



Research Article

Is the COVID-19 Pandemic the Reason for Changes in Consumer Behaviour?

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Abstract

COVID-19 pandemic was the main reason last year that determined changes in our behavior. COVID-19 changed people's behavior, and its effects will be long-lasting. We had become more nervous and unsocial. But, on the other hand, we were more careful with what we eat during the lockdown period, and we used defensive behavior to protect against viruses, also during the lockdown period. But, was this pandemic situation the main cause of changes in our lives? Was our behavior good before the COVID-19 pandemic? When the COVID-19 pandemic started, we began to consume fresh food products to have a healthy body to fight the virus. Why before this period we had also a high consume of everything? This article will study if there exists a relationship between fresh food consumption and birth rate between 2016-2021, consumer income between 2016-2021, consumer expenditure between 2016-2021, consumer confidence index between 2016-2021, and the number of job vacancies per 1000 persons between 2016-2021, in the context of COVID-19 pandemic. Also, this article will see if consumers' behavior changed during this pandemic.

Keywords: COVID-19, consumer behavior, correlation, crisis situation

Introduction

The consumer is the main element for any company, and their behavior is significant for marketing (Hasan et al., 2021). By studying consumer behavior, you can understand and predict purchasing decisions for various products or services (Wiloso et al., 2021).

Consumer behavior represents the decisions that lead to the purchase and use of goods and services to satisfy needs.

Consumer decisions also include the processes that precede and determine them (Petrescu, 2008). All choices are related to consumer decisions, but they are also a significant component of human economic behavior (Balaure, n.d.).

As early as 1990, the American Marketing Association (AMA) considered that consumers' lives influence their purchasing decisions. The influence of the consumer's life can be seen in the dynamic relationships of interactions, knowledge, behaviors, and

events that the consumer encounters when making a purchase decision (Vernerová, 2021).

Consumer behavior changed a lot in the last 20 years. These changes are demonstrated by younger generations of consumers adapting to new market demands (Filip and Voinea, 2011).

The buying behavior of today's consumers consists of two categories of activities: pre-comparison activities and post-comparison activities (Hansen et al., 2004).

These consumption habits are also a decision-making process that involves the use of available resources such as energy, time, and money, i.e. resources allocated to the consumption process (Solomon et al., 2013).

The consumer's consumption habits and various external and internal stimuli, marketing stimuli, and/or physiological factors, psychological factors, economic factors, social factors, or consumer preferences can be observed and analyzed (Petrescu, 2008).

The literature that has researched this topic argues that consumer behavior is a complex pattern for buying that involves three dominant external influences: cultural influence, social influence, and economic aspects of the consumption environment (Vázquez-Martínez et al., 2021).

Consumer behavior involves the study of individuals, groups, or organizations that purchase products, services, experiences, or ideas to satisfy their needs and how these processes have influenced the consumer and society. The role that consumers play today is crucial to the survival of businesses (Durra and Jalal, 2010).

This article aims to analyze the impact of the COVID-19 pandemic on fresh food consumer behavior.

This impact may be analyzed in terms of an increase or a decrease in fresh food

products' consumption.

This research has several parts.

The first part is an introduction. Studying the relationship between consumer behavior, fresh food, and the COVID-19 pandemic is the second part of the article. The 3rd part of the study is the methodology of the paper. The results and discussion are the 4th part of the research. And the last part of the study is the conclusions.

The correlation between consumer behavior, fresh food products and the Covid-19 pandemic

Over the past 60 years, more than 400 crises have occurred in about 200 countries around the world, causing changes in consumer behavior (Duquenne and Vlontzos, 2014; Dutt and Padmanabhan, 2011).

The literature has studied the changes produced in consumer buying behavior when different crises occur (Vázquez-Martínez et al., 2021).

These situations, regardless of their nature, have caused difficult and stressful periods in people's lives (Nistorescu and Puiu, 2009), manifested by the consumer adopting different attitudes than normal (Flatters and Willmott, 2009). All the changes that have occurred in people's consumption behavior have been caused by transformations produced at the cognitive level (Balaure, n.d.), which is specific to these kinds of situations.

