



Article The Impact of the COVID-19 Pandemic on the Behaviours of Polish Consumers in the Organic Products Market

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Abstract: The main purpose of this article is to verify whether the COVID-19 pandemic affects customers' behaviours. The examined behaviours are: buying Polish products, buying organic products, buying more at one time, paying attention to prices, asking others to go shopping, and shopping online. For this purpose, an online survey was conducted. The questionnaire was completed by 1000 Polish consumers. The collected data were analysed statistically, and it was shown that the COVID-19 pandemic has an influence on consumers' behaviours. This is particularly visible in paying attention to prices more frequently, more frequent online shopping, and more frequent purchases of larger amounts of products. Consumers are more likely to buy Polish products and organic products. The largest changes in behaviour were observed among women, people aged under 35, people with higher education, and those with the highest incomes per family member. The research identified the group of consumers who more often do online shopping, purchase more products, and more often buy Polish and organic products; this information may be used by commercial enterprises to create sales strategies. It is advisable to develop online sales and to display information about the fact that products are made in Poland, and information about their ecological origin. The value of this article is to identify the impact of the COVID-19 pandemic on consumer behaviour in the organic market in Poland, to identify groups of consumers whose behaviour has changed, and to indicate the directions of those changes.

Keywords: consumer behaviour; consumer decisions; COVID-19 pandemic; organic product market; online shopping

1. Introduction

This article was created out of the need for a different perspective on consumer behaviour in a pandemic, with particular emphasis on the Organic Products Market. With the outbreak of the COVID-19 pandemic, the purchasing needs and expectations of customers have changed, including those regarding the purchase of organic products. However, there is a lack of research that shows these changes in various groups of consumers, and which allows to set the directions of activities of commercial enterprises. The results of the analysis of the research results may have theoretical implications and practical tips for enterprises operating in a crisis situation (pandemic constraints), improving the effectiveness of the conducted activity.

There are many factors which influence consumer behaviour in the marketplace. Among them are social, economic, and cultural factors, including technological progress and availability of the Internet, which is a source of knowledge about the products on offer, and a means of purchasing. Significant factors include the ability to communicate without



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Copyright: © 2022 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (https:// creativecommons.org/licenses/by/ 4.0/). limits, and the speed at which information on the quality of products can be shared between consumers (e.g., on websites collecting opinions, on social networks, or blogs) [1,2].

Consumers currently have a high level of environmental awareness. As a result, consumers are more often driven by environmental considerations when choosing goods and services. This means that they are more likely to buy healthy food, and are more likely to take into account the protection of the natural environment, including the purchase of ecologically produced products [3].

Current trends in Polish consumption include phenomena such as growth and change in the consumption structure, the greening of consumption, social responsibility and sustainable consumption, virtualization, co-consumption, smart shopping, ethnocentrism, etc. [4]. The visible changes in the purchasing and consumption habits of buyers are also a result of globalization and the integration of the modern world. One of the contemporary phenomena affecting consumption is the COVID-19 pandemic, which, in Poland, has drastically changed the rules of operation of enterprises since March 2020. This has resulted both from provisions of the law (restriction of the freedom to conduct business—customer limits in stores, the obligation to ensure adequate sanitary conditions), as well as the behaviour of consumers in the face of the imposed lockdown and the fear of threats to life and health [5]. However, the impact of the COVID-19 pandemic on consumer behaviour, which determines the operating strategies of enterprises on the Polish market, has not been investigated in a representative sample.

The aim of the presented research is to determine how the COVID-19 pandemic has influenced the behaviour of consumers of organic products and their purchasing habits. The research examines the impact of the pandemic on consumers depending on their gender, age, education, and monthly income (independent variables). Identifying the characteristics of consumers that determined their behaviour during the COVID-19 pandemic would allow companies to focus their activities on meeting the relevant needs of their customers. This is very important both for companies whose sales fell after the onset of the COVID-19 pandemic, and for companies whose products are of greater interest. Enterprises will be able to better plan their short-term and long-term sales and promotion strategy, taking into account changes in the behaviour of potential consumers.

