{11} between 25–28 June 2021 on a nationwide group of 1,082 people concerned the ways in which buyers shop. The first area covered by the study was the question of frequency of shopping by buyers on the Polish market. The results of the research in this area are presented in Figure 1.

From the data presented in Figure 1 it can be concluded that 42% of respondents shop 2–3 times a week. Every day or almost every day shop 37% of respondents. On the other hand, only 2% of the respondents shop less than once a month.

Another focus of the study was the amount of money spent by grocery shoppers per month per head of household.


Interpreting the data presented in Figure 2 it should be stated that 44% of respondents spend up to 500 PLN per month on groceries per household inhabitant. Respondents who spend from 501 to 1000 PLN per month on groceries per household inhabitant are at a similar level of 43%. Only 4% of respondents declare that they spend more than 1500 PLN per month on groceries per household inhabitant.

The level of monthly expenditure on groceries per household inhabitant requires additional information based on the variable defining the place of residence. Considering the different income levels of people living in small towns compared to those living and working in large agglomerations, such a clarification of data is highly justified.
Interpreting the data presented in Figure 3, it is possible to indicate significant disproportions in the size of the groups with the lowest and highest budget depending on the size of the city. In small towns with up to 20 thousand inhabitants 47% of respondents declare that they spend up to PLN 500 on groceries per month per household inhabitant. On the other hand, the number of respondents living in cities with 100,000–500,000 residents and over 500,000 residents spending up to PLN 500 per month was 37% and 39% respectively.

An interesting aspect of the conducted research was to obtain information on the amount of money spent on grocery shopping in the period before and during the pandemic. The obtained results are presented in Figure 4.

The COVID-19 pandemic caused that nearly one in five respondents – 19% – spend more money on grocery purchases during the pandemic. Most respondents – 71% – said they spent the same amount of money during the pandemic. Only 10% indicated that they spent less money on groceries during the pandemic.

The emergence of the pandemic has changed grocery shopping habits. The research conducted also addressed the issue of grocery shopping via the Internet. The results obtained in this respect are presented in Figure 5.

The pandemic situation has forced consumers to do their grocery shopping online. The results show that 13% of respondents are more likely to shop online than they were before the pandemic. However, 57% of respondents did not before the pandemic and still do not shop for groceries online.

<table>
<thead>
<tr>
<th>City Size</th>
<th>Up to 500 PLN</th>
<th>From 501 to 1000 PLN</th>
<th>From 1001 to 1500 PLN</th>
<th>Over 1500 PLN</th>
</tr>
</thead>
<tbody>
<tr>
<td>City below 20,000 residents</td>
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<td>10%</td>
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<tr>
<td>City with 20,000 to 99,000 residents</td>
<td>41%</td>
<td>12%</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>City with 100,000 to 500,000 residents</td>
<td>42%</td>
<td>9%</td>
<td>9%</td>
<td>4%</td>
</tr>
<tr>
<td>City with over 500,000 residents</td>
<td>39%</td>
<td>13%</td>
<td>4%</td>
<td>8%</td>
</tr>
</tbody>
</table>

The impact of the COVID-19 pandemic on grocery shopping and spending.

**Figure 4.** Monetary amounts spent on groceries during the COVID-19 pandemic, compared to the pre-pandemic period.

**Figure 5.** Online grocery shopping.

### 2. Discussion

The presented results of the study indicate that despite the serious risk of contracting the virus by staying in large human gatherings, such as grocery shops, consumers in the food market in Poland do not show major concerns about the pandemic and shop for groceries quite frequently. The results of the research show that 42% of respondents do their shopping 2-3 times a week and 37% do it...
every day. This state of affairs leads to the following question: do customers’ consumption needs represent a greater value in relation to health security needs? Certainly, the question posed in this way can serve as a topic for further research in the area of food and human health security.

The frequency of grocery shopping during a pandemic is associated with financial expenditure. The pandemic period did not contribute to a reduction in expenditure on grocery shopping. Monthly expenditures per household inhabitant were at the level of up to 500 PLN, as indicated by 44% of respondents, and from 501 to 1000 PLN per month – by 43% of respondents. The level of expenditure on groceries depends on the income level of Poles. According to the Central Statistical Office (Polish GUS), the average monthly salary in Poland in the enterprise sector without profit sharing in the fourth quarter of 2021 amounted to PLN 6220.80 which is about EUR 1373.\(^{12}\)

Completing the issue of spending money on groceries is the importance of where consumers live. The monthly amount of expenditure on groceries per household inhabitant depends on the place of residence. In smaller towns with up to 20,000 inhabitants, monthly spending of up to PLN 500 was declared by as many as 47% of the residents. In larger towns (from 100,000 to 500,000) and big cities (above 500,000) monthly spending of up to PLN 500 on the purchase of groceries is declared by 37% and 39% of respondents respectively.

The COVID-19 pandemic has contributed to an increase in the amount spent on grocery shopping. According to 19% of respondents, that is almost one in five respondents indicated that they spend more money on shopping during the pandemic period than in the period before the pandemic. The reason for increased spending may be the increase in prices of food products that took place in Poland as a result of narrowing of supply chains or mass purchase of food products in shops observed at the beginning of the pandemic’s development.

The COVID-19 pandemic has caused a shift in the way people shop for groceries. More consumers were shopping online. The findings show that the number of buyers shopping online has increased by 13% compared to before the pandemic.

Conclusions

The COVID-19 pandemic caused changes in the economic systems of many countries in the world. The continuity of supply of raw materials for production\(^ {13}\),


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including food production, distribution channels were broken, restrictions in production were introduced, which consequently led many companies to reduce employment and temporary stoppages in production enforced by the nationwide lockdown. In the social area previously unseen threats have also emerged, e.g. fear of losing one’s job, reduction of remuneration, falling ill, or even fear for one’s own and one’s family’s life. It can be concluded that the economic security of societies has been seriously shaken. The indicated threats also include food security related to the fear of ensuring continuous supply of food products and the way of grocery shopping.

In the face of the indicated threats, national governments should play an important role in countering emerging situations. The key duty of every government is to build trust among its own society and provide a sense of security to its citizens. Trust in state institutions makes it possible to avoid social unrest, outbreaks of panic, or mass protests in the streets of cities. Reassuring public sentiment is an important element in the fight against pandemics.

This article is not a complete solution to the existing problem of counteracting the occurrence of economic and social threats, which include the fear of guaranteeing food security of the country. Instead, it can support social institutions and food industry enterprises in counteracting the occurrence of crises related to food security concerns and food shopping patterns. The COVID-19 pandemic is still ongoing and in such a situation there is a need to monitor the food market and its availability.

Bibliography


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Wpływ pandemii COVID-19 na jakość bezpieczeństwa żywnościowego na polskim rynku spożywczym

Streszczenie


Celem artykułu jest przedstawienie i scharakteryzowanie zachowań konsumentów w sposób dokonywania zakupów produktów spożywczych na rynku polskim w warunkach pandemii COVID-19. W tekście zawarto także problemy badawcze. Do uzyskania określonego celu wykorzystano raport CBRE Research. Artykuł składa się z części teoretycznej i empirycznej. W toku przeprowadzonego studium badawczego ustalono, że pomimo trwania pandemii konsumenci na rynku polskim nie ograniczyli częstotliwości robienia zakupów, wzrosły natomiast wydatki pieniężne przeznaczone za zakupy spożywcze oraz wzrosła liczba konsumentów robiących zakupy spożywcze przez Internet.

Słowa kluczowe: pandemia COVID-19, jakość bezpieczeństwa żywności, zakupy spożywcze.