The interesting part is that all the changes that occurred during crises led to the formation of new consumption habits (Filip and Voinea, 2011), at least at a theoretical level. These changes have been caused by two factors that influence and shape consumer behavior: attitude to risk and perception of risk, causing new consumer typologies to emerge, see Table I, (Amalia and Ionut, 2009):

Table I - Types of consumers

Types of consumers	Risk attitude	Perceptions of risk
Panicked consumers	Increased ↑	Increased ↑
Prudent consumers	Increased ↑	Low ↓
Concerned consumers	Low ↓	Low ↓
Rational consumers	Low ↓	Increased ↑

Source: processing of Amalia and Ionut, 2009

However, contrary to the changes and emotional impact occurring during crises, research on consumer behavior has confirmed that people should behave more rationally during crises (Theodoridou et al., 2017). This rarely happens because consumer behavior is different from one crisis to another and unfortunately, people do not learn from past mistakes. Even though every crisis has had something specific, there have always been two main needs that people needed to satisfy: the need to sleep and the need to eat.

About the need to sleep, not much can be said; but the need to eat can be dealt with from many perspectives.

Economics has studied this consumer behavior and called it food consumption behavior.

What is food consumption?

Food consumption is the fulfillment of certain physiological requirements by satisfying certain needs. The satisfaction of these physiological requirements is achieved by feeding on various foods (Diaconescu, 2016). The role of food consumption is to provide the consumer with a dietary balance that will help them to lead a healthy life (Constantin, 2007).

During the COVID-19 pandemic, during the lockdowns, some factors led to a change in consumer behavior. The influence of factors on consumer behavior was manifested in the increased sales of fresh food products and medicines.

Why did consumers focus on fresh food products?

In the consumer mindset, the consumption of fresh food products forms a defense mechanism. The COVID-19 crisis has supported and promoted the consumption of fresh food products for their health benefits. On the other hand, all the support and promotion of fresh food products had also negative aspects caused by the reluctance imposed against the spread of COVID-19 (Yegbemey et al., 2021).

This crisis came with a series of new consumption habits.

One of the habits that emerged during the outbreak of the COVID-19 pandemic caused by the establishment of lockdowns was the creation of stocks.

To ensure food security, consumers behaved differently before COVID-19. The consumer influenced by the effects of the COVID-19 crisis took a defensive approach and started to buy larger quantities of fresh food products and store them. This behavior was by the fear of shortages, high prices for these products, and the inability to purchase them due to mobility restrictions imposed by the authorities (Baker and Refsgaard, 2007; Su, 2010). The fear in people's minds was just the manifestation of a complex and dangerous behavior created over many years. This behavior was fuelled by a series of motivations and psychological processes specific to such situations (Dholakia, n.d.), and used only at such times.

Storing a product means keeping it according to its characteristics for a while. Storage created a demand shock. The shock was caused by the sudden increase in sales volume and lack of supply, leading to the temporary non-existence of some products

(Wang et al., 2020), but also increased wastage (Ngoc Long and Khoi, 2020). The start of the COVID-19 pandemic surprised producers, suppliers, traders, and consumers, partially disrupting the whole marketing process.

Thus, COVID-19 or any similar situation that we will face in the future is a challenge for producers of fresh food products (Vernerová, 2021).

Understanding consumer stocking behavior in emergencies can provide important insights to authorities, who can adapt response strategies for such moments. Concerns about food safety and consumer behavior often increase when emergencies occur, which is a shock to the food market. To avoid such moments, as well as to cope with them, information about stocking behavior and consumer preferences in emergencies should be studied (Wang et al., 2020), and used to create safe plans.

Methodology

This article analyzes changes in consumers' behaviors toward fresh food products before the COVID-19 pandemic and during the Covid-19 pandemic.