2. Literature Review

Observations of statements in global English-language posts on social media show that since the outbreak of the COVID-19 pandemic, people have looked for immunity boosters in food and have bought essential food in large quantities for storage. People have stockpiled as many groceries as possible. This has caused shortages in supermarkets worldwide and high levels of consumer frustration [6].

A report on research on the impact of the COVID-19 pandemic on attitudes to saving and investing [7] showed that the incomes of about 38% of respondents in Poland had decreased. Reasons for this included reduction in salaries, shorter working hours, fewer orders, loss of an additional source of income, or job loss. At the same time, the income of 4% of respondents had increased, and for 57%, it remained unchanged. Taking into account all income and expenses, as many as 49% of respondents indicated that they had less money than before the pandemic, whereas 10% had more and 41% had the same amount. As a consequence, 33% of respondents reduced some expenses, 14% increased some expenses, and for 63%, the level of expenses did not change. The situation of Italian, German, and Czech consumers is similar.

A KPMG report from 2020 [8] indicates that after the outbreak of the COVID-19 pandemic, caring for one's own safety when making purchases became more important for 58% of Poles surveyed. The pandemic also resulted in less use of cash (41% of respondents) and more frequent use of debit and credit cards. The pandemic also led to changes in spending habits in 75% of respondents; for example, in avoiding non-necessary expenses (about half of respondents). Nineteen percent of respondents declared that all non-food purchases were made via the Internet. The frequency of online purchasing increased the most for food (a 22% increase), medicines (15%), and cosmetics (10%). The study showed that the COVID-19 pandemic increased the importance of certain factors influencing consumer purchasing decisions, such as: own safety (increase by 58%), ease of shopping (increase by 41%), support for local communities (increase by 29%), and brand relation to the environment (increase by 25%).

Similar phenomena were observed in Poland. Experts from a Polish economic institute, relying on Central Statistical Office (GUS) data and estimated data on the composition of expenditure made in transactions with the use of MasterCard payment cards, indicate that after the outbreak of the COVID-19 pandemic, Polish consumers also stocked up for uncertain times. Poles bought more health and hygiene products, as well as basic food products [9]. At the same time, in the second quarter of 2020 (the first wave of the pandemic in Poland and the related introduction of trade restrictions), the total expenditure made by Poles decreased by approximately 30.9% year on year [10].

In the second half of 2020, concerns about the financial situation grew. This was a result of the threat of unemployment and an increase in inflation, which also influenced consumer attitudes. The analysis of estimated expenses according to MasterCard showed an increase in consumer interest in online shopping, which depended on the level of epidemic restrictions. The re-opening of malls and supermarkets slowed down the increases in online sales in some industries [9].

Consumer behaviour is the process of choosing, buying, using, accepting, or rejecting products, ideas, or experiences in order to meet the needs or desires of an individual or group [11]. The consumer's attitude is manifested in their actions taken in order to meet the needs related to the search, purchase, use, and evaluation of goods and services [12].

Consumption and consumer behaviour are conditioned by many factors depending on the consumer and by environmental variables [13]. Consumer-dependent (internal) determinants include income, professional activity, property and savings, the current level and structure of consumption, etc. External factors affecting consumption include the socio-economic situation of the country and the influence of the international environment, e.g., the globalization of economies, and the development of information and communication technologies [14]. The aforementioned factors create various trends in consumer behaviour, including purchasing habits in the Polish market [11]. Studies have shown relationships between pro-environmental behaviour and age, gender, place of residence, education, or material status [15].

Recently, an important topic of consumer research is the attitude of consumers towards organic products [16–20]. Organic products are products that are made in environmentally friendly processes. They are obtained using cultivation techniques that take into account both the characteristics of the final product and the production methods [21,22].

The topic of the economic and macroeconomic impact of a pandemic is not new. Researchers have previously analysed changes in consumer behaviour caused by pandemics. For example, in the first decade of the 21st century, analyses were made of the possible impact of an influenza pandemic on the UK. These indicated the possibility of both shortterm and long-term changes in consumption behaviours, the sources of which include the duration of illness and the desire to avoid illness [23,24].

