2020

10th semester – Master Thesis

Organic food consumption in Hungary During Covid-19 pandemic

Prepared by

Dóra Gerő

Supervisor:
Oscar Garcia Agustin

Master's program in Culture, Communication and Globalization

Number of units: 138 057

Date: 31.07.2020

Table of Contents

Abstract

The importance of this project is based upon the growing demand and consumption rates of organic food production in the world, especially during the time of the Covid-19 pandemic. The purpose of this project is to investigate and identify reasons that influence specific customer buying behaviours towards organic food consumption in Hungary during the Covid-19 pandemic. This thesis revolves around general consumer behaviour and attitude towards organic food in Hungary as well as in the specific context under Covid-19 influence. The aim was to find in what extent Covid-19 changing consumer behaviour among Hungarian consumers. By implementing a survey the researcher intended to investigate the changes in the behaviour and the perceptions in relation to organic consumption under the restrictions of the consumers. The main result are that Covid-19 influences organic food purchase in a positive direction. This is especially important in a country where the organic market is in the development process.

Due to the lack of consumer researches in Hungary and the changing market environment world-wide due to the Corona pandemic, this study can help market actors and policy makers to understand the recent situation's consumer's buying behaviour and attitude.

1st Chapter -Introduction

Introduction

Nowadays, the world is facing several challenges and problems. Starting with the environmental ones, the escalation of chronic diseases and health scares, followed by the current Covid-19 pandemic, all these challenges have a huge impact on the global economy, different industries, people's lives and consumption habits and many other aspects.

For instance, due to the environmental problems and concerns over Sustainability in the last decades, there has been a progressive increase in environmental consciousness of consumers, and the concern about the environment became a global issue (UN, Sustainable Development,2015; European Comission,2008:3).

When it comes to health concerns, there have been many reports published regarding toxic constituents in food and consumers started to question modern agricultural practice such as use of pesticides and various additives as they become more interested in theirs' and their children's health. They started to prefer food with more nutritional values, less additives, and

more coming from natural production methods (Chen, 2007:1009; Wier et al.,2002:47). Furthermore, with the escalation of chronic diseases, obesity around the world, some experts suggest that greater consumption of organic products can lead to the reduction of chronic illnesses, cancers, and even help combat obesity (Mondelaers et al.,2009:1125; Mie et al.,2017).Therefore, with the growing environmental awareness in combination with concerns about health and safer food, more and more people are becoming concerned about what they eat and how it's affecting the environment (Hannah R.,2020).

For these reasons, in the last decades, there has been a shift in the buying and consumption habits of a growing number of consumers and an increasing trend for organic food consumption world-wide. However, some countries are more advanced, while some countries are lacking behind regarding organic food consumption (Thøgersen J, 2010:172; Golijan J, 2018:129; Hungher et al., 2007).

When we look into Europe, over the past decade, organic food supply has been increasing a lot and consumer demand has expanded rapidly. In 2017, in Europe, the organic food and beverage market has increased by 10% compared to the previous year and the total value was 37.3 Billion Euro (37% of the world's organic market) (FIBL,2019). However, there are differences in terms of the level of organic food consumption among European countries. For instance, the organic market is well-established in Western Europe, on the other hand, in Eastern Europe there are still some countries where the organic food market is niche, but it has been increasing in the last years (Statista,2020; AgenceBio,2019:9-13; Willer et. al 2013:134).

Covid-19 pandemic

In relation to the health concerns and the increasing demand in organic food consumption worldwide, it is crucial to mention one of the biggest challenges that humanity faces without prior preparation. Nowadays, we live in an uncertain situation that continues to evolve day by day. This uncertain situation is caused by the Covid-19 pandemic.

COVID-19, a disease caused by a novel coronavirus, became a major global human threat that has turned into a pandemic. Coronavirus is one of the major pathogens that mainly targets the human respiratory system. (Naja et al, 2020; Hamid et al.,2020). There are still some ongoing scientific discussions about the exact origin of the coronavirus, however there are

many believers that coronavirus originated in an exotic meat market from China. For this reason, there has been a massive consumer rethink around food all around the world. This shift is impacting the type of food that is consumed, where it is obtained and how and where it is prepared (Daphne E,2020).

The Covid-19 pandemic started in late December 2019, in Wuhan, Hubei province, China, where a number of patients were admitted to hospitals with an initial diagnosis of pneumonia. In the beginning of 2020, the virus has spread rapidly to other countries around the world to become one of the largest catastrophes in the last decades (WHO,2020:1). In the beginning this disease had many names such as “Chinese Virus”, “Corona” but then officially named COVID-19 by the World Health Organization (WHO) on February 11,2020. In this project the name COVID-19 will be applied. The World Health Organization (WHO) on March 11, 2020 declared the outbreak of the novel 2019 coronavirus disease (COVID-19) a global pandemic (Long N., and Khoi B,2020; WHO,2020)

Since the declaration of pandemic, the numbers are continuing to rise rapidly. The WHO situation report 113, reported that as of 12 May 2020 globally, there were 4 088 848 cases and 283 153 deaths due to COVID-19 (WHO Situation Report-113,2020). People of all ages can be infected by the new coronavirus (Covid-19). However, older people and people with pre-existing medical conditions (such as asthma, diabetes, heart disease) appear to be more vulnerable to becoming severely ill with the virus (WHO,2020).

Furthermore, as a consequence of the global public health emergency, to prevent and control the spread of the virus, national lockdowns have been announced in many countries around the globe. The lockdowns led all public and private sector institutions, with the exception of health care facilities and a limited number of essential services, to close down. Individuals were asked to stay and work from home and avoid contact with other people (self-isolation). Additionally, many international borders were closed, which limited the supply of goods, including food (FAO 2020; Naja F,2020). Such measures of self-isolation and social distancing are known to be crucial in limiting the spread of the virus, flattening the curve of incidence rate, and ultimately disease containment (Naja F.,2020; Haug et al.,2007:1).

Together with these restrictions on daily life and the health crisis, humanity were exposed to face with numerous medical, social and economic challenges. Among these challenges are economic recession, unemployment, changes in social habits and so on (Nayga M.,R.,2020). However, it also has some positive consequences, as people are staying home and having more time for their families and to themselves, using less cars, and most importantly more people became concerned towards their own health in order to take preventions towards the virus (Galanakis, C.M.2020; Askew K, 2020).

COVID-19 is raising consumer awareness of the relationship between nutrition and health. According to previous studies, the common denominator that drives most of the nutrition and dietary recommendations to combat viral infections, including COVID-19, lies within the link between diet and immunity (Naja F.2020; Askew K.,2020). Individuals who eat a well-balanced diet tend to be healthier with stronger immune systems and lower risk of chronic illnesses and infectious diseases including COVID-19(Naja F.2020; Askew K.,2020). Therefore, maintaining a healthy diet is recommended to mitigate COVID-19 infection via the immune boosting mechanism.

For these reasons, as a result of the pandemic there is an increase in demand for organic, vegan, vegetarian and other healthy foods, as people search for healthy, clean food to feed their families, boost their personal immunity and fight against the virus (OTA,2020). At the same time, as a consequence of the restrictions, there is an increased shift from offline to online grocery shopping and home-deliveries (Askew K.,2020).

These „trends" caused by the pandemic are giving the already growing organic industry more popularity, as companies within the industry are experiencing increased sales around the globe (Askew K.,2020; Hortidaily, 2020). For instance, Whole Foods Market, the world's largest natural food retailer, has started limiting the number of its online grocery customers because of unprecedented demand in March. In the UK, Abel & Cole, the biggest organic retailer, has reported a 25% increase in sales orders, whilst Nourish Organic, an Indian online retailer, experienced a 30% sales rise in March 2020 (Askew K.,2020; Daphne E,2020).

When it comes to the physical stores, organic and health food shops have remained open in many countries; they are attracting new consumers, whilst existing customers are spending more. For instance, in France, some organic food shops were reporting sales increases of over 40 percent as a result of the outbreak (Hortidaily, 2020).

According to Ryan Koory, director of economics for Mercaris, which provides analysis and information on the US organic market, despite the hefty sales increase, there's too much uncertainty to predict exactly how consumer demand for organic food ultimately will be affected (Knutson J, 2015).

Problem Formulation

As it has been mentioned, the world is facing several problems right now. We live in uncertain times, where there is a changing market environment world-wide due to the Covid-19 pandemic, which can influence either positively or negatively the consumption habits of the consumers.

It can be seen that the demand of organic food in the global market has increased significantly especially during the time of the Covid-19 pandemic. However, besides the pandemic, while in the last decades in most parts of Europe organic food has become a matured market, there are still some emerging markets in Eastern-Europe (Willer et. al 2013:134). In all Central Eastern European countries, consumer survey results show that consumers are not very well informed in relation to organic food products and their benefits, and they have less income to spend on premium products such as organic(Torjusen et al.,2004:45) For this reason, the majority of consumers purchase the conventional food products, as they are not prepared to pay extra for organic products (Willer et. al 2013:134).

For instance, Hungary is a Central Eastern European country, where Hungarians have become acquainted with the organic agriculture in the last 25 years, however the organic food is still a niche market for several reasons, which will be explained later on (Szente V., 2015:85). Furthermore, based on the author's own experience, it can be seen that there is a lack of organic food products available in supermarkets compered to more matured markets for instance with Denmark which is the world's leading country for organic products (The Local, 2019).

To narrow down the research in question, currently there is limited and no up to date research that investigates organic food purchasing behaviour among Hungarian consumers (Frühwald F,2012:12-13; Szente V.,2018:2). Little is known about motives, influencing factors, purchasing behaviours, and potential barriers of organic food consumption in general, and also during the Covid-19 pandemic.

For all these above mentioned reasons(lack of consumer researches and the changing market environment world-wide due to the Corona pandemic), the aim of this paper is to find the most recent factors and barriers lying behind Hungarian consumers' buying behaviour with regards to organic food consumption generally, as well as during the Covid-19 pandemic.
Furthermore, in light of the increased purchase of organic foods as highlighted in the introduction, the researcher aims to investigate if the COVID-19 pandemic influences negatively or positively the attitude of Hungarian consumers towards organic food consumption.

Research Question

With the following Research question(s)

How does the Covid-19 pandemic changing the organic food purchasing behaviour and attitudes of consumers towards organic food products in Hungary?

With the following subquesiton(s)

- What are the main influencing factors among Hungarian consumers for organic food consumption?

- What are the purchasing determinants and barriers in organic food consumption among Hungarian consumers in the light of the Covid-19 Pandemic?

Limitations

In this research there are many limitations can be found due to the unexpected Covid-19 pandemic situations. First of all, at the time of the project writing there were no reports available about the direct effect of Covid-19 on the Hungarian organic food market as well as nowhere else in the world. This includes also the theories in relation to consumer behaviour. The researcher could not find any relevant framework which could explain organic consumption during a pandemic.

Second of all, as there are the stay home and social distancing measurements during the time of this thesis writing, it has limited the data collection method to online survey. In relation to the online survey,it broadened the reach of the survey; however, it did limit respondents to Internet users only.

The study was quite limited in terms of secondary data collection on the Hungarian market, since most of the previous researches are out to date and mostly available only in Hungarian language. Additionally, there is a limited consumer research in Hungary.

Delimitations

In relation to the Theoretical framework of this project, the Theory of Planned Behaviour will be analysed only partly – only the attitudes towards intention and Perceived Behavioural Control considered to be relevant in relation to the nature of this research. However, the other constructs will be also looked as they have a relevance, but correlation among the variables will not be made.

When it comes to the Consumer behaviour theory, the researcher has decided to exclude the steps in the Consumer decision making process due to the fact that during a pandemic consumers make fact decisions and organic consumption is mainly related to health motives.

What is Organic?

Considerable confusion surrounding the term 'organic' still exists. That being so, the aim of this section is to introduce the definition of organic food, which will go through all parts of this research, and a few clarifications in relation to that in this project.

The term "organic" refers to the way food is produced and grown based on certain criteria in agriculture. According to the Department for Agriculture and Rural Affairs (DEFRA),*"Organic food is the product of a farming system which avoids the use of man-made fertilisers, pesticides; growth regulators and livestock feed additives. Irradiation and the use of genetically modified organisms (GMOs) or products produced from or by GMOs are generally*

prohibited by organic legislation" (Lewin J.,2020). Furthermore, in this process animal welfare is important (Honkanen et al., 2006, p. 420). Therefore, the name "organic" is focused on the production of a product more than on the product itself.

Additionally, products which are listed as organic are produced in line with standard rights in all areas of production and are awarded a certificate label by an industrial body. The importance of organic food labelling is to ensure the quality and safety since it is not possible for a person to see if the product is organic or not by the naked eye (Bell,2013 and Hansen et al.,2002:9).