The present study is quantitative research. This study is also a desk research and uses secondary sources of information.

Data used are shared by the portal www.euromonitor.com and are from 2016 to 2021.

The statistical method used is Spearman's correlation. The correlation was realized in SPSS software.

Spearman's correlation is a non-parametric measure of rank correlation that determines whether there is a relationship between two or more variables (Cătoi et al., 2009).

Spearman's correlation measured the association between ordinate variables.

Spearman's correlation is a method that thoroughly determined how powerful the

connection between two variables or two ranks is (Cătoi et al., 2009).

The value of the coefficient is determined by the formula:

$$r_s = 1 - \frac{6 \sum d_i^2}{n \cdot (n^2 - 1)}$$

Where d_i is the difference between the characteristics correlated for the analyzed subject and n is the number of analysed subjects (Cătoi et al., 2009).

The value of Spearman's correlation is:

$$r_s = 1 - \frac{6 \sum d_i^2}{n \cdot (n^2 - 1)} = 1 - \frac{6 \cdot 32}{10 \cdot (100 - 1)} = 0,86$$

The correlation coefficient of Spearman can be between +1 and -1, and the result of correlation can be positive or/and negative (Cătoi et al., 2009).

In this research, the year 2016 represents the point of star for this study. The year 2016 was not a significant event in Bulgaria, Hungary, and Romania.

The years 2017, 2018, and 2019 are significant because we can see the evolutions of independent variables and the evolution of dependent variables.

The years 2020 and 2021 are also significant because the people had changed their behavior because of the COVID-19 pandemic.

The countries analyzed in this research are Bulgaria, Hungary and Romania.

This study has a dependent variable and four independent variables.

The dependent variable in this study is the consumption of fresh food kilogram per person between 2016-2021.

The independent variables of this research are: the live birth rate at 1000 persons, consumer expenditure, index of consumer confidence, disposable incomes, and the number of job vacancies at 1000 persons.

The dependent variable, the consumption of fresh food products per person between

2016-2021, refers just to the agro-food products fresh and unprocessed (Euromonitor International Ltd., n.d.).

The birth rate is an independent variable and refers to the annual number of birth in life at 1000 persons (Euromonitor International Ltd., n.d.).

The independent variable, the index of consumer confidence, measures the confidence of consumers about their present situation and their future situation (Euromonitor International Ltd., n.d.).

The independent variable, consumer expenditure for food products, presents what type of agro-food products were bought to be consumed at home (Euromonitor International Ltd., n.d.).

The independent variable, disposable

incomes, represents the disposable incomes of consumers after taxes (Euromonitor International Ltd., n.d.).

The number of job vacancies is the last independent variable of this research. The variable refers to an available job immediately in the shortest time possible (Euromonitor International Ltd., n.d.).

Through the analysis of the relationship between dependent variables and independent variables, we can see if there exists a connection between them.

The significant results will be marked with *, where $\alpha = 0,01$.

Results and discussions

For Bulgaria, we have the following variables, see Table II:

Table II - The dependent variable and the independent variables from Bulgaria

Year	Bulgary fresh food kilogram per capita 2016-2021	Bulgary live birth rate per 1000 population 2016-2021	Bulgary consumer expenditure on food BGN 2016-2021	Bulgary consumer confidence index 2016-2021	Bulgary disposable incomes BGN 2016-2021	Bulgary numbers of job vacancies per 1000 population 2016-2021
2016	226	9	1,532	-23	7,786	20
2017	231 - ↑	9 - →	1,621 - ↑	-20 - ↑	8,423 - ↑	20 - →
2018	237 - ↑	9 - →	1,727 - ↑	-20 - ↑	9,309 - ↑	21 - ↑
2019	242 - ↑	9 - →	1,798 - ↑	-24 - ↓	9,793 - ↑	20 - ↓
2020	247 - ↑	9 - →	1,911 - ↑	-29 - ↓	9,790 - ↓	17 - ↓
2021	251 - ↑	8 - ↓	2,068 - ↑	-23 - →	10,893 - ↑	18 - ↑

Source: processing of Euromonitor International Ltd., n.d.