The outbreak of the COVID-19 pandemic again drew researchers' attention to the issue of changes in consumer behaviour under the influence of the epidemiological threat. As a result, various studies have been conducted both in Europe and around the world, e.g., [24–32].

Studies of the impact of the COVID-19 pandemic on consumer behaviour in Europe have shown "significant rises in shopping online and bulk buying, as well as net increases in consumption across almost every food category" [33]. Research shows a change in the volume of purchases of products in various categories. Larger changes in product consumption during the pandemic are observed in the 18–35 age group, whereas the smallest changes are seen in the 55+ age group. One study showed that buying locally produced food had become more important to 35% of respondents since the COVID-19

pandemic, and about 87% of them declared that they would continue to purchase locally produced food [33].

Following the COVID-19 pandemic, many companies moved their businesses online [34]. Researchers notice that after the outbreak of the COVID-19 pandemic, consumers have shifted their buying habits away from brick-and-mortar stores towards online stores [35,36]. Moreover, they started hoarding food—buying more at one time [35]. The COVID-19 pandemic has changed consumers' mentality, and could have caused an increase in their consumption of organic food [17,37–40]. Hence, based on the literature, previously conducted research, and consumer observations, behaviours were indicated, the intensity of which could have been changed under the influence of the COVID-19 pandemic. These were: buying native (Polish) products, buying organic products, buying more at one time, paying attention to prices, asking others to shop, and buying online. It has not been fully investigated whether these behaviours affect all groups of consumers to the same extent. Taking into account the above considerations, the following research hypotheses were formulated:

H1: *There is a correlation between declared changes in consumer behaviour in the organic products market and the gender of respondents.*

H2: There is a correlation between declared changes in consumer behaviour in the organic products market and the age of respondents.

H3: There is a correlation between declared changes in consumer behaviour in the organic products market and the level of education of respondents.

H4: There is a correlation between declared changes in consumer behaviour in the organic products market and the monthly income of respondents.

H5: There is a relationship between declared changes in consumer behaviour in the organic products market and the place of residence of respondents.

To verify the accuracy of the hypotheses, the following statistical methods were selected: the $\chi 2$ test and analysis of the Spearman's correlation coefficients' statistical significance.

3. Materials and Methods

3.1. Research Tool

The research tool used was an online survey. A diagnostic survey makes it possible to verify whether a phenomenon selected for a study occurs. It also allows one to determine the degree of intensity of the studied phenomena [41,42]. The respondents described how their purchasing decisions were influenced by the COVID-19 pandemic. They rated the changes in the frequency of their behaviour on a scale from 1 to 5: 1 for much less frequently, 2 for less frequently, 3 for no change, 4 for more frequently, and 5 for much more frequently (5-point Likert scale). Based on a literature review and researchers' observations, the following statements (dependent variables) were assessed:

- 1.1. I buy Polish products.
- 1.2. I buy organic products.
- 1.3. I buy more at one time.
- 1.4. I pay attention to prices.
- 1.5. I ask others to buy for me.
- 1.6. I shop online.

The literature shows that these dependent variables can be influenced by the respondents' characteristics—their gender, age, the level of education, the monthly income, and the place of residence of respondents (independent variables). The correctness of the research questionnaire (and the way of measurement of the variable) was verified in pilot studies conducted among 10 experts. This study aimed to make a broad analysis of consumer behaviour in various markets, and made use of some of the studies carried out on consumer behaviour in Poland after the outbreak of the COVID-19 pandemic. The research questionnaire was distributed by a research agency among the participants of the Opinion Research online panel (https://www.badanie-opinii.pl/ (accessed on: 19 April 2022)). The research agency was responsible for collecting the data in accordance with scientific ethics and legal regulations. The size of the research sample results from the population size, confidence level ($\alpha = 0.95$), population proportion (0.5), and margin of error (3%).