In order to get an organic certificate or food label, farmers have to make sure that at least 95% of the ingredients in their production is coming from organically produced plants and/or animals (FAO,2007:8 and European Commission,2020). For this reason, products marketed as organic has to meet all the standards and regulations by International Federation of Organic Agriculture Movement (IFOAM). In Europe, it is illegal to sell any food as organic unless it has been produced in full conformity with the EU Organic Regulation (FAO,2012:30 and European Commission,2020).Therefore, the certified products from organic farms due to their special quality guarantees the protection of the health of the producer and the consumer.

Opponents on organic food

Even though that most people around the world believes that organic food is healthier since it contains natural nutritious values and that it is favourable for the environment, there are still opponents, who claim that in fact it is not safer than conventionally grown food, does not contain as much more nutritious values as people think and that it also contains slight amounts of chemicals (Smith-Spangler, Crystal et al.,2012:365).Thus it does not make sense to spend more on organic food products; they say (Watson S., 2012). However, it seems that those organic food opponents' opinions do not influence the great majority of those who consume organic food, since the organic food consumption is growing world-wide (Hughner et al., 2007:1).

Organic", "Öko", "Bió"-a few clarifications

The researcher found it crucial in the beginning of the research to make some clarifications in relations to the concept of "Organic", "Öko (ecological)",Bio". These concepts might mean the same for some, however in the Hungarian market, consumers are not much aware of the

concept “organic”. This problem could be stemming from the misunderstanding of the adequate concepts because in Hungary the official term for this kind of food is „Öko” but many consumers know them as bio food (Fogarassy et al.,2019:5). It is because of linguistic reasons, where the term Öko or Bio is most prevalent in German, organic more in Anglo-Saxon areas (Csíki S.,2019). The researcher in this project will use the term organic, however during data collection from the Hungarian market the term “Öko” will be used.

Hungarian Organic food market

As it has been mentioned before, organic food consumption is on the rise among consumers all over the world. After many years of stagnation, in the last years, significant market development could be observed in Hungary too, organic foods are available in more places and in increasing variety (Szente V., 2018:1). The development of the organic sector can be measured by the number of farms, size of the organic agricultural land and the market share of organic products in a given country (Biokontroll, 2020).

Historical aspects of the Hungarian organic sector

In order to understand the development, it is essential to look at some historical aspects in relation to organic farming in Hungary.

Organic farming in Hungary started in the 1980s but there were just 15 organic farms by 1988. In 1983 the Biokultúra-Klub was founded in Budapest by market oriented organic farmers. This was the first organic agriculture organisation in Central Eastern Europe. In 1996, the organisation has changed name to Biokontroll Hungaria Kft., and became the first domestic organic inspection and certification agency in Hungary. In 1997, the organisation became the member of IFOAM (BioKontroll Hungaria, 2020). The number of organic farms rose to 762 by 2000 and reached its peak in 2009 when there were 2292 certified organic units (Drexler & Dezseny 2013:239 and Balázs et.al,2015:11).

When it comes to the agricultural land (Ha), as it can be seen from the table below (Figure 1), the organic agricultural land grew quickly between 1996 and 2004, However the development has been stagnating since 2004. From 2009, both the number of operators and the total cultivated area have decreased, dropping back to the 2004 level (Drexler & Dezseny 2013, 239).

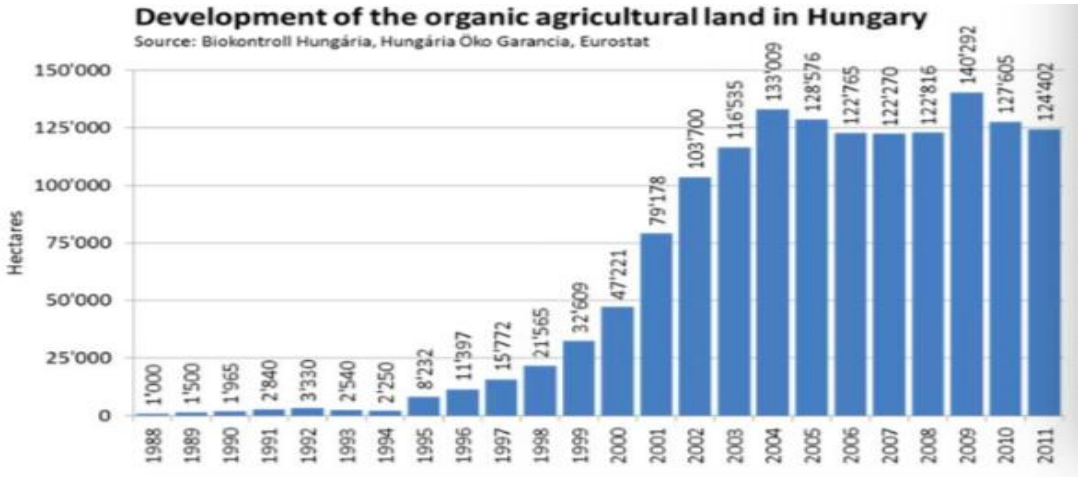


Figure 1: Development of organic agricultural land in Hungary 1988-2011 adapted from Drexler & Dezseny 2013

Therefore, it can be said that between 2004 and 2011, with the exception of a few growth bursts, the growth trend somewhat halted. Hungary was one of the few European countries where the organic sector has not been expanding. This was partly due to the effects of The 2008 Financial Crisis, and the lack of effective policy incentives, such as suitable subsidies or administrative support (Drexler & Dezseny,2013:2). For this reason, in 2009, the stagnation of organic farming came into the focus of policy makers, with the 2009 Rural Development Program and the National Rural Strategy 2012-2020-aiming to provide special support and benefits for the organic agriculture (Agroberichten Buitenland,2020).

Current situation

When it comes to the latest statistics, after almost a decade and a half of stagnation in Hungary, development gained momentum in 2016. As it can be seen from the table below (Table 1), 121 071 hectares of field space were devoted to producing organic foods in 2010. Between 2013 and 2015 it has been decreasing, however since 2016 there was a breakthrough in organic farming and by 2019 this field space has more than doubled to

267 156 hectares and the number of organic producers has almost tippled compared to 2010 (BioKontroll Hungária, 2019:2).

Organic Production Profile of Hungary (2010-2019)										
	2010	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
Organically farmed area (ha)	121 071	113 070	118 990	119 275	112 285	107 605	166 468	177 095	184 985	267 156
Number of Organic farms	1 493	1 345	1 282	1 339	1 327	1 411	2 982	3 160	3 435	4 146

Table 1 (Changes in Organic lands -Adapted from BioKontroll Hungaria,2019:2)

This breakthrough is due to the supports from the Government as it was part of the mentioned Hungarian Rural Development Strategy grants under the 2014-2020 EU budget cycle (KSH, 2018:72).Furthermore, the Hungarian Constitution bans the use of GMOs which is another advantage for the development of organic farming. Additionally, there is a big role of organic organizations in the development. These organizations provide the latest information, trends, prices, education and regulations in relation to the organic market, with this, helping both the organic suppliers and the consumers. The main organizations are Biokontroll Hungária Nonprofit Kft, Biokultúra and the Hungarian Organic Research Institute (ÖMKI) (HoferM.,2009.58).However, besides the developments in the last few years, the country is still behind compared to other European countries in terms of production and sale (Dr.Kádár A.,2017).

When it comes to organic food market shares, unfortunately, there is no reliable and up-to-date data in Hungary regarding organic food traffic; participation of sales channels are only estimated. Based on these estimates, the traffic of organic food in Hungary was about 30-35 million Euros in 2015. This amounts to less than 1% of contribution to the Hungarian total food market turnover, which is very low compared to other European countries (Szente V, 2015:32).

Issues in the Hungarian organic market

When it comes to issues on the Hungarian organic market, the researcher found it important to mention the ones which are relevant in relation to this research. Besides the issues that

organic products have just a small market share, about 85 percent of the organic production is exported mostly to the European Union. At the same time, the majority of the organic product range (around 90%) in Hungarian food stores consists of imports, therefore most of the organic food in Hungary comes from foreign sources (Drexler D., 2013, 240).
The import products have a good quality however they are quite expensive. In some cases, these imported products are 30-40% more expensive than it is in the importer country. For this reason, the good quality eco-market offerings are unaffordable for a wider audience. Further issue is the mentioned fact that data on estimated number of organic consumers and domestic turnover of organic products simply do not exist (Frühwald F, 2012:12-13 and Szente V., 2018:2).

To sum up, as it can be seen organic farming is a nearly forty-year old tradition in Hungary and it has been growing in size and impact since. The growing demand can be seen with the increase in the number of organic farming and producers in Hungary (Szente V., 2018:1 and Lehota J,2012:26). Although there was a long period of stagnation, from 2016 the organic market started to grow again. Today, there are more than 4100 producers conducting organic agricultural practice over 267.157 hectares of land. Therefore, the outlook is likely greater now than any point within the last decade on the Hungarian market. This could bring opportunities as well for the consumers, as there will be more products available on the market.

2nd Chapter Philosophical Considerations and Methodology

Philosophy of science

Philosophy of science according to Saunders et al. (2009) is the question of which research paradigms the study is applicable to and one of the most essential and important questions when conducting a research, as it impacts the entire research and not least the way the data is collected and applied throughout the research (Saunders et al., 2009: 85).
To be able to conduct a research, the researcher has to choose a common view of the reality, which will help to produce his/ her own perspectives and proposals. This is essential as what the researcher believes about the nature of reality will dictate the kind of relationship the

researcher should have with the research as well as how it will affect the choice of research design and methods (Bryman, 2012:5).

Ontological considerations

Ontology is a philosophical view of what we can know and what sort of things exists in the social world and assumptions about the form and nature of that social reality (Bryman, 2016:28).

There are different views about social reality: Realist/Positivist ontology believes that there only exist one truth and it objectively exists outside of the observer. In contrast to that, Constructionist ontology believes that there are multiple versions of reality and it is a result of social construction that consists of perceptions and actors (Bryman, 2016:28 and Della Porta., & Keating, 2008:22- 24). This means, that there are as many constructs of the social world as there are people (actors), meaning there are multiple ways in which they understand and speak of the world, and how it functions (Bryman, 2016:28-30).

Since the Covid-19 is an unknown phenomenon, it requires to conduct a research based on both objective as well as subjective measures. However, the aim of this project is to get an understanding on Hungarian organic consumer's perceptions and beliefs in relation to organic food consumption behaviour during Covid-19 pandemic, it involves many actors where everyone has their own views about the reality and how it has been affected or not affected by the Covid-19 pandemic. Therefore, the reality is socially constructed. For this reason, the ontological position of this project is manifested within the philosophical paradigm of Social Constructivism as the researcher believes that the reality is socially constructed and there can be many truths in relation to organic food consumption in a situation (Covid-19) which is unknown and continues to evolve day by day.

Epistemological considerations

Epistemology is a philosophical view, which concerns issues of how the social world should be studied and what is regarded as an appropriate knowledge in discipline. Depending on whether the researcher is following the Interpretivist or Positivist approach, it will determine what the appropriate knowledge in the discipline is (Bryman, 2016:27). Positivism aims to

explain the world and human behaviour through observation and objective measures, Interpretivism on the other hand emphasizes understanding and interpretations of social realities through subjective measures. It aims to understand and interpret the meaning behind human behaviour (Bryman, 2016: 28).

Since the purpose of this project is to investigate, create new knowledge and get a deeper understanding of the consumption behaviour of organic food during a pandemic, the goal is to know the specific context of human behaviours. This requires to study existing researches on general consumption behaviour among Hungarian organic consumers as well as to get inside their head to understand their motives, beliefs and opinion in relation to organic food consumption during Covid-19 pandemic. For this reason, for knowledge discovery the researcher will apply the Interpretivist approach, where the focus is on understanding human nature through subjectivity (Scwandt,2003:296-299). Furthermore, with the adoption of the Interpretivist approach, the researcher is providing an interpretation of others' interpretations. This means that the findings of this research should not be taken as the only explanation of the phenomena but rather as one of the scientific ways of understanding it (Della Porta & Keating 2008 :25). However, in this research, the researcher will use objective measures to understand and interpret the actors, therefore, in this research two different epistemological positions will be applied, positivism in regards to survey and Interpretivism in regards to the secondary sources interpretations and the used opened-questions in the survey.

Methodology

Whereas epistemology and ontology relates to how the researcher sees and understands the world, methodology relates to how the researcher actually studies this world. The word methodology has its roots in a Greek word "hodos", which means a way. Methodology in contemporary understanding concentrates on finding the best way to gain knowledge about the world (Jarvie & Zamora-Bonilla, 2011). Therefore, in this section the researcher will present the Research design, Research strategy, research approach, Data sources, Data collection method, Sample design, Sampling, Data Analysis and ethical considerations.

Research Design

A research design refers to the overall strategy and the criteria that are employed when conducting social research. It is, therefore, a framework for the generation of evidence that is suited both to a certain set of criteria and to the research question in which the researcher is interested (Bryman, 2012:45).