After performing the Spearman correlation, two significant results were found, see Figure 1.

The first significant result is that the variable consumption of fresh food products from 2016 to 2021 has been correlated with the consumer expenditure on food.

The correlation has been obtained result +1,

and it means a perfect correlation.

The second significant result is that the variable consumption of fresh food products from 2016 to 2021 has been correlated with the disposable incomes.

The correlation has been obtained the value +0.943, and it means a strong correlation.

			Correlations					
			Bulgaria_FRE S_FOOD_KILO GRAM_PER_C APITA_2016_2 021	BULGARIA_BI RTH_RATE_P ER_000_POP ULATION_201 6_2021	BULGARIA_CO NSUMER_EXP ENDITURE_O N_FOOD_BGN _2016_2021	Bulgaria_Con sumer_Confide nce_Index_201 6_2021	BULGARIA_Nu mber_of_Job Vacancies_per _000_2016_20 21	Bulgaria_DISP ONIBLE_INCO MES_BGN_20 16_2021
Spearman's rho	Bulgaria_FRE_S_FOOD_KILOGRAM_PER_CAPITA_2016_2021	Correlation Coefficient	1,000	-.655	1,000**	-.500	-.638	.943**
		Sig. (2-tailed)	.	.158	.	.312	.173	.005
		N	6	6	6	6	6	6
	BULGARIA_BIRTH_RATE_PER_000_POPULATION_2016_2021	Correlation Coefficient	-.655	1,000	-.655	.000	.417	-.655
		Sig. (2-tailed)	.158	.	.158	1,000	.410	.158
		N	6	6	6	6	6	6
	BULGARIA_CONSUMER_EXPENDITURE_ON_FOOD_BGN_2016_2021	Correlation Coefficient	1,000**	-.655	1,000	-.500	-.638	.943**
		Sig. (2-tailed)	.	.158	.	.312	.173	.005
		N	6	6	6	6	6	6
	Bulgaria_Consumer_Confidence_Index_2016_2021	Correlation Coefficient	-.500	.000	-.500	1,000	.719	-.441
		Sig. (2-tailed)	.312	1,000	.312	.	.107	.381
		N	6	6	6	6	6	6
	BULGARIA_Number_of_Job_Vacancies_per_000_2016_2021	Correlation Coefficient	-.638	.417	-.638	.719	1,000	-.455
		Sig. (2-tailed)	.173	.410	.173	.107	.	.364
		N	6	6	6	6	6	6
	Bulgaria_DISPONIBLE_INCOMES_BGN_2016_2021	Correlation Coefficient	.943**	-.655	.943**	-.441	-.455	1,000
		Sig. (2-tailed)	.005	.158	.005	.381	.364	.
		N	6	6	6	6	6	6

** Correlation is significant at the 0.01 level (2-tailed).

Figure 1: The results of Spearman correlation for Bulagary

Source: the author's own research and processing

For Hungary, we have the following variables, see Table III:

Table III – The dependent variable and the independent variables from Hungary

Year	Hungary fresh food kilogram per capita 2016-2021	Hungary birth rate per 1000 population 2016-2021	Hungary consumer expenditure on food HUF 2016-2021	Hungary consumer confidence index 2016-2021	Hungary Disposable incomes HUF 2016-2021	Hungary number of job vacancies per 1000 population 2016-2021
2016	222	10	281,845	-9	2,005,051	55
2017	228 - ↑	9 - →	310,885 - ↑	-5 - ↑	2,200,764 - ↑	68 - ↑
2018	231 - ↑	9 - →	331,695 - ↑	-2 - ↑	2,463,251 - ↑	84 - ↑
2019	235 - ↑	9 - →	360,832 - ↑	-4 - ↓	2,707,043 - ↑	79 - ↓
2020	235 - →	10 - ↑	398,169 - ↑	-20 - ↓	2,727,523 - ↑	61 - ↓
2021	239 - ↑	9 - ↓	419,069 - ↑	-17 - ↑	2,974,726 - ↑	75 - ↑

Source: processing of Euromonitor International Ltd., n.d.