3.2. Research Participants

The participants in the research were Polish consumers. The online questionnaire was completed by 1000 respondents representing the Polish population, including 501 women and 499 men. Among them, the following age groups were distinguished: aged up to 24 years, aged from 25 to 34, aged from 35 to 44, aged from 45 to 54, aged from 55 to 64, and aged 65 or more. Respondents were also grouped by place of residence: villages and towns with a population of up to 100,000; towns with 100,000 to 500,000 inhabitants; and cities with more than 500,000 inhabitants. Groups of respondents were also defined based on the level of education (primary, lower secondary, secondary, and higher) and the amount of monthly income. The structure of the study group is presented in Table 1. The structure of the group reflects the structure of the population, based on the percentage of people using the Internet, broken down by age and gender (based on the report from the Public Opinion Research Centre on the use of the Internet [43]).

Characteristic Number of Respondents Percentage (%) Gender Male 499 49.9 501 50.1 Female Age 127 12.7 Less than 24 241 24.1 From 25 to 34 years From 35 to 44 years 258 25.8 From 45 to 54 years 168 16.8 From 55 to 64 years 135 13.5 65 years and above 71 7.1 Education 10 Primary school 1 Lower secondary school 36 3.6 Secondary school 514 51.4Higher school 440 44 Monthly income (PLN per person) Under 1000 100 10 From 1100 to 2000 351 35.1 From 2100 to 3000 34.7 347 From 3100 to 4900 150 15 Over 5000 52 5.2

Table 1. The structure of the study group.

3.3. Methodology

This study examined the impact of the COVID-19 pandemic on selected consumer behaviours. A general analysis was made of the frequency of selection of particular answers to the questions posed to the respondents. Moreover, the $\chi 2$ test was used to check the relationship between the answers to the questions and the characteristics of the respondents (in the case of small groups, the $\chi 2$ test with Yates' correction was applied). The following characteristics of respondents were taken into account: gender, level of education, place of residence, age group, and average income per person (independent variables). A null hypothesis of lack of dependence between the groups (as defined in Table 1) was tested against the alternative hypothesis that such a relationship exists. In addition, the occurrence of correlations between the answers to different questions was examined. Spearman's R-rank coefficient was used to determine the correlations. If the absolute value of this coefficient does not exceed 0.1, the correlation is very-weak-to-nonexistent. Absolute values between 0.1 and 0.3 indicate a weak correlation. The significance level p = 0.05 was adopted for the entire analysis. Statistical analysis was performed using the Statistica program.

4. Results

The research show that the COVID-19 pandemic influenced consumer behaviour in various ways. For approximately half of the respondents, it did not change the frequency of occurrence of the studied behaviours. However, for some of the respondents, it caused an increase or decrease in the frequency of these behaviours. Table 2 shows the respondents' answers to the questions posed.

| | Change in Frequency [% Respondents' Answers] | | | | |
|---|--|--------------------|----------------------------|--------------------|-------------------------|
| Behaviours | Much Less Frequently | Less Frequently | as Frequently as before | More Frequently | Much More Frequently |
| Change in the frequency of purchases of Polish products by respondents | 1 | 2 | 55 | 28 | 14 |
| Change in the frequency of purchases of organic products by respondents | 2 | 4 | 61 | 24 | 9 |
| Change in the frequency of purchases of larger amounts of products | 2 | 4 | 45 | 34 | 15 |
| by respondents Change in the frequency with which | 1 | 3 | 37 | 35 | 24 |
| change in the frequency with which | 17 | 10 | 56 | 10 | 5 |
| shopping for them | 17 | 10 | 36 | 12 | 5 |
| change in the frequency of online shopping by respondents | 2 | 3 | 40 | 37 | 18 |

Table 2. Respondents' answers to the questions posed.

The survey showed that the COVID-19 pandemic led to an increased interest in purchasing domestic products for 42% of respondents. This may be due to the willingness of consumers to support domestic entrepreneurs who find themselves in a more difficult situation due to the restrictions introduced. Another reason for the lower interest in imported products may be the fear that products from countries with a high number of COVID-19 infections could transmit the virus.

The survey showed that the COVID-19 pandemic did not reduce interest in organic products—as many as 61% of respondents bought organic products to the same extent, and 33% of respondents bought such products more often than before. This means that consumers' existing pro-ecological attitudes are not easily susceptible to the influence of external factors.