Krishnaswamy and Satyaprasad (2010) declared that there are three types of research designs: exploratory, experimental and descriptive research. Exploratory research studies unfamiliar problems where the researchers have lack of knowledge. It is because generally there is no prior research done or the existing ones do not answer the problem precisely enough. Therefore, the main goal of exploratory research is to gain ideas within a certain range of research (Krishnaswamy & Satyaprasad, 2010:31 and Bhat A., 2020).

Experimental research is intended to measure the effects of certain variables by keeping the other variables controlled or steady and discovers how variables are related to each other. On the other hand, Descriptive research is a fact-finding process with sufficient interpretation by the researchers. This research is described as the simplest one of all kind research methods (Krishnaswamy & Satyaprasad, 2010).

Based on the ontological perspective of this research, the researcher wishes to understand a phenomenon. In this case it is to understand organic food consumption behaviour during and after the Covid-19 pandemic. Since it is a new phenomenon, there are no existing researches which covers this topic. For this reason, the researcher believes, that the exploratory research design is the most suitable way to apply to this study, since this problem needs further exploration in order to gain valuable knowledge and information.

Research Approach

The inductive and deductive research approaches dictate what kind of relationship will have the researcher with the theory. While inductive approach aims at developing theory, deductive approach aims at testing an existing theory (Bryman, 2012:20).

The researcher's relationship to the theory in this project is based on both Inductive and Deductive approaches. It is because there is little to no existing literature on the topic of organic food consumption during the Covid-19 pandemic, therefore the researcher applies

inductive approach because there is no theory to test. On the other hand, when it comes to organic food consumption in general, the researcher will use some aspects and constructs from previous theories (Theory of Planned Behaviour and Consumer behaviour), therefore the researcher is combining both approaches in this study (Bryman, 2012:20 and Hyde, 2000:82).

Research Method

There are two main methods in which researchers can conduct a research. These two methods are the qualitative and quantitative research methods (Bryman, 2012:35).
In simple terms, qualitative research can be construed as a research strategy that usually emphasizes words in the collection and analysis of data. It predominantly emphasizes an inductive approach to the relationship between theory and research (Bryman, 2012:36). Qualitative research methods are designed in a manner that they help reveal the behaviour and perception of a target audience with reference to a particular topic(Bryman, 2012). Consequently, it is recommended for qualitative research for foregoing a preliminary literature review in order to allow concepts to originate and emerge from the data. In this research in-depth interviews, focus groups, ethnographic research, content analysis, case study research that are usually used **(**Bryman, 2012:379).

On the other hand, quantitative research can be construed as a research strategy that emphasizes quantification in the collection and analysis of data. It enables the researcher to apply existing theory to help explain a phenomenon, therefore it uses deductive approach (Bryman, 2012:35,161). Quantitative information can be collected by surveys or by looking it up in the Internet or using statistics (Della Porta & Keating 2008:244 and Bryman, 2012:161).

Since the research topic is an unfamiliar problem, first, the researcher needs to study previous studies in relation to the effect of Covid-19 on consumption behaviour. Thereafter, the researcher needs to look at previous studies on organic food consumption in Hungary, in order to get an understanding on how was the consumption behaviour before the pandemic, so the researcher can get an overview on how it has changed (or not changed) during and after the pandemic. This will require interpreting and analysing existing qualitative and

quantitative studies to understand the changes and perception of the consumers, thus, this study begins with an investigation based on secondary data sources.

To understand consumption behaviour during and after the pandemic (post-pandemic), the researcher believes that a qualitative survey design is the most suitable to compare variables, identify changes in consumption, and to gain as much information as possible to create new knowledge.

For these reasons, the researcher has decided to implement a mixed method research to this study, combining both qualitative and quantitative research designs. Advantages of this method is to gain a richer range of insights than is possible from the use of just one method (Creswell, 2014:48 and Bryman, 2012:627)

The mixed-method research design is in relation with the Social Constructionist view as the aim is to understand the views and perception of the consumers (based interpretation of others' interpretations-secondary sources). The implementation of the survey will back up the perception of the actors. Also, it can be implemented in a bigger sample of the population therefore giving a more reliable data (Bryman, 2012:381).

Data Sources in relation to the project

In relation to this project, the first step during the secondary research will be a preliminary literature review about organic food and organic consumers in general. This will be followed by a literature research on the effect of Covid-19 on consumption and food consumption. Thereafter a specific literature research on Hungary will be carried out to get an understanding of the market and consumer's preferences and barriers in relation to organic food consumption. These secondary sources will be gained from previous academic studies on organic food consumption behaviour, consumption reports and market trends, conference summaries and statistical databases. The reliability of these sources is crucial therefore the researcher will pay increased attention on their authors and origins. The second step will be the primary data collection which will be in the form of quantitative survey design.

Data Collection

The quantitative survey method has been chosen as the researcher aims to understand how a pandemic like the novel coronavirus affects organic food consumption behaviour in Hungary and if there are any changes compared to previous behaviour and other variables. This is possible by comparing the variables (Bryman 2012:183; Bryman and Bell, 2011:389). Therefore, this type of method will be the most suitable to collect data and compare variables due to the given unusual circumstances (quarantine, social distancing, topic unfamiliarity). Additionally, with this method, the researcher can access a representative sample of certain population, being able to survey a large group of people (Bryman 2012:184).

As every method, the online-survey method has certain advantages and disadvantages. Generally, the advantages of the online survey are that target respondents could answer at their convenience, they offer faster response times, lower cost, wider geographical reach, and more efficient data management (Bryman,2012:4; Lackana L.,2004:123). Additionally, responses to online surveys tend to be less biased than face-to-face surveys because of the anonymous nature of the Internet environment, thus generating higher levels of data reliability (Lackana L.,2004:123-124).

Disadvantages of the online survey is that the respondents' behaviour can not be observed accurately. Also, since the interviewer is not presented it can not give explanation and if there is any unclear question it can cause misunderstandings. Furthermore, the researcher is aware that only respondents who use or work with computer will be able to answer the questionnaires therefore it can limit possibilities from relevant target audience **(**Lackana L.,2004:123-124; Bryman, 2012:232)**.** The researcher will use strategies trying to overcome the mentioned weaknesses. Strategies will include implementing a pilot survey to make sure that the questions are clear and understandable, providing a cover letter to explain the purpose of the survey. Additionally, providing contact information for people who do not have internet but want to participate, giving the possibility to arrange other methods for completing the survey.

Survey Design

The Survey design includes many steps, among them the main ones are operationalization, questionnaire design, pretesting process and implementation (Bryman,2012:185). Operationalization is necessary in a research project because it processes all the concepts from previous studies and theories into quantified variables (Krishnaswami and Satyaprasad, 2010). According to Bryman (2012), there are four phases of operationalization: providing theoretical understandings, listing potential concepts and variables, selecting significant variables and collecting data in the end (Bryman,2012:161-163). For this reason, careful considerations of relevant theories and studies in relation to organic food consumption was essential. Therefore, the selected concepts in relation to the questionnaire design are based on the literature review section and theoretical framework of this project. The table with all the selected concepts and variables can be found in Appendix 1.

Questionnaire design

After selecting the relevant concepts and variables, the next step was to design a suitable questionnaire. Since questionnaire design is based on the content and the wording of the questions, all the questions should be easy to understand and connect to the target group clearly (Malhotra, 2010).

According to Bryman (2012), there are number of issues to be concerned when designing questionnaire. For example, the questionnaire should be as short as possible; it should be in logical and sequential structure so the respondents can easily follow. The questionnaire should be divided into parts that correspond to the various issues that the researcher is asking question about. In relation to the order, the easy questions should be asked first and the harder ones last (Bryman, 2012:232-233).

While designing the online survey the aim was to collect both qualitative and quantitative data. Therefore, the survey includes closed and semi-opened questions. With this structure, the respondents had the possibility to supplement it with their own answer („Other, please indicate") to ensure that the respondents' opinions and perceptions are reflected to the highest degree in the research results.

This kind of survey will give a structure, enabling the researcher to collect data based on previously identified concepts and variables, but also a freedom to the respondents to

provide answers and talk about their own perceptions that the researcher has not thought of. This provides the researcher with exploratory data that may reveal unforeseen opportunities and issues (Bryman, 2012:233; SurveyMonkey, 2020).

Based on the preliminary literature review and theories, the survey has 17 questions. The questionnaire is divided into three parts. The first part is related to general questions and demographic factors for statistical analysis, which includes, age, gender, occupation and attitude towards environment. The second part is in relation to past and present (during the pandemic) related organic food consumption behaviour and attitude measurement, factors influencing consumers' purchase decisions, and purchasing channels. The third section is related to the future (post-pandemic) consumption of organic food products and questions related to health and diet. Additionally, the survey first was implemented in English language, but after receiving feedback form the respondents, it has been translated to Hungarian, so the respondents could choose either from English or Hungarian language to fill out the survey. The full questionnaire design is available in (Appendix 2-Questionnaire Design).

Pre-testing

Pre-testing is a method to prepare the actual data collection by testing the survey on a small sample. The aim of pre-testing is to eliminate questions and/or change them to become more understandable or suitable. Pretesting is suggested to be done by individual expert with professional knowledge who can ensure the questions reflect the purpose (Bryman,2012:263). The author of this project pre-tested the survey in two ways. First, the questions of the survey have been discussed a revised by an individual expert in organic farming. Second, the survey was subsequently piloted with 30 consumers of organic foods to ensure that the questions and response formats were clear. Many mistakes have been identified and questions have been eliminated and changed to be more understandable, interesting and clear based on feedbacks received from the expert and the pilot study participants. Moreover, the researcher has identified that there is a misunderstanding around the concept of "organic", which caused some barriers in collecting the right respondents at

the beginning of the data collection. This misunderstanding has been corrected since then and the reason is explained in the introduction section of this project.

Sampling method- Purposive Sampling

In order to collect quantitative and/or qualitative data for a research, a target population, community, or study area must be identified first. This process is called sampling, where a smaller amount of the respondents are selected to represent the whole population. The population refers to all the individuals or the entities who share similar characteristics (Bryman, 2012:190).

In this study the researcher will implement Purposive Sampling. In this type of sampling, participants are selected or sought after based on pre-selected criteria that will allow the research question to be answered (Bryman, 2012:418). In this research, the population has been narrowed down to Hungarian consumers who interested in any ways (consumption, cultivation) in organic or "öko" products. Another sampling criteria was that the participants had to be consumers of organic food at least once in their life in order to be able to give a valid and credible opinion. Additionally, Hair et al. (1998), stated that a sample size of 200 to 500 persons is recommended to be sufficient for data analysis (cited in Lackana L.,2004:127). Even though, purposive sampling approach is one of the costless and time-effective methods to collect primary data to support the study, among disadvantages are the researcher bias, low reliability, as well as generating ability for the population (Bryman,2012).

Sampling Strategy- Snowball Sampling

The researcher will use strategies in order to reach the right target audience for data collection. For this reason, the snowball sampling strategy will be implemented, where the participants of the survey will be asked for recommending people or communities suitable for the research (Bryman,2012:202). This is relevant for research on organic food consumption, since it helps to discover consumers who has an interest or regularly consume organic food products. To start the snowball sampling, the researcher has used own network on social media to find the right target audience. After some respondents have been found, the researcher has asked for recommendations for possible Facebook groups and

communities for distributing the survey and conducting the research. In total 11 Facebook communities have been identified in relation to healthy diet, organic food, organic recipes and "ÖKO living". In these groups the researcher has distributed the URL survey link along with an introductory text including the research aim and purpose, so anyone could fill out the survey in their own will and choice. Additionally, from these groups, the members were recommending other groups and organic farms. The researcher has written three organic farm owners and asked them to distribute the survey to their consumers. Furthermore, the researcher has written to the Hungarian Organic Agriculture and Consumer association (ÖMKI) to ask for the survey distribution for the right target respondents. With this method, the designed survey is only sent to the people who consume or interested in consuming organic products.

Analysis of Data

In this step, the researcher is concerned to use a number of techniques of quantitative data analysis to reduce the amount of data collected and to develop ways of presenting the results of the analysis to others, and so on (Bryman:162).

For survey design, the researcher used Survey Hero-multi-language version. The designed survey with all the answers can be found in Appendix 4-Survey results. After the survey has been closed for participants, the results of the survey were collected in excel sheets by the researcher. After the data file was checked and adjusted, the coding phase followed for the open-questions (Appendix 6). Coding is "the process of assigning a numerical score or other character symbol to previously edited data" (Zikmund et al., 2010, p. 468).

After collection and coding, data was ready for statistical analyses. For analysing, the SPSS 22 statistical package for Windows was used. In this process besides the descriptive statistics, for some variables, correlation calculations have been made. All the converted information and the used data tables for the analysis can be found in Appendix-5-Data analysis.