After performing the Spearman correlation, two significant results were found, see Figure 2:

The first significant result is that the variable consumption of fresh food products from 2016 to 2021 has been correlated with the consumer expenditure.

The correlation has been obtained the result +0.986, and it means a strong

correlation.

The second significant result is that the variable consumption of fresh food products from 2016 to 2021 has been correlated with the disposable incomes.

The correlation has been obtained the value of +0.986, and it means a strong correlation.

			Correlations					
			Hungary_FRE S_FOOD_KILO GRAM_PER_C APITA_2016_2 021	HUNGARY_BI RTH_RATE_P ER_000_POP ULATION_201 6_2021	HUNGARY_CO NSUMER_EXP ENDITURE_O N_FOOD_HUF _2016_2021	Hungary_Con sumer_Confide nce_Index_201 6_2021	Hungary_DISP ONIBLE_INCO MES_HUF_20 16_2021	HUNGARY_Nu mber_of_Job_ Vacancies_per _000_2016_20 21
Spearman's rho	Hungary_FRE_S_FOOD_KILOGRAM_PER_CAPITA_2016_2021	Correlation Coefficient	1,000	-,315	,986**	-,319	,986**	,406
		Sig. (2-tailed)	.	,543	<,001	,538	<,001	,425
		N	6	6	6	6	6	6
	HUNGARY_BIRTH_RATE_PER_000_POPULATION_2016_2021	Correlation Coefficient	-,315	1,000	-,207	-,621	-,207	-,828*
		Sig. (2-tailed)	,543	.	,694	,188	,694	,042
		N	6	6	6	6	6	6
	HUNGARY_CONSUMER_EXPENDITURE_ON_FOOD_HUF_2016_2021	Correlation Coefficient	,986**	-,207	1,000	-,429	1,000**	,314
		Sig. (2-tailed)	<,001	,694	.	,397	.	,544
		N	6	6	6	6	6	6
	Hungary_Consumer_Confidence_Index_2016_2021	Correlation Coefficient	-,319	-,621	-,429	1,000	-,429	,714
		Sig. (2-tailed)	,538	,188	,397	.	,397	,111
		N	6	6	6	6	6	6
	Hungary_DISPONIBLE_INCOMES_HUF_2016_2021	Correlation Coefficient	,986**	-,207	1,000**	-,429	1,000	,314
		Sig. (2-tailed)	<,001	,694	.	,397	.	,544
		N	6	6	6	6	6	6
	HUNGARY_Number_of_Job_Vacancies_per_000_2016_2021	Correlation Coefficient	,406	-,828*	,314	,714	,314	1,000
		Sig. (2-tailed)	,425	,042	,544	,111	,544	.
		N	6	6	6	6	6	6

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Source: the author's own research and processing

Figure 2: The results of Spearman correlation for Hungary

For Romania, we have the following variables, see Table IV:

Table IV – The dependent variable and the independent variables from Romania:

Year	Romania fresh food kilogram per capita 2016-2021	Romania birth rate per 1000 population 2016-2021	Romania consumer expenditure on food RON 2016 2021	Romania consumer confidence index 2016-2021	Romania Disposable incomes RON 2016 2021	Romania number of job vacancies per 1000 populations 2016-2021
2016	362	10	6,110	-9	24,029	60
2017	370 - ↑	10 - →	6,663 - ↑	-6 - ↑	27,593 - ↑	60 - →
2018	375 - ↑	10 - →	7,465 - ↑	-14 - ↓	30,835 - ↑	61 - ↑
2019	383 - ↑	10 - →	7,965 - ↑	-10 - ↑	33,779 - ↑	54 - ↓
2020	382 - ↓	9 - ↓	8,468 - ↑	-23 - ↓	32,998 - ↓	38 - ↓
2021	388 - ↑	9 - →	9,073 - ↑	-17 - ↑	32,247 - ↓	42 - ↑

Source: processing of Euromonitor International Ltd., n.d.