The COVID-19 pandemic caused customers to buy larger quantities of products, as was declared by as many as 49% of respondents. This may be due to the desire to limit the possibility of infection by minimizing the number of interpersonal contacts.

The COVID-19 pandemic caused increases in the prices of many specific products, such as masks, disinfectants, and sewing machines. The prices of food products and services (e.g., dental services) also increased. Consequently, it is understandable that buyers focus more on prices. As many as 59% of respondents indicated that they paid more attention to prices than before.

The changes in the frequency with which respondents asked others to make purchases are interesting. Twenty-seven percent of the respondents asked others to make purchases less often than before—this may result from a desire not to expose others to infection while shopping. At the same time, 17% of respondents asked others for help with shopping more often, which is probably related to concern for their own health, and applies to people

from groups at higher risk of developing the disease and experiencing a severe course of the disease.

The survey showed that as many as 55% of respondents were shopping on the Internet more often or much more often, which should also be considered a natural consequence of the pandemic. Restrictions on the operation of physical stores and the desire to limit social contacts resulted in an increased level of interest in online shopping. Only a few respondents (5%) made purchases over the Internet less frequently. The results confirm the growth in e-commerce web traffic that has been observed in Poland and globally. In June 2019, there were 16.2 billion visitors to shopping sites worldwide, whereas in June 2020, there were almost 22 billion [44].

The research verified the existence of relationships between the answers to the questions and the characteristics of the respondents. Table 3 shows the results of the χ 2 test and Spearman's correlation coefficients for the questions whose answers are correlated with respondents' gender, and which are statistically significant (p < 0.05).

Table 3. Results of the χ 2 test and Spearman's correlation coefficients between answers to questions and the respondents' gender.

| Statement | χ2 | p | R Rank Spearman | p |
|--------------------------------|-------|--------|-----------------|--------|
| 1.1. I buy Polish products | 12.02 | 0.0172 | -0.096 | 0.0024 |
| 1.2. I buy organic products | 14.67 | 0.0054 | -0.073 | 0.0216 |
| 1.3. I buy more at one time | 25.85 | 0.0003 | -0.136 | 0.0001 |
| 1.4. I pay attention to prices | 15.51 | 0.0038 | -0.114 | 0.0003 |
| 1.6. I shop online | 18.92 | 0.0008 | -0.103 | 0.0011 |

The research showed that after the onset of the COVID-19 pandemic, women's shopping habits changed more than men's. Women pay more attention to organic products. Almost 47% of female respondents purchased Polish products more frequently. Moreover, women are more likely to buy organic products—almost 37% buy them more or much more often. The COVID-19 pandemic has also had a greater impact on women's behaviour in terms of shopping volume and price checking. As many as 55.9% of the women surveyed bought larger amounts of products more frequently or much more frequently, and over 64% of them more often paid attention to the prices of the products they bought. The survey also showed that over 61% of female respondents shopped online more often.

The survey showed the existence of a relationship between changes in consumer behaviour and the age of the respondents (Table 4). The COVID-19 pandemic had the greatest impact on the purchasing habits of respondents under 24 and those aged 25–34. Fifty-two percent of people under the age of 24 and 57.7% of people aged 35–44 declared that they shopped more frequently. At the same time, over 60% of the two youngest groups of research participants, i.e., all respondents under 34, paid more or much more attention to prices. The research showed that the frequency of online shopping increased for 63.8% of the youngest respondents, whereas in the group of people aged 65+, 40.8% of the respondents reported more frequent online purchases.

Table 4. Results of the $\chi 2$ test and Spearman's correlation coefficients between answers to questions and the age of respondents.

| Statement | χ2 | p | R Rank Spearman | р |
|--------------------------------|-------|--------|-----------------|--------|
| 1.3. I buy more at one time | 49.04 | 0.0003 | -0.081 | 0.0103 |
| 1.4. I pay attention to prices | 19.15 | 0.2612 | -0.090 | 0.0044 |
| 1.6. I shop online | 25.98 | 0.1667 | -0.110 | 0.0005 |

The analysis of the χ^2 test results and Spearman's correlation coefficients confirmed the existence of a relationship between changes in consumer behaviour and the level of education of respondents (Table 5). Larger one-off purchases during the COVID-19 pandemic were made more often by 55.5% of respondents with a university education, and by 50% of respondents with primary or lower secondary education. More frequent purchases were also declared by 42.8% of people with secondary education. The research shows that a higher level of education also translates into increased interest in online shopping. Almost 70% of respondents with higher education declared that they made online purchases more often, compared with 51% of those with secondary education, and less than 44% of those with lower secondary or primary education.