Ethical Consideration

In addition to conceptualizing the writing process for a proposal, researchers need to anticipate the ethical issues that may arise during their research (Bryman,2012:679). Since

social research in practice is not only a way of generating knowledge about a certain subject, it is also aiming to understand what others are doing or saying and transforming that knowledge into public form. In this way, moral issues can arise from the fact that a theory of knowledge is supported by a particular view of the human agency (Schwandt T. A, 2003:135). For this reason, attention needs to be directed toward ethical issues prior to conducting the study; beginning a study; during data collection and data analysis; and in reporting, sharing, and storing the data (Croswell,2014:132).

Even though that organic food consumption does not seem as sensitive research topic, the researcher will ensure confidentiality for the respondents by providing anonyme survey. By doing this, the researcher is making sure that the respondents will not suffer any harm or consequences for stating their opinion and views regarding organic food consumption during Covid-19. In addition, the participants will be informed that they could withdraw from survey, or not answer for questions anytime they feel uncomfortable. Finally, the researcher will not use the information gained from respondent in any bad or illegal way.

Critique of Method

There are some critique points towards this project in relation to the data collection method. The researcher is aware that the optimum would have been if she had gone to visit organic food markets in person and ask both the sellers and consumers (face to face interview) in relation to the organic consumption during the Covid-19 Pandemic. With this method, the researcher would be able to cover a wider audience and also reach the ones who do not have internet or computer to fill out the survey. Additionally, with this method, the researcher would probably get deeper insights in relation to organic food consumption or other aspects that the researcher has not thought of. However due to partial curfew and the shopping time restrictions by the Hungarian government these markets were allowed to visit in different time periods*:" Residents above the age of 65 are only allowed to visit these between 9AM and 12 noon. During these hours younger residents are not allowed in the stores or in pharmacies" (DUE,2020)*. Therefore, this data collection could not happen in reality due to the governmental restrictions as well as the regulations for keeping the social distance (1,5 meter) from each other.

Another critique is that after the survey has been collected and analysed the researcher has realised that the survey could have asked the approximate household income level and to see if that has changed as a result of Covid-19, as it could also change the behaviour of the organic consumers. However, asking about income could be a very sensitive topic for some people. Furthermore, due to the method of sampling, it is important to note that the results of the research cannot be regarded representative, thus conclusions cannot be drawn for the total population, but it was not the main objective, anyway.

3rd Chapter Literature Review

This section of the project will be divided into two parts. The first section will review articles and reports about the effect of Covid-19 on food consumption behaviour during the pandemic and future outlooks. The second section will review existing literatures on consumer's behaviour in relation to organic food consumption.

3.1The effect of Covid-19 on food consumption behaviour

Since the Coronavirus is a new and extraordinary phenomenon, there are no academic literatures available which covers the Covid-19 pandemic connection to consumption at the time of this thesis writing (May,2020). However, there are some ongoing research articles and discussions on the effect of COVID-19 on consumption behaviour globally. Therefore, in this section, an alternative type of literature review will be presented based on the latest articles and discussions in relation to the topic. For better orientation the articles and reports are grouped into the following areas: (1) Previous outbreaks and their connection to organic food consumption (2) Buying behaviour in relation to organic food during the Covid-19 pandemic, (3) Buying behaviour forecasts for the future.

3.1Previous outbreaks and their connection to organic food consumption

First of all, the researcher has decided to look at literatures in relation to the effects of previous pandemics on organic food consumption. The previous outbreaks of the last 20 years, such as the Severe Acute Respiratory Syndrome (SARS-CoV, from 2002 to 2004) and the Middle East Respiratory Syndrome (MERS, from 2012 until now) were diseases of the

lower respiratory tract with similar symptoms as COVID-19 (Askew K,2020). These outbreaks were leading to significant mortality among vulnerable individuals (e.g., those who do not have a robust immune system) and older people. The reports conclude that whenever there is a health scare, consumers are aiming to protect themselves and their immune system by adopting healthier diets (Askew K,2020; Yousafzai et al.,2013; Galanakis C.M., 2020;WHO 2020). The consumption of fruits and vegetables can help boosting the immune system to fight against viruses (Manson J.,2020). Furthermore, various studies show that organic food have more nutrients than conventional foods. For this reason, consumers buy organic foods as they are considered safer and more nutritious than conventional foods (Naja F, 2020; Lea and Worsley, 2005; Askew K,2020). According to Ecovia Intelligence (formerly known as Organic Monitor), this could be the reason why the BSE crisis in 2000 escalated demand for organic meat products in Europe, similarly, in response to SARS, organic demand increased in Asia in 2004. Furthermore, the melamine scandal in China (2008) boosted demand for organic baby food as it was considered safer (Askew K,2020).

Similarly to previous pandemics, articles and reports are stating that COVID-19 is raising consumer awareness of the relationship between nutrition and health, therefore there is an increased interest in products that benefit to human's health (FAO 2020; Galanakis, C.M.2020; Askew K, 2020; Delloitte,2020; Manson J, 2020). It is because the COVID-19 virus infects people of all ages, however, evidence to date suggests that two groups of people are at a higher risk. These are older people; and those with underlying medical conditions (WHO 2020; Delloitte,2020). According to the Food and Agriculture Organization of the United Nations (FAO), even though that no foods or dietary supplements can prevent COVID-19 infection, maintaining a healthy diet is an important part of supporting a strong immune system (FAO, 2020).

3.2 Food consumption behaviour during Covid -19 pandemic

The shock caused by the pandemic affects significant elements of both food supply and demand. There are several reports and articles written by researchers, global consultant companies, UN bodies etc.,which investigates how the global or national consumer preferences are changing under the influence of COVID-19 pandemic. The results generally show that the pandemic has led to increased demand for organic and sustainable food (Ecovia

Intelligence 2020; Manson J, 2020; Byington L., 2020; Ernst & Young,2020; FAO,2020; Deloitte,2020; Yelp's Coronavirus Impact Report 2020).

When it comes to demand, there are studies in different countries which are investigating the general food consumption behaviour during Covid-19 pandemic. The first available research in relation to the topic is conducted by two researchers (Dr. Ann Veeck and Dr.Hu Xie) from the Western Michigan University. The researchers conducted a survey in China between February 15 and February 23 2020, where they examined food consumption behaviour during the pandemic. The main findings are that due to people stay more time at their homes, they increased online shopping of food. Some respondents were reporting that they ordered food online for the first time. Further findings are that previously people were buying fruits and vegetables mainly from markets, but since the epidemic, this has changed and they buy it through online businesses. Furthermore, many people reported increasing the perceived healthiness of their diet to increase immunity (Markin S., 2020).

The previously identified changes in behaviour is also supported by the Food Industry Association (FMI) and Robert Johansson, USDA Chief Economist in Food and Nutrition. In his article, Robert Johansson states his concerns for the future, in regard to how the food consumption patterns will change as a result of the major shift to online shopping (Johansson R, 2020).

These changes in consumer behaviour can be seen across the globe as it is supported by Nielsen (a global measurement and data analytics company) conducted a study in Asian countries, a research by Mintel among Brits and Yelp's Coronavirus Impact Report which has been conducted among US consumers. For instance, Yelp's Coronavirus Impact Report reveals that because of consumers spend more time in their homes, they generally changed their consumption habits in terms of eating out, shopping in bigger quantities and doing online shopping. Furthermore, consumers started to pay more attention for their own health and prevention (Yelp's Coronavirus Impact Report 2020;Nielsen 2020).

The research by Mintel reveals a "dramatic" shift in online shopping habits among Brits over the Covid-19 lockdown period. The report forecasts that the changes are expected to last beyond the crisis and the online grocery market is expected to grow by 33% in 2020. The report also states that there are some challenges when it comes to older consumers. While there has been a rise in online grocery shopping among the over 65s, in reality a significant

number of consumers in the older age groups have no experience shopping online for groceries or are not digitally native, therefore they remain offline (Speciality Food magazine, 2020).

3.3 The future demand of organic food

Last but not least, there are many discussions about the future of the organic market, as it is not without risks. Some articles and reports conclude that even though there will be an economic crisis as an effect of the pandemic, food consumption will not be affected as the demand for organic food will increase due to health awareness among people. They also state, that consumers eating habits may change permanently, once the world moves beyond the impact of the novel coronavirus (FAO,2020;Nielsen 2020). Additionally, many organic retailers are reporting that the online shopping for organic food products uptake has become higher and they expect to see this habit to continue during Post-COVID-19, therefore the demand will remain strong (Askew K,2020).

On the other hand, there are authors stating that organic food is a premium product and the economic downturn will have an impact on the spending power of the consumer especially when it comes to premium products. Therefore, because of the economic crisis, not everyone will be able to afford it even though they want to consume it (Byington L.,2020). For example, a report released by Mercaris (2020), which is a market data service and online trading platform for organic commodities, is seeking to answer how Covid-19 will impact the organic sector in the US market. The report concludes that already Millions of Americans have lost their jobs as a result of the outbreak, this limits what consumers can spend, therefore premium goods can drop. If consumers have less money to buy premium products and are left to pick between conventional and organic, they will likely choose the option that helps them save money and feed their families (Byington L.,2020).Therefore, the report predicts serious risks and challenges in the long-term to the organic market (Mercaris 2020).

To conclude, from these reports it can be seen that there is a behavioural change towards consumption, as people become more conscious towards their health and at the same time, they spend more time in their homes. Furthermore, there are two trends happening at the same time which has an impact on the consumption habits of the consumer. First, due to the pandemic there is and there will be an economic downturn, where consumers may have less

income to spend on premium products and have to choose the conventional counterparts to the organic products they typically purchase to cut costs. However, during health crisis, consumers across the globe become more health and quality conscious and are willing to pay more for healthy and nutritious foods (Askew K,2020).

3.2 General motives and barriers for organic food consumption

In order to get an understanding on what motivates consumers in normal circumstances (when there is no Covid-19 pandemic) and what are the barriers for buying organic food products, it is crucial to look at existing empirical studies and relevant literatures.

There is a significant body of research focusing on factors behind organic food consumption has emerged from countries around the globe. Therefore, in this section, existing literatures will be presented on consumers' buying behaviour in relation to organic food. The General Buying Behaviour will be presented in the Theoretical section of this project. This section will cover 2 main topics: the main **motives** and **barriers** of buying organic food products around the world and in Hungary.

3.2.1Consumer motivation towards organic food

Based on previous empirical studies, the researchers found in general positive attitudes toward organic products. Furthermore, there is a clear picture of the same reasons why people buy organic food products, although there may be differences in the order of preferences (Zanoli et al., 2002; Radman,2005; Magnusson, et al., 2003). The found motivational factors that stand behind organic food consumption are the following: organic food is healthier; it tastes better; environmental concern, concern over food safety; high quality, concern over animal welfare; and supports of local economy (Hughner et al., 2007; Paul and Rana, 2012;Gracia A,2007; Magnusson, et al., 2003).

In particular, consumers' health attitudes followed by environmental concerns have been found to be significant in explaining consumers' organic purchases (Fogarassy et al.,2019; Torjusen et al., 2004; Gracia A,2007; Padel and Foster, 2005; Hughner et al., 2007; Paul and Rana, 2012). For instance, a study conducted by Justin Paul and Jyoti Rana (2012), aimed to

find out what could be the influences on consumers' intention to purchase organic food. They discovered that the first item influencing the consumer was health followed by environmental concerns and taste. Furthermore, even if customers notice the higher prices of organic food, they still believe this is the price for the healthy and quality contents (Paul and Rana, 2012). Additionally, some literature states that the general motives among European consumers for purchasing organic food products are: food safety and health concerns due to previous food scandals and pandemics in Europe. Surprisingly, GMO free being of organic food is not so much important among European consumers in spite of the argument in the media (Hamm and Gronefeld, 2004;Wier et al.,2005).

Besides the health and environmental concerns, some studies conducted in Europe found a correlation between income and education, where this correlation positively affects organic food purchase. The studies conclude that consumers with higher income and education are more likely to buy organic food products (Torjusen et al., 2004; Wier et al.,2005; Iqbal, M.,2007.; Gracia A, 2007; Radman 2005).

Furthermore, organic product knowledge is an important influencing factor because it represents the only instrument that consumers have to differentiate the attributes of organic products from those of conventional ones, and to form positive attitudes and quality perceptions toward these products. If consumers are aware of the benefits, they are willing to pay the higher prices (Radman,2005;Hughner et al., 2007, p.103). This knowledge can be affected by information provided by the country's public administration, mass media, ecological associations etc., thus it depends on the information available on the market (Gracia A, 2007:442).

3.2.2The main barriers for buying organic food products

On the other hand, multiple study findings concluded that there is a number of common reasons and barriers for non-purchase of organic food: high price; low income, lack of availability; scepticism about organic labels; insufficient marketing; and satisfaction with current food source (Hughner et al., 2007; Padel & Foster, 2005; Radman, 2005; Zanoli & Naspetti, 2002; Fogarassy et al.,2019).