After performing the Spearman correlation, two significant results were found, see Figure 3.

The first significant result is that the variable consumption of fresh food products from 2016 to 2021 has been correlated with the consumer expenditure.

The correlation has been obtained the result +0.943, and it means a strong correlation.

The second significant result is that the variable consumption of fresh food products from 2016 to 2021 has been correlated with the disposable incomes.

The correlation has been obtained the value of +1, and it means a perfect correlation.

Correlations

		Romania_FRE S_FOOD_KILO GRAM_PER_C APITA_2016_2 021	ROMANIA_BIR TH_RATE_PE R_000_POPU LATION_2016_ 2021	ROMANIA_CO NSUMER_EXP ENDITURE_O N_FOOD_RON _2016_2021	Romania_Con sumer_Confid ence_Index_20 16_2021	Romania_DIS PONIBLE_INC OMES_2016_2 021	ROMANIA_Nu mber_of_Job_ Vacancies_per _000_2016_20 21
Spearman's rho	Romania_FRE_S_FOOD_KILOGRAM_PER_CAPITA_2016_2021	Correlation Coefficient	1,000	-.621	.943**	-.657	1,000**
		Sig. (2-tailed)	.	.188	.005	.156	.173
		N	6	6	6	6	6
ROMANIA_BIRTH_RATE_PER_000_POPULATION_2016_2021		Correlation Coefficient	-.621	1,000	-.828 [†]	.828 [†]	-.621
		Sig. (2-tailed)	.188	.	.042	.042	.188
		N	6	6	6	6	6
ROMANIA_CONSUMER_EXPENDITURE_ON_FOOD_ROM_2016_2021		Correlation Coefficient	.943**	-.828 [†]	1,000	-.829 [†]	.943**
		Sig. (2-tailed)	.005	.042	.	.042	.005
		N	6	6	6	6	6
Romania_Consumer_Confidence_Index_2016_2021		Correlation Coefficient	-.657	.828 [†]	-.829 [†]	1,000	-.657
		Sig. (2-tailed)	.156	.042	.042	.	.156
		N	6	6	6	6	6
Romania_DISPONIBLE_INCOMES_2016_2021		Correlation Coefficient	1,000**	-.621	.943**	-.657	1,000
		Sig. (2-tailed)	.	.188	.005	.156	.173
		N	6	6	6	6	6
ROMANIA_Number_of_Job_Vacancies_per_000_2016_2021		Correlation Coefficient	-.638	.840 [†]	-.754	.638	1,000
		Sig. (2-tailed)	.173	.036	.084	.173	.173
		N	6	6	6	6	6

** . Correlation is significant at the 0.01 level (2-tailed).
[†] . Correlation is significant at the 0.05 level (2-tailed).

Figure 3: The results of Spearman correlation for Romania

Source: the author's own research and processing

Bulgary, Romania and Hungary had significant results for the same variables, see Table V. Significant

correlations between variables being high or perfect correlations.

Table V – Significant results of correlation

Variable	Variable	Significant result
Bulgary - fresh food kilogram per – person 2016-2021	Bulgary - consumer expenditure	1.
Bulgary - fresh food kilogram per person 2016-2021	Bulgary - disposable incomes	+0,943
Hungary - fresh food kilogram per person 2016-2021	Hungary - consumer expenditure	+0,986,
Hungary - fresh food kilogram per person 2016-2021	Hungary - disposable incomes	+0,986
Romania - fresh food kilogram per person 2016-2021	Romania - consumer expenditure	+0,943
Romania - fresh food kilogram per person 2016-2021	Romania - disposable incomes	1

Source: the author's own research and processing

What made these correlations significant?