Table 5. Results of the $\chi 2$ test and Spearman's correlation coefficients between answers to questions and the level of education of respondents.

| Statement | χ2 | p | R Rank Spearman | p |
|-----------------------------|-------|--------|-----------------|--------|
| 1.3. I buy more at one time | 22.59 | 0.0314 | 0.117 | 0.0002 |
| 1.6. I shop online | 28.57 | 0.0007 | 0.107 | 0.0007 |

The research also showed a correlation between changes in consumer behaviour and respondents' monthly income (Table 6). Among all respondents, 46.2% declare more frequent purchases of organic products. Only 22% of respondents in the lowest income group indicated a greater interest in organic products, and 20% of that group declared that they purchased such products less frequently. This can be explained by the deterioration of the financial situation of this group of respondents.

Table 6. Results of the χ^2 test and Spearman's correlation coefficients between answers to questions and the monthly income of respondents (per person in the family).

| Statement | χ2 | p | R Rank Spearman | p |
|-----------------------------|-------|--------|-----------------|--------|
| 1.2. I buy organic products | 39.57 | 0.0009 | 0.102 | 0.0012 |
| 1.6. I shop online | 19.53 | 0.2420 | 0.789 | 0.0126 |

The analysis of Spearman's correlation coefficients showed a very strong correlation between income and a change in the frequency of making online purchases. The analysis of the frequency of responses showed that respondents with incomes above PLN 2100 per person were more interested in online shopping.

The research did not show any correlation between the answers to the questions and the place of residence of respondents. No dependence was found between the COVID-19 pandemic and changes in the frequency with which respondents asked others to do shopping. Thus, using statistical methods (the $\chi 2$ test and Spearman's correlation coefficients), Hypothesis 5 was verified negatively, and Hypotheses 1–4 were verified positively (Table 7).

Table 7. The results of the hypothesis tests.

| Hypotheses | Verification |
|--|--------------|
| H1: <i>There is a correlation between declared changes in consumer behaviour in the organic products market and the gender of respondents.</i> | positive |
| H2: There is a correlation between declared changes in consumer behaviour in the organic products market and the age of respondents. | positive |
| H3: There is a correlation between declared changes in consumer behaviour in the organic products market and the level of education of respondents. | positive |
| H4: There is a correlation between declared changes in consumer behaviour in the organic products market and the monthly income of respondents. | positive |
| H5: <i>There is a relationship between declared changes in consumer behaviour in the organic products market and the place of residence of respondents.</i> | negative |

5. Discussion

A study conducted by G. Samuk and I. Sidorowicz [45] on a group of 136 students at Bialystok universities showed that shopping behaviour changed in 63% of the surveyed women and 47% of men. The most frequently indicated change in shopping habits after the outbreak of the pandemic was an increase in the frequency of online shopping. A limitation of that study was the selection of the research sample, which included only people aged 18–26 with secondary and higher education. For a differently selected group (different age and level of education), changes in behaviour might have occurred to a different degree and concerned other aspects of consumption.

Other research showed that the COVID-19 pandemic changed buying habits of 64% of consumers from the region of Delhi-NCR (India). They focused more on health and essential needs. Consumers were more likely to try other brands due to the unavailability of products in the market. Seventy-nine percent of respondents tried or moved to online shopping, but 61% of consumers plan to buy in traditional and online stores post-pandemic [46]. The increased interest of consumers in online shopping during the COVID-19 pandemic has also been shown by other studies [47–49].