Price is the number one barrier of organic purchases. Consumers who may be seriously interested in purchasing organic food, but do not have the financial means to do so, often opt

for the cheaper alternative (Lucas et al.,2008; Hughner et al., 2007)Furthermore, as it has been mentioned above, some consumers do not have the sufficient information about organic products and their benefits, therefore they do not understand why organic prices are higher than the conventional ones (Gracia A, 2007; Radman,2005).

Additionally, a research conducted by Zanoli et al., (2002), focused on consumer perception and knowledge of organic products and related behaviour in Italy. The results showed that consumers perceive organic products as difficult to find and expensive. Some respondents were indicating that even if they have the intention to buy, organic food is not available. On the other hand, most of the respondents perceived organic food positively and associated them with health (Zanoli et al., 2002).

Furthermore, demographic factors were examined in a number of studies as influencing factors to buy organic food. Especially gender, age and education were found to be significant factors influencing the intention to buy organic food. The organic food buyers tend to be older, with children, and have a higher education level than those of non-buyers (Torjusen et al., 2004; Wier et al.,2005; Gracia A.,2007; Magnusson, et al., 2003;Fogarassy et al,2019).

3.2.3 Previous studies on the Hungarian organic market

Finally, some empirical studies on organic foods and consumers have been conducted in Hungary, which will be used throughout this research. The studies mainly used quantitative methods and investigated organic food consumption behaviour from several perspectives.

Although none of the Hungarian empirical studies specifically analysed the factors affecting organic food purchase during a health scare, some of them have studied factors affecting consumer's purchases of organic food (Fogarassy et al.,2019, Szente et al.,2015; Hofer M.,2009).Some of them have investigated the behavior and characteristics of Hungarian organic food consumers (Szente V,2015, Tőrcsik M,2017). Some have studied the purchase channels, consumers' attitudes towards organic foods and the organic agricultural market in Hungary (Drexler D.,2013; Frühner F.,2012).

The main findings are that consumers' interest in organic foods in Hungary is driven by the perceived health benefits associated with consuming goods free of chemical additives,

solidarity with local producers, and the associated environmental benefits. However, among Hungarian consumers, “Price” is the most influential factor on shopping decision, followed by quality and health benefits (Szente V.,2015: Fogarassy et al.,2019).

4th Chapter-Theoretical Framework

In this section of the project, the relevant theories in relation to the nature of the problem formulation will be presented. The relevant literatures (which can be found more detailed in the literature review section) will be used to support /complement this section as well, as it already covers the purchase behaviour during the Covid-19 pandemic and the general motivational factors and barriers that influence organic food purchase decision.

The study of organic food purchasing behaviour is difficult because organic food products are available in the market together with conventional ones, and the purchase decision depends on many factors that can vary across individuals (Gracia A,2007).Therefore, in normal circumstances(when there is no pandemic), consumers’ purchasing intentions towards organic products are impacted by many factors. For this reason, the Consumer Behaviour will be presented first, in order to get a general overview on what processes consumers going through and the different influencing factors during their buying processes. In connection to the Buying Behaviour of consumers, the explanation of the Theory of Planned Behaviour will be followed.

1: Buying Behaviour

This section will cover only the relevant parts from the Buying Behaviour in relation to organic food consumption. Additionally, there are some parts of the Buying Behaviour (consumer motivation and barriers) which have been covered in the literature review section therefore it will not be mentioned in this section.

Since the main focus of this project is to get an understanding on how does the Covid-19 pandemic has affected the organic food consumption practices among Hungarian consumers, it is essential to understand how they behave in normal circumstances (where they shop, how often etc.,) when choosing to consume organic food products (Schiffman et al., 2007:3).

Consumer behaviour is a complex phenomenon and there are many definitions for it. For instance, Michael Solomon, who is one of the most well-known scholars on consumer behavior (1973), defines the consumer behaviour as: “consumer behaviour is the study of the processes involved when individuals or groups select, purchase, use or dispose of products, services, ideas or experiences to satisfy needs and desires” (Solomon et al., 2010:6) It includes what they buy, why they buy it, when they buy it, where they buy it, how often they buy it, and how often they use it. It consists of ideas, feelings, experiences and actions of consumers (Jisana T. K,2014:34; Schiffman, 2007, p. 3).

Factors influencing consumer behaviour

Part of the consumer behaviour is the Consumer Decision Making process. The Consumer Decision Making process is involved in all processes in which people go through every day without even realizing it (Solomon et al.,2010:259). Consumer decision is a complex process, but it typically tend to follow five stages such as: problem recognition, information search, evaluation of alternatives, product choice and outcome evaluation (Solomon et al.,2010:258). Since the Covid-19 pandemic is an exceptional situation, where consumers might exclude some steps, the steps in Consumer Decision Making process will not be explained further on.

The consumer decision making process can be influenced by many factors**.** These factors can be grouped based on if they are external or internal influences (Hawkins, 2007, p. 6).

External Influences

External influences are forces that are basically outside an individual. Among external influences can be Social factors (reference groups, family, friends), culture and subculture, economic factors, environmental, marketing activities, “health awareness” and so on (Hawkins et al., 2007).An emerging external factor and in connection to this project is the change of eating habits, as most of the societies start to choose more healthy diets (Hannah R.,2020). It is important to mention, that in relation to the nature of this problem formulation the author of this thesis has not found “health scares” as an influencing factor in existing theories, but decided to classify it as an external environmental influencing factor as it seemed to be the most relevant.

Social Factors

People live in a complex social environment where they are surrounded by several people (Reference groups) who has direct or indirect influence on the person's attitudes or buying behaviour. A reference group is "any person or group that serves as a point of comparison for an individual in forming either general specific values, attitudes, or a specific guide for behaviour" (Schiffman et al., 2007, p.312). Family and close friends are considered to be primary reference groups in an individual's life (Schiffman et al., 2007:326).

Culture and subculture

Culture have a big influence on consumer behaviour. Culture refers to "the sum total of learned beliefs, values, and customs that serve to direct the consumer behaviour of members of a particular society" (Schiffman et al., 2007, p. 394). Cultures can be also divided into various subcultures. Major subcultural categories are nationality, religion, geographic location, race, age, sex. However, not in all countries plays subculture an important role(Hawkins et al., 2007:158).

Economic Factors

Consumer behaviour is heavily depending on the economic situation of a country or a market. When a country has a positive economic environment, consumers are more confident to spend on products. On the other hand, if a country has a weak economy it reflects a struggling market that is impacted by unemployment and lower purchasing power of consumers (OECD,2020). There are many economic factors which can affect the purchasing power of the consumers, however in this study the personal income is the most relevant one.

Personal income influences buying behaviour as it determines the level to which the amount is spent on the purchase of goods and services (Clootrack,2020).

Internal influences

Internal influences are processes that occur primarily within an individual consumer decision making and is influenced by psychological factors. Among psychological factors belong

motivation, perception, learning, personality, lifestyle and attitude (Hawkins et al., 2007).In this section only the relevant ones will be described.

Consumer Motivation

Consumer motivation refers to "the driving force within individuals that impels them to action" (Schiffman et al., 2007, p. 83). Motivation is produced by a state of tension that is the result of an unfulfilled need. Every person has different needs where some of them are more pressing while others are least pressing (Schiffman et al., 2007).

Attitudes and Beliefs

According to Hawkins et al. (2007), "an attitude is an enduring organization of motivational, emotional, perceptual, and cognitive processes with respect to some aspect of our environment" (Hawkins et al., 2007, p. 396). Additionally, based on the various roles of a person, beliefs, values and attitudes are constantly interacting with their reference groups (Kumar,2018). In relation to this project, a new or existing product's future demand can be predicted by measuring consumers' attitude (Hawkins et al., 2007, p. 396).

The formation of an attitude refers to the shift from having no attitude towards an object to having some attitude toward it (Hawkins et al., 2007). Attitudes are formed by learning. Factors like change in environment, personality, personal experience, ideas and experience of friends and family members, direct marketing etc., are strongly influencing attitude formation (Hawkins et al., 2007).

Attitude change is influenced by the same factors that have an impact on attitude formation (Hawkins et al., 2007). It means that attitude change is also learned. Furthermore, consumer's personality affects both the acceptance and the speed in which attitudes are likely to be changed.

Lifestyle

Lifestyle can also influence buying behaviour in a great extent. Lifestyle refers to the way a person lives in a society and is expressed by the things in his or her surroundings. It is determined by customer interests, opinions, activities etc., and shapes his whole pattern of acting in the world (Jansson-Boyd, 2010, p. 172).

Personal Factors

There are several personal factors to the individuals that influence their buying decisions and attitudes towards products. For instance, when consumers are of different ages and life stages, the motivations behind a consumer's purchases will differ from those consumers who do not have the same profile. The occupation of a consumer can be an influencing factor as well, since it will determine their income, social status, and their interests, which has an influence on purchase decisions (Jisana T.K,2014:36).

Price

Another influencing factor, what the researcher finds crucial to investigate is the price. The price factor can play a significant role why some people might choose to consume organic food products, especially during a time of a pandemic (Jansson-Boyd, 2010, p. 182-183). As it has been mentioned before, it is a significant barrier as consumers who may be seriously interested in purchasing organic food, but do not have the financial means to do so, often opt for the cheaper alternative (Lucas et al.,2008).

Considerations of the Buying Behaviour

In relation to the mentioned influencing factors, from the constructivist point of view, there is no ultimate truth in what motivates or influences people and thus it can be argued that every individual has his or her own reasons for what to purchase and why. Therefore, it is hardly possible to find a universal answer on what motivates consumers when it comes to purchasing organic food products and what are the changes in their behaviour as a result of Covid-19. However, in order to get a better picture about Hungarian consumers and why, when, how they consume organic food, the consumer behaviour is a good way to apply (Jansson-Boyd 2010: 126).

2: Theory of Planned behaviour, 1991

The Theory of Planned Behaviour (TPB) is one of the most influential conceptual frameworks for studying human action and it is widely used for a variety of topics. The theory was developed by Icek Ajzen (1991), who has been ranked as the most influential scientist within social psychology, moving from the earlier Theory of Reasoned Action (TRA), which was developed by Fishbein & Ajzen in 1981 (Ajzen,2011:1113; Tornikoski, E.,2019).

The TPB differs from the TRA, as it adds an additional component able to take into account both real and perceived difficulties that a person may experience in relation to the act of performing (or not performing) a certain behaviour. This component is called the Perceived Behavioural Control (Ajzen,1991:181). Since organic consumers might experience many difficulties as a result of the Covid-19 restrictions, the researcher found it essential to apply it to this research.

The theory is designed to explain and predict behaviour in a specific context. A central factor in this theory is an intention to perform certain behaviour. There is a general rule, the stronger the intention to engage in behaviour, the more likely should be its performance (Ajzen, 1991). The TPB has been widely used by previous researchers for explaining consumers intention to buy organic food and to predict and examine the demand (Chen, 2007; Magnusson et al., 2003; Gracia et al., 2007; Tarkiainen et al., 2005; Olivová K.,2011). Additionally, when it comes to pandemics or disasters, some studies have used this model (by adding factors or incorporating elements) as a basic theory to understand consumers' buying intentions when the economy is unstable (Ngoc L,& Khoi, B, 2020:3).

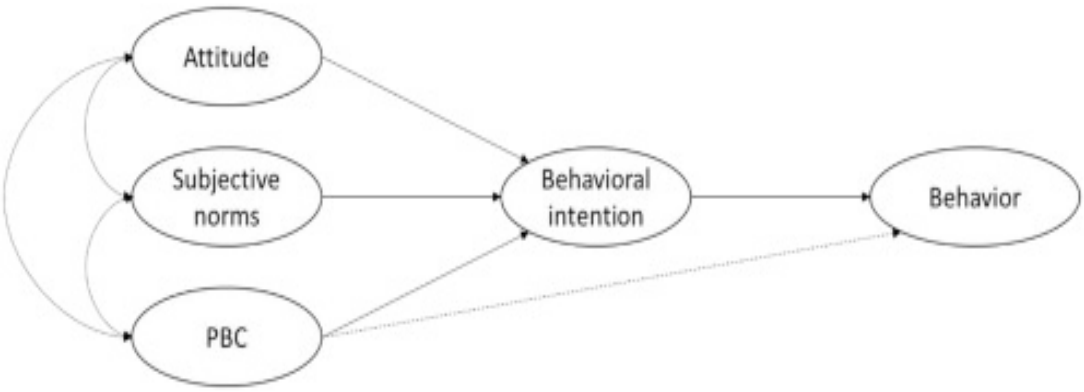


Figure 2: The original model proposed in the Theory of Planned Behaviour (Ajzen,1991)

As it can be seen from the figure above (Fig. 2)., the Theory of Planned Behaviour is taking into account three fundamental aspects of human behaviour: personal attitude, subjective norms, and perceived behavioural control. According to the theory, these three aspects are the basic antecedents of the intention to engage in a certain behaviour, which in turn

mediates their relation with actual behaviour (Ajzen, 1991, p. 191). To understand the purchase intentions of consumers, first it is important to understand these three constructs of the human behaviour.