If we look at the consumption of fresh food products kilogram per person 2016-2021 in each country, Bulgaria, Hungary, and

Romania, (see, Table VI), we can observe that it has increased every year in almost all countries. Of course there were two exceptions*, but these exceptions did not impact the results that much.

Table VI – Consumption of fresh food products kilogram per person 2016-2021 in Bulgaria, Hungary, and Romania

Year	Bulgary fresh food kilogram per capita	Hungary fresh food Kilogram per capita	Romania fresh food Kilogram per capita
	2016-2021	2016-2021	2016-2021
2016	226	222	362
2017	231 - ↑	228 - ↑	370 - ↑
2018	237 - ↑	231 - ↑	375 - ↑
2019	242 - ↑	235 - ↑	383 - ↑
2020	247 - ↑	*235 - →	*382 - ↓
2021	251 - ↑	239 - ↑	388 - ↑

Source: processing of Euromonitor International Ltd, n.d.

I can conclude that the COVID-19 pandemic has affected the consumption of fresh food for a while, but temporarily, without long-term repercussions.

As for the variables significantly correlated with the fresh food consumption variable 2016-2021, they were as follows, see Table VII:

Table VII – Significant results of correlation

Year	Bulgary Consumer Expenditure on food BGN 2016-2021	Bulgary disposable incomes BGN 2016-2021	Hungary consumer expenditure on food HUF 2016-2021	Hungary Disposable incomes HUF 2016-2021	Romania consumer expenditure on food RON 2016 2021	Romania Disposable Incomes RON 2016 2021
2016	1,532	7,786	281,845	2,005,051	6,110	24,029
2017	1,621 - ↑	8,423 - ↑	310,885 - ↑	2,200,764 - ↑	6,663 - ↑	27,593 - ↑
2018	1,727 - ↑	9,309 - ↑	331,695 - ↑	2,463,251 - ↑	7,465 - ↑	30,835 - ↑
2019	1,798 - ↑	9,793 - ↑	360,832 - ↑	2,707,043 - ↑	7,965 - ↑	33,779 - ↑
2020	1,911 - ↑	9,790* - ↓	398,169 - ↑	2,727,523 - ↑	8,468 - ↑	32,998 - *↓
2021	2,068 - ↑	10,893 - ↑	419,069 - ↑	2,974,726 - ↑	9,073 - ↑	32,247 - *↓

Source: processing of Euromonitor International Ltd, n.d.

It can be seen that the countries that studied the consumption of fresh food products between 2016-2021 were influenced by the same variables.

What do these results show us?

The variable, the consumption of fresh food

products, is directly related to food expenditure and disposable income. Even though the COVID-19 pandemic seemed to affect the consumption of fresh food products to too high demand, but also due to decreases in consumer incomes, the effects of changing consumer behavior were positive in terms of increased consumption

of fresh food products.

Conclusions

This article highlights the influence of economic and demographic factors on consumer behavior toward fresh produce before and during the COVID-19 pandemic.

It also outlines the variables influencing consumer behavior, the variable consumer expenditure on fresh food products per capita between 2016-2022, and the variable disposable income between 2016-2021.

As a result of this research, significant correlations had been obtained with the independent variables related to economic aspects (consumer expenditure on fresh food products per capita between 2016-2022 and disposable income between 2016-2021). These variables are also independent and dependent monetary variables.

The other variables that belong to the category of demographic factors (birth rate per 1000 persons between 2016-2021, consumer confidence index between 2016-2021, and the number of available jobs between 2016-2021) failed to obtain significant results from the correlations performed.

In future research on this topic, I would also like to investigate whether the consumer's standard of living influences consumer behavior.

Also, the consumer's consumption behavior towards fresh agricultural products in the year 2022 needs to be studied so that it can be seen if it is different from the pre-pandemic and pandemic period.

This consumer behavior in 2022 needs to be studied in order to be able to analyze whether consumers are behaving rationally and whether they are connected to the new realities they face; whether it is influenced by rational and/or emotional factors.

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