So far, research has been conducted on consumer behaviour in the organic market regarding attitudes to buying organic food in selected countries in Central Europe. The current research was conducted in 2019 on a total sample of 2800 respondents in the Czech Republic, Slovakia (Central Europe, with a relatively new organic food market), and Germany (a traditional Western Europe country with a mature food market) [50]. The results showed differences relating to the nationality of the respondents; thus, there is a reason to repeat similar research in the international community, which may be a further direction of research. In a pandemic situation, consumers in the organic products market were also surveyed. Consumers care more about the welfare of their families, and began to appreciate products associated with a healthy lifestyle (organic products) [17].

The studies described in the literature did not take into account changes in interest in organic products, and did not examine the correlation between characteristics of the respondents and their responses. Therefore, it was considered important to investigate the impact of the COVID-19 pandemic on the purchasing habits of the entire population by selecting a representative group to participate in the research. This made it possible to identify the groups of people who changed their behaviour the most and the least. The research carried out previously provided an overview of changes in European consumer behaviour under the influence of the COVID-19 pandemic, but did not include analysis of the degree of changes in consumer behaviour in groups distinguished by gender, age, income, or education. An in-depth analysis of consumer behaviour will allow companies to better segment the market and implement appropriate marketing strategies. The research results may also be helpful in the search for new approaches to doing business, including e-commerce [51].

The results confirmed the truth of four of the research hypotheses. The study showed that women's purchasing habits changed more than men's under the influence of the COVID-19 pandemic. This is reflected in more frequent purchases of Polish products, more frequent purchases of organic products, an increase in the volume of one-off purchases, greater attention to prices, and more frequent online purchases. The largest change in shopping habits due to the COVID-19 pandemic is observed among the respondents declaring the highest incomes. The existence of a relationship between declared changes in consumer behaviour in the organic products market and the age of respondents was also confirmed.

6. Implications and Conclusions

Statistical analysis of the data shows that the COVID-19 pandemic has influenced consumer behaviour. Most of the respondents changed the frequency with which they paid attention to prices (63% of respondents), the frequency of online shopping (60%), and the frequency of purchases of larger amounts of products (55%). A change in the frequency of

purchases of Polish products was reported by 45% of respondents, whereas 44% reported a change in the frequency with which they asked others to do shopping, and 39% declared a change in the frequency of purchases of organic products. The identification of changes in consumer attitudes is important for commercial enterprises, which should take account of such changes in their business activity.

6.1. Practical Implications

The purpose of this article was to investigate how the COVID-19 pandemic has influenced the behaviour of consumers of organic products and their purchasing habits. It is a goal that will allow the design of new management solutions for enterprises that offer organic products to their customers. These companies will be able to conduct their activities with high efficiency despite the crisis situation. Recommendations to companies resulting from this study are to develop online sales, and to ensure better labelling of products made in Poland and ecological products.

6.2. Theoretical Implications

The study of how the COVID-19 pandemic has influenced the behaviour of consumers of organic products and their purchasing habits will allow the expansion of knowledge in the field of consumer behaviour. It will be possible to design new theoretical models in this area. It is advisable to repeat the research to see if the observed changes in consumer behaviours are permanent new habits or a temporary response to the duration of the COVID-19 pandemic. It is also possible to plan and design broader international research on this subject. This article also contributes to the discussion on the methods and principles of qualitative consumer research.

6.3. Limitations of the Research

The present research does not show whether the changes in consumer behaviour are permanent and will persist after the pandemic ends. It would be useful to conduct further studies to verify whether the extension of the duration of the pandemic will exacerbate or moderate changes in consumer behaviour.

The research covered only selected consumer behaviours (considered to be dominant on the basis of observations and the subject literature), whereas the COVID-19 pandemic may also have changed other consumer decisions.

Another limitation of the research is the fact that other factors (not related to the COVID-19 pandemic), such as changes in family situation (enlargement/reduction of the family) or professional situation (loss of job/finding a new job), may also have influenced the changes in consumer behaviour.

The research concerns only the behaviour of Polish consumers, and it is not known whether the practical implications will be appropriate also for companies operating in the international arena. Hence, further research directions are the comparison of the results with consumers from other countries, in order to obtain broader research implications that can be applied to enterprises operating in different countries.

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