1st component: Personal attitude

The first variable of the TPB model is the personal attitude. Attitude reflects individual preferences to perform or not perform a behaviour (Ajzen,1991:188). In detail, it expresses the global positive/negative evaluation of individuals about a certain behaviour: the more positive the attitude, the stronger will be the intention to express such a behaviour (Gracia A.,2007).

In the specific context of organic food consumption, researchers found in general positive attitudes toward organic products and they argued that attitude appears to play a crucial role in shaping behaviour, by directly affecting buying intention(Zanoli et al., 2002; Radman,2005).However, the strength of the association between attitude and behavioral intention in the case of organic food consumption largely varies among studies(Scalco et al.,2017:237).Thus, even though many studies stated the crucial role of attitude in shaping buying intention, the strength of this association still remains unclear.

2nd component: Subjective norms

The second component which will lead to the formation of behavioural intentions is the Subjective Norms. Subjective norms are defined as subjectively perceived normative pressures from other individuals and how individuals should behave based on group approval of a particular behavior(Ajzen, 1991, p.195).

In connection with the previously mentioned social influences, based on previous studies, it has been suggested that the most relevant source of social influence in relation to organic food choice comes from family and friends (Scalco et al.,2017:237.) Furthermore, several works argued the moderate impact of SN in relation to the consumption of organic food, therefore this component of TPB might represents the weakest amongst the constructs of the model (Scalco et al.,2017:238).

3rd component: Perceived behavioural Control

Finally, the PBC describes the perceived ease or difficulty an individual has for performing (or not performing) a behaviour. The PBC account for situations where an individual has less than complete control over the behaviour (Ajzen 1991:184; Scalco et al.,2017:237). In Ajzen's (1991) theory, the control factor can be divided into internal factors and external factors. As

it has been mentioned before, there can be many factors influencing buying behaviour and buying intention.

As in the attitude case, the strength of PBC on buying intention varies across studies. Thus, some concerns regarding the influence of the perceived behavioural control on buying intention related with organic food still remains unresolved (Scalco et al.,2017:237).

Added component: "health consciousness,"

Due to previous health scandals and the current Covid-19 pandemic, many consumers became concerned about their health and prevention (Naja F.,2020). The findings from previous studies are, that health is the primary factor of consumer purchase intention in many countries(Magnusson et al., 2003; Zanoli, 2004 Padel & Foster, 2005). Additionally, Torjusen et al. (2004) found that attitudes towards the health attribute of organic foods have been statistically significant to explain organic foods choice (Torjusen et al., 2004).

Since health is an important factor when it comes to investigating organic food purchase behaviour during Covid-19 pandemic, therefore, the TPB, with the addition of one more construct, namely, health consciousness, will be used to investigate organic food purchase intention during Covid-19 pandemic.

Additionally, besides some studies used the TPB model (by adding factors or incorporating elements) to analyse purchase intention during a disease (e.g. Deng et al., 2017; Paton, 2003) The researcher could not find any existing established theories which can be used to explain organic food consumption during a pandemic (Ngoc L,& Khoi, B 2020:3).

5th chapter- Analysis

Having defined the problem area of the thesis, outlined the theoretical framework and the methodological considerations, the focus now shifts to the empirical analysis.

The analysis section will be divided into two parts. The first part will be based on secondary data sources about the current effect of Covid-19 in Hungary, general characteristics of Hungarian consumers and organic consumers generally. The second part will be based on the

qualitative survey analysis, which will be divided into further subsection. Furthermore, in the second section, during the analysis of primary data, the findings from the first section will be used as a back-up unless they will be contradicting to what is revealed from the survey.

4.1 COVID-19 Outbreak in Hungary

As it has been mentioned in the limitation section of this project, unfortunately, during the time of this thesis writing there are not many available reports about the effects of Covid-19 on Hungary. However, there are some available reports about short-term effects and forecasts. Therefore, in this section these reports will be presented.

The available reports and articles stating that the COVID-19 pandemic has pushed the world into a recession. The economic damage is mounting across all countries around the globe. According to the forecasts, the effect of the pandemic on countries economy will be worse than the 2008 Global Financial Crisis (Bluedorn et al.,2020 and UN, 2020). The 2008 Global Financial Crisis- among many sectors- has also affected food consumption and pushed back the consumption of organic products (Gyarmati G.,2018:59).

Hungary's economic output grew slightly in the first quarter of 2020 despite the onset of the global coronavirus pandemic, but the country will be in recession in the rest of the year, according to economists. According to the forecasts, there will certainly be recession in the second quarter and the rate of recover depends on how fast coronavirus will be gone and whether there will be a second wave in the epidemic (Portfolio,2020).

Covid-19 measurements in Hungary

Hungary’s response to the COVID-19 outbreak was assertive and immediate: as soon as the first cases were discovered in early March 2020, the government shut down all businesses and activities. Whereas this fast reaction succeeded in containing the spread of the virus, it has also adversely impacted the country’s economic health, even though that funds have been set aside to combat COVID-19 and assist the economic and employment situation (Statista, 2020:6).

From the 28th of March 2020 the Hungarian Government has introduced a partial curfew in the whole country until the 11th of April 2020. The partial curfew decree imposes restrictions on movement, that is, residents are not allowed to leave their homes without a good reason. Violators of the restrictions can be fined between HUF 5000 and HUF 500 000.
In practice, this means the following(only the relevant ones are listed):

- Residents can still go shopping for essentials and can also go to work.
- Grocery stores, pharmacies, personal hygiene stores and markets will remain open, but residents above the age of 65 are only allowed to visit these between 9AM and 12 noon. During these hours younger residents are not allowed in the stores.
- Restaurants have to close, and can only provide meals for takeaway or home delivery.
- Everyone must keep at least 1.5m distance from each other at all times in public places, including stores, public transport and the street (Budapest Business Journal,2020)

These restrictions especially the 9-12 a.m. shopping time slot which has reserved to the 65-and-overs - who are at higher risk of getting sick because of the coronavirus, created many disadvantages for several consumer as it had a great effect on their general shopping habits (Budapest Business Journal,2020).

However, the most devastating effect of the virus and the restrictions is the emergence of mass unemployment, which can have a snowball effect on all other sectors. The government expects hundreds of thousands of people to become unemployed (Cseresnyés P.,2020). According to the latest statistics, the unemployment rate in Hungary increased to 4.6% in June of 2020 from 3.3 percent a year earlier. It reached the highest rate since April of 2017, mainly reflecting the consequences of the coronavirus pandemic (Trading Economics,2020).

As it has been mentioned the economic factors are affecting consumer behaviour in a great extent. Therefore, the forecasts for recession and the increasing unemployment rate will certainly have an effect in the future for spending towards organic food products.

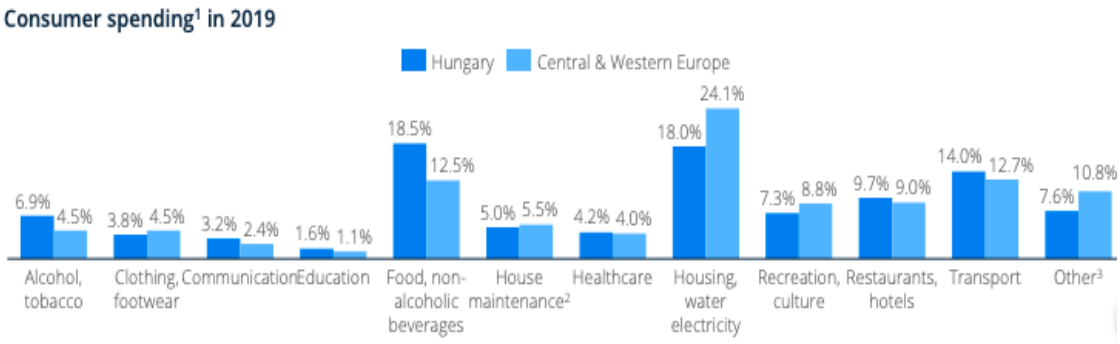
Hungarian Consumers Generally

Hungarian food consumption habits have recently been influenced by several trends, such as the trend of convenience, health and wellness, environmental consciousness, search for experience and ethical consumption (Fogarassy et al.,2019:2).For this reason, Hungarian consumers are expressing a growing interest in high quality convenience foods, such as the organic food products (NordeaTrade,2020).

As it has been mentioned, organic products have a higher price in Hungary, therefore they count as premium products. For this reason, it is important to look at some economic factors when it comes to spending on premium products such as the organic food.

For instance, household net adjusted disposable income represents the money available to a household for spending on goods or services. In Hungary, the average household net-adjusted disposable income per capita is USD 33 604 a year, which is lower than the OECD member countries average. Therefore, Hungary counts as a “low income” country (OECD BLI, 2020 and Statista, 2020:10).

Consequently, when it comes to household income, it is important to look at how much is spent on food from it. A positive factor is that Hungarian people spend the most from their household income in the area of "Food and Non Alcoholic beverages" (figure 3). According to the latest data, in 2019, Hungarians spent 18,5% on their household income on Food and Non Alcoholic beverages, which is higher than the European average(Statista,2020:10). Besides the fact that consumers spend the most in the area of food and beverages, Hungarian consumers have high food price sensitivity, a commonly shared feature of Central and Eastern European Countries (Lehota 2012 and Balázs,B., et al,2015:13).



(Figure 3-Consumer spending 2019 adapted from: Statista,2020)

Furthermore, when it comes to consumer spending, from the figure below (Figure 4), it can be seen that the consumer spending has been increasing since 2016, however as a visible effect of Covid-19, in 2020 ,it is forecasted to decrease similarly to the 2018 level. Whereas, for the future, it is forecasted to grow in a great extent (Statista Country Report, 2020:59).

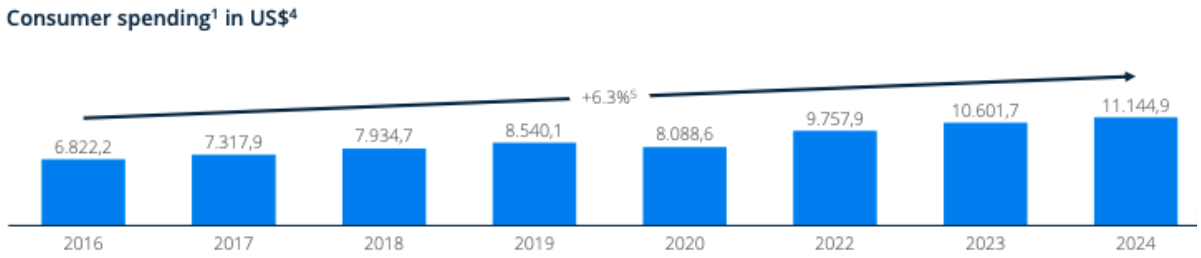


Figure 4-Consumer spending adapted from: Statista,2020

As it has been mentioned before, when it comes to organic food consumption in Hungary, it was at low level in the last decades. Even though that Hungarians spend the most on their income on the area of food and beverages, from that it has been estimated that less than one percent of total average Hungarian household expenditures on food are used to procure organic products (Szente V, 2015:32).Consequently, when it comes to annual organic food consumption per capita, Hungary is being placed as the third worst value in the EU, after Romania and Bulgaria. According to the latest data (2019), Hungarians spend 3 euros average per year on organic food. This is a very low amount compared to other European countries. For instance countries with the most developed organic sector (Denmark, Austria, Switzerland) spend more than 100 euros per capita (BioKontroll,2019 and Szente V, 2015:33 and Willer et. al 2013).

This low spending on organic food products could be due to the reason that the prices are high for organic products whereas Hungary is one of the countries with the lowest wages is the entire Europe (Vass Á.,2019).

Hungarian consumers and health problems

The researcher does not want to go into great detail but considers it important to mention, that back in the second half of the last century, Hungarian's eating habits were very unhealthy. As a consequence, their health conditions started to worsen (Hofer M.,2009:64).

Even thought that the majority of Hungarian people started to be more conscious towards their health and what they eat, till recent times, Hungary is one of the top European countries with the most illnesses. This may be related to poor eating habits (Hofer M.,2009:64).This assumption is also confirmed by Philadelphia's most recent research(2017),where the findings are that Hungarians still do not pay close attention to themselves. They eat meat with meat, do not sport a lot and do not consume enough vegetables and fruits (Trademagazin, 2017).

This unhealthy food consumption can be due to some cultural traits. 'Hungarian', as a national character appears through food as well. Dishes considered as 'traditional Hungarian' (gulyás, blood sausage, pörkölt, stuffed cabbage) are typically very heavy and made of meat (Balázs et al, 2015:18).

In relation to diet and health, it is important to mention that Hungary is in a very bad state of obesity. According to the OECD 2019 report, 30 percent of the adult Hungarian population is obese, and the proportion of overweight people, including those who are obese, is double that (Világ Gazdaság, 2019). This means that Hungary is among the top three countries in Europe in terms of the proportion of obese people, and the fourth in the world after the USA, Mexico and New Zealand (Gaál B,2019).

Many Hungarians who started to eat more healthier is due to the reasons that they want to lose weight, they fear of food hazards and foodborne diseases. Since the organic food is controlled, eating organic food can be a solution for a great part of the consumers and their mentioned health problems (Fogarassy et al.,2019:2).

The organic consumers in Hungary- Characteristics and General Buying Behaviour

According to previous studies about Hungarian consumers, four common Hungarian organic consumer profiles can be identified:

• Health Conscious: Consumers who identify with the health benefits associated with organic products. They consume healthy products because they want to prevent or cure illnesses.

• Young Families: Consumers who have recently had children and have become more health conscious as a result of this. For instance, during the financial crisis, the families focused their spending on their children and they choose an organic baby meal which they think safer and healthier as compared to others.

• Motivated by Trust: Consumers who are motivated with the knowledge of who has produced food items they consume and where they have originated, they may also be motivated by knowing and supporting the individual who has produced their food as opposed to supporting a faceless corporation or distant producer.

• Environmentally Conscious: Consumers who are motivated by the positive environmental and sustainability attributes of organically produced food (Drexler & Dezseny 2013, Fogarassy et al.,2019:4 and Balázs et al, 2015:13).

Other findings are that the age of a typical organic product consumers is between 25 and 44 years, a significant proportion of whom are middle-class women. It is important to note, in the Hungarian culture, it is mostly the woman who does the household consumption. From the lower classes, the main buyers of organic products are families with small children (Dr. Kádár A.,2017 and Fogarassy et al.,2019:4).

Main motivational factors for organic consumption among Hungarians

According to the latest studies among Hungarian consumers, the main influencing and motivational factors in order are:

Price-also featured as a purchase obstacle-has been ranked as the most influential factor on shopping decision, but the main reasons for purchasing organic products in accordance with other studies(Torjusen et al., 2004;Padel and Foster, 2005; Hughner et al., 2007; Paul and Rana, 2012) is the perceived health benefits associated with organic food products (Fogarassy et al.,2019:3;Szente V, 2015:32;Hofer M.,2009:198). Health reasons is followed by the perception of high quality. On the other hand, taste, nutritional value are less important motivating factors, and environment protection plays a minimal role for most Hungarian consumers (Drexler & Dezseny 2013:241; Fogarassy et al.,2019:2).

When it comes to influencing factors in the purchase decision the most important influencing factors are the price, freshness, food-safety, and the availability of the products. The least important ones are the direct personal contact with the farmers, origin, the producing methods, the degree of promotion and the accessibility of products (Szente V.,2015:36; Fogarassy et al.,2019:3).

Main barriers and obstacles for organic food consumption

Based on previous studies and surveys, before the COVID-19 pandemic, the main barrier for buying organic products among consumers were the high price, the doubt about authenticity and the alleged benefits of organic products(lack of trust in labels), and the lack of availability of the products (Szente V, 2015:35). The high price as the main influencing factor can be associated with the general low average salaries and income among Hungarians (Wynn A.,2019;Hofer M, 2009:198).Therefore it can be said that Hungarians are very price sensitive (Szente V, 2018:1 ;Szente V, 2015:32;Fogarassy et al.,2019:3). Further identified barrier is that many consumers are not aware or well-informed about the benefits of organic products (Hofer M, 2009:152; Drexler & Dezseny 2013).

Other Factors Influencing consumer decision for organic food products

Promotion

Campaigns encouraging the consumption of Hungarian products, including the labelling of products containing domestically produced ingredients have been in existence for years, but specific programs for marketing domestically produced organics have not been implemented effectively (Balázs et al, 2015:13). This is also confirmed by Szente et al., (2015), where they conducted a survey among Hungarian organic consumers and the findings are that the least important factors among consumers is the advertisement of the products. This could be related to the issue that there are not that many organic brands in Hungary, and none of the firms aim at emphasizing their own name (Szente V., 2015:37).

Point of purchase before the pandemic

According to the latest available research on organic consumers from 2012 (!!), the purchase channels among Hungarian consumers were the following: Supermarkets and hypermarkets were contributing to 60% of the purchase channels. This was followed by Specialized stores (bio, öko shops):20%, Organic markets, fairs, events: 6-10%, Online: 6-7% and Farm sales: 2-

3% (Frühwald,2012:12). As it can be seen, before the pandemic buying online and buying directly from producers was the least favoured option.

Analysis part 2

This section of the analysis will be divided into subsections. The section will begin by giving an overview of the respondent's key information of the collected data. The descriptive findings presented in the following. This will be followed by the TPB and the additional component, " health consciousness" analysis. The next subsection will display the additional findings from the opened questions. All the statistical descriptive data can be found in the Appendix 5.

Section 1: Descriptive and Demographic Characteristics of the Sample

The purpose of the demographic analysis in this research is to describe the characteristics of the sample such as the number of respondents, proportion of males and females, range of age and occupation.

The total number of respondents for the initial survey was 230 (n=230). However, several questionnaires were not filled properly, had a lot of missing data or not completed fully. For this reason, the researcher decided to exclude 61 respondents, and include the ones for data analysis who answered to the survey completely due to data variability and reliability. For this reason, in total, 169 respondents were used for the final analysis.

1.Demographic Characteristics of Hungarian consumers

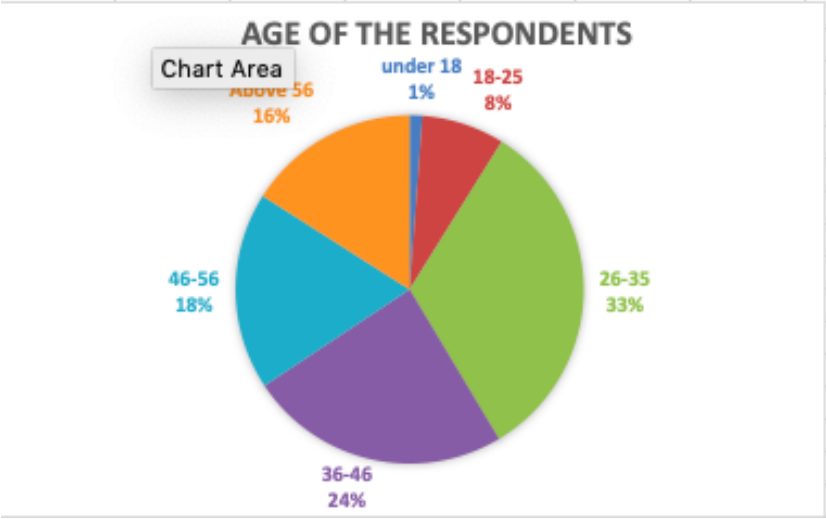


Figure 5: Age distribution of the sample

The age group was divided into six different ranges. As it can be seen from Figure 5, the age distribution of the respondents were mainly from the age between 26-35 years (33%). The second largest age distribution were among the 36-46 years (24%). The third largest age group were among the 46-56 years (18%), this was followed by 56 years or older (16%).The age group between 18-25 years contributes with 8% to the respondents age distribution .

2.Gender

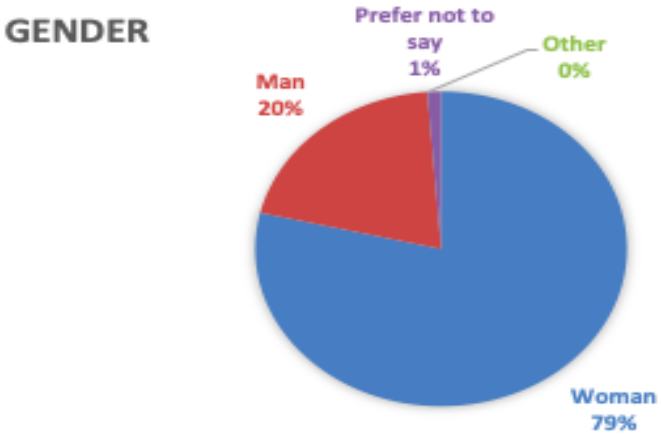


Figure 6-Gender distribution

As it can be seen from Figure 6 , the mass majority (more than ¾) of responders are females (79%), while 20% are males. This can indicate that shopping even nowadays is a special gender-related issue in Hungary (Törőcsik, 2017:35).

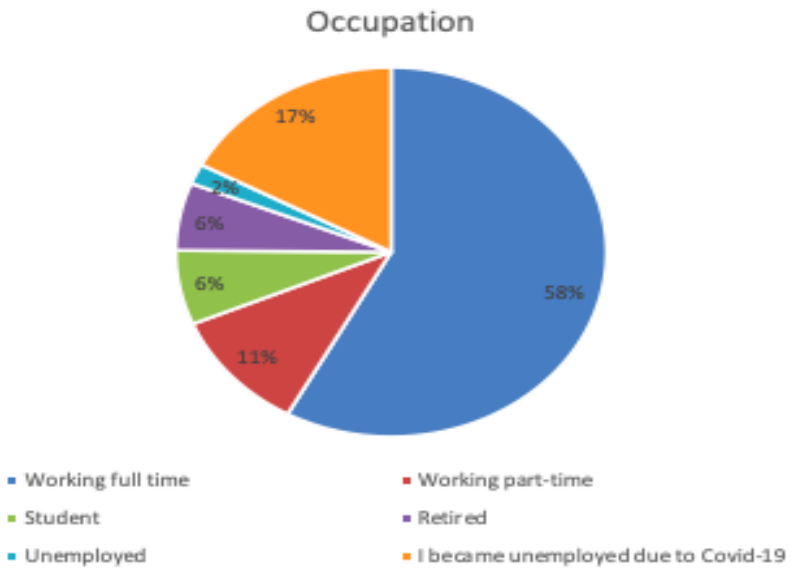


Figure 7 Occupation of the sample

When it comes to the employment status, it is important to note that the survey was implemented almost 3 months after the first crisis measurements and the appearance of the Covid-19 in Hungary. Based on the answers, it can be seen that the majority (58%) is working full-time, while 11% of the respondents are working part-time. With equal distribution, 6% of the respondents are students and 6% of the respondents are unemployed. In this sample, 2% of the respondents are unemployed, and 17% of the respondents lost their jobs as an effect of Covid-19. This high proportion of unemployed respondents indicate that there are already some negative changes in the labour market.

4. Concern over environment

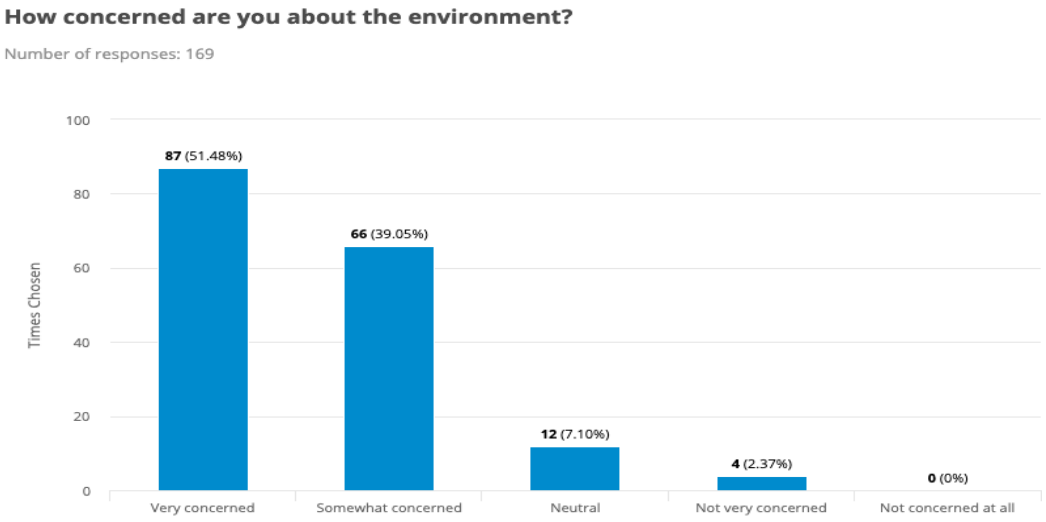


Table 4-Environmental Concerns

Since there is no available up to date research on the Hungarian market, the researcher wanted to measure the attitude towards environment of the respondents. Consequently, as previous studies were stating (Fogarassy et al.,2019; Torjusen et al., 2004; Gracia A,2007), environmental consciousness is an influencing factor in a great extent for purchasing organic food products. As it can be seen from table 4 majority of the respondents (51.48%) are very concerned towards the environment, 39% of the respondents are somewhat concerned. On the other hand, only 7% of the respondents stated that they are neutral and 2 % were not very concerned. None of the respondents choose the answer “not concerned at all”. Based on this, it can be concluded that all of the respondents are concerned towards the environment in some ways.

5: Purchase Frequency before Covid-19 and buying intention in the future

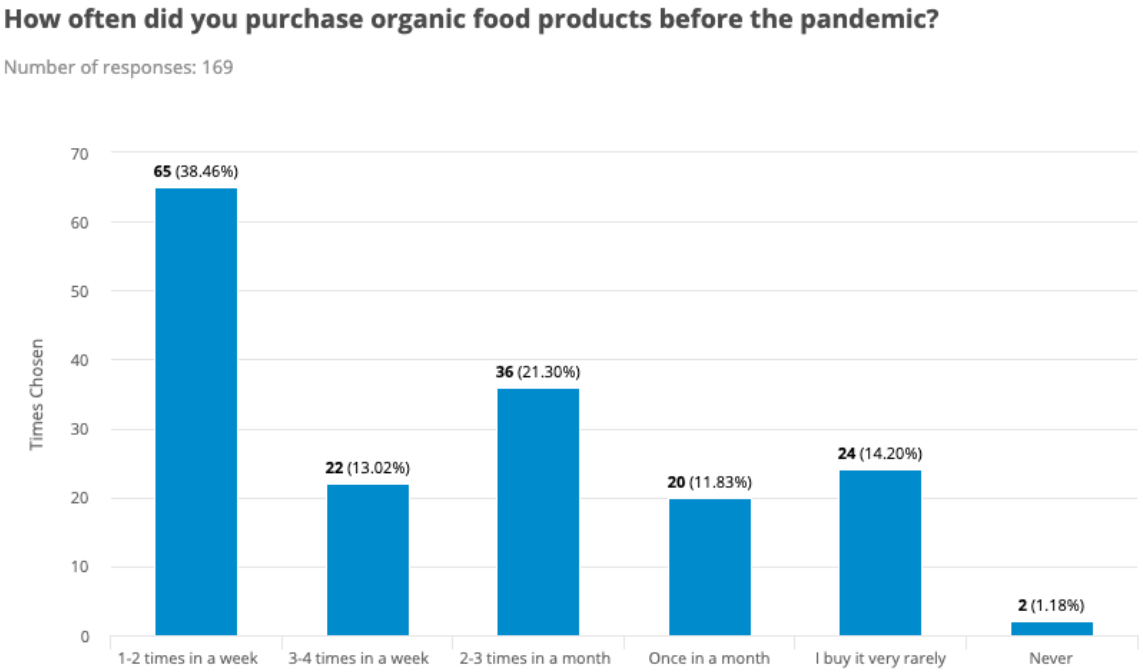


Table 5

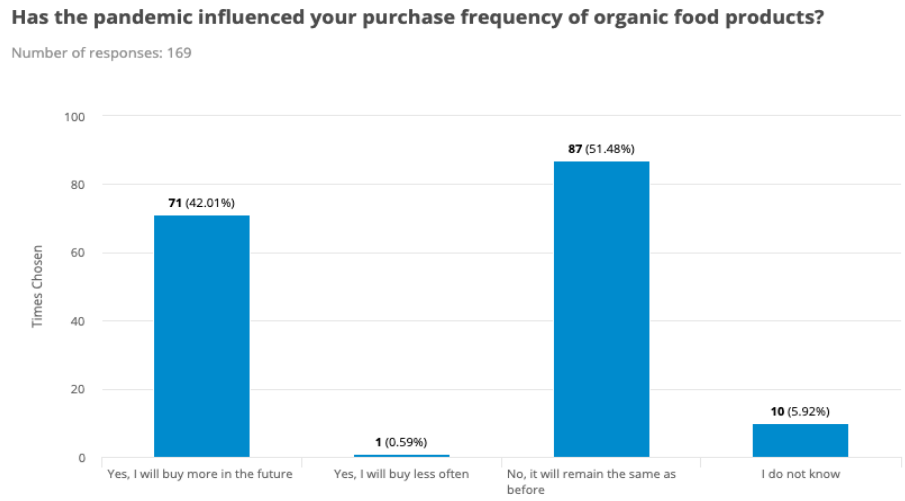
Purchase frequency is one of the factors which can impact the purchasing intention. With this question the researcher wanted to get an overview on how often consumers were buying organic products before the pandemic. As it can be seen from the respondents' answers, the sample was highly diversified regarding the frequency of purchasing such products(Table 5). Additionally, based on these results, it is possible to distinguish the segments of regular (more than once in a month) and occasional (once in a month or less) consumers of this type of food. Among regular consumers, 38,5% of the respondents were purchasing often,1 or 2 times in a week. 13% of the respondents were purchasing very often, 3-4 times in a week. 21% were purchasing 2-3 times in a month. When it comes to the less frequent buyers(occasional), 12% of the respondents stated that they were purchasing once in a month, 14% were buying very rarely. 1 % of the respondents never consumed before but did organic cultivation.

Furthermore, when it comes to gender differences in purchase frequency between man and woman, it can be seen that woman are more regular consumers 72% of them buy more than once a month, whereas man are more occasional consumers 65% of them were buying once ore less then month (Table 6).

Purchase Frequency	What is your gender?			
	Total	Woman	Man	Prefer not to say
Count	169	133	34	2
1-2 times in a week	38%	47%	9%	0%
3-4 times in a week	21%	20%	26%	0%
2-3 times in a month	13%	16%	0%	50%
Once in a month	14%	8%	38%	0%
I buy it very rarely	1%	1%	3%	0%
Never	12%	8%	24%	50%

Table 6-Gender and frequency

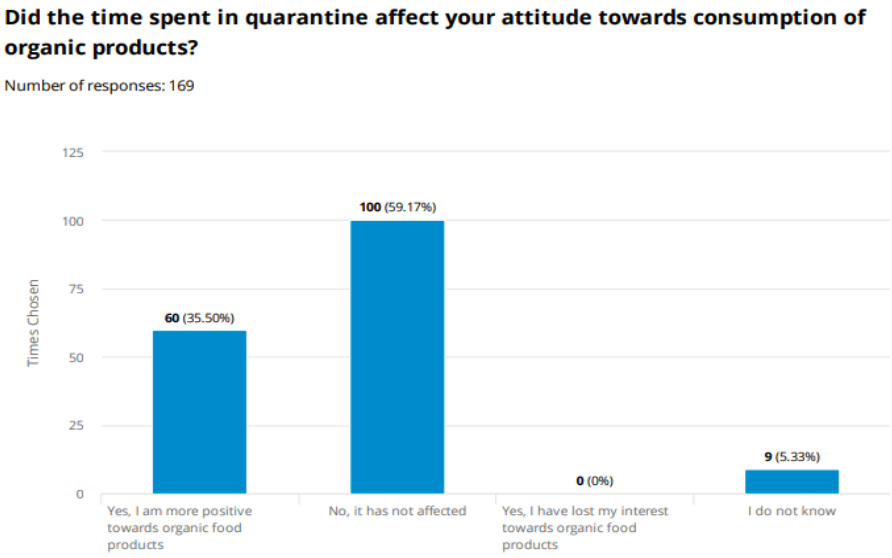
In relation to purchase frequency, the researcher was interested in knowing the respondents buying intention in the near future, as it can give an overview on how an external influence such as the Covid-19 pandemic can influence the purchase intention of consumers. For this reason, decided to measure if the respondents purchase intentions have changed or not changed as a result of Covid-19 (Table 7).



As it can be seen from Table 7, the majority of the respondents (52%) stated that the Covid-19 will have no influence on their purchase intention and they will buy with the same frequency as before. On the other hand, almost ½ of the total respondents (42%) stated that the pandemic has influenced their purchase frequency and they will buy more organic food in the future (This will be statistically proven in the 3rd section). Only one person stated that he will buy less often, indicating a negative change in purchase intention.

In relation to buying intention and the theoretical framework of this project, it is important to look at consumers attitude towards organic products. As it has been mentioned by previous studies, generally consumers have positive attitudes towards organic food products(Zanoli et al., 2002; Radman,2005).However, it is important to know, if the respondents have any change in their attitude towards consuming organic food products as a consequence of Covid-19 or the followed restrictions.

As it can be seen from Table 8, the majority of respondents (59%) stated that the restrictions and time spent at home had no effect on their attitude towards organic products. On the other hand, 60 respondents (36%) stated that the Covid-19 pandemic had an effect on their purchase intention, and they are more positive towards organic food products. 9 respondents (5%) stated that they do not know. No one mentioned that their lost their interest towards organic food products (Table 8).



(Table 8)Change in Attitude towards purchasing organic food.

Changes in Purchase Channels

The researcher was interested to investigate where did the respondents buy organic products before and after the coronavirus pandemic and if there is any change in that. Also, since the last available data about purchasing channels for organic food products is from 2012 (Frühwald,2012), a more up to date data is required. Additionally, since the curfew is an

exceptional situation, the researcher wanted to get an overview on the purchasing channels for organic products during the lockdown and other governmental restrictions. The results can give an overview and also aid the organic market actors for the preparation of a next pandemic.

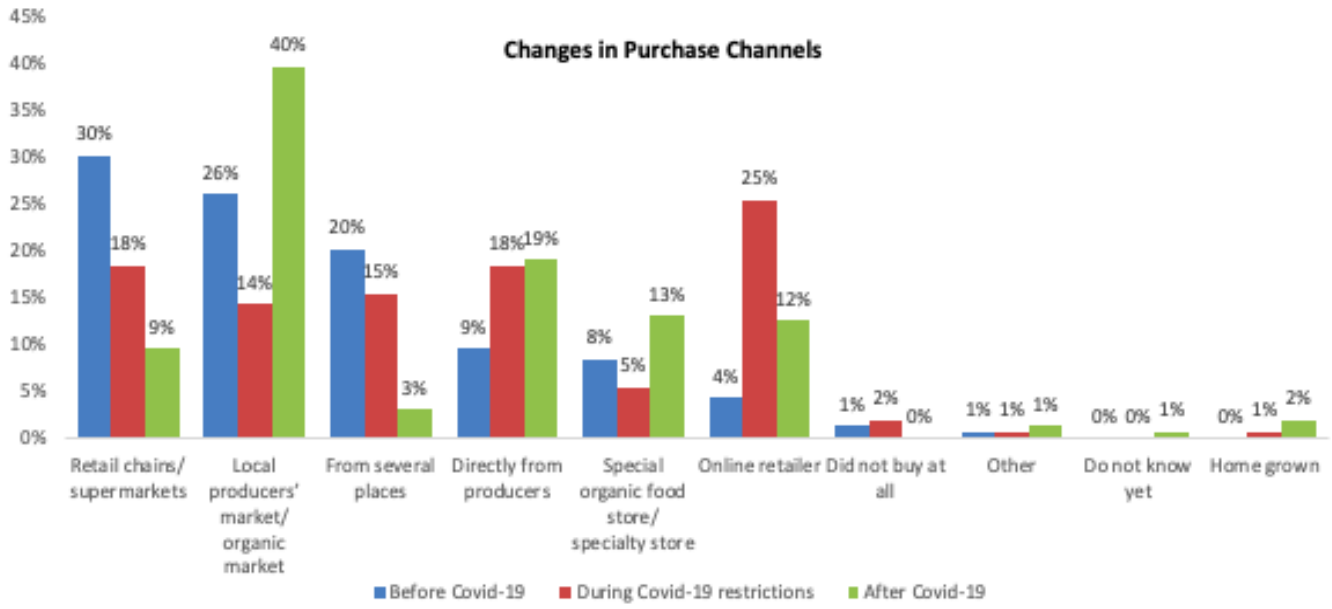


Table 9-Changes in purchase Channels

Purchasing channels before the Covid-19 pandemic

As it can be seen from Table 9, marked in blue, the distribution of the shopping channels were the following before Covid-19: 30% of the respondents preferred to purchase organic products from retail chains and supermarkets. This was followed by Local producer's market/ organic markets by 26% of the respondents. 20% of the respondents indicated that they buy organic products not just from one source, but from several places. 9% of the respondents choose to purchase directly from the organic producers, while 8% was purchasing from special organic food stores. Only 4% of the respondents indicated purchasing online before Covid-19.Respondents indicated as "other" were including packing free shop and own cultivation.

Purchasing channels during Covid-19 related restrictions

When it comes to organic food consumption during the Covid-19 related restrictions (marked in red), it can be seen that there were many changes in terms of purchase channel preferences. During the partial curfew, the most preferred purchase channel was purchasing online, according to 25% of the respondents. This was a 21% increase compared to pre-Covid-19 level. The second most preferred purchase channel was buying directly from producers by 18% of the respondents. This is a 9% increase compared to the previous level. Retail chains and supermarkets were preferred by 18% of the respondents. This is a 12 percent decrease from before the coronavirus situation. When it comes to the local markets, it also decreased by 12 percent as less people were visiting them during the restrictions (14%).The same applied for organic speciality stores with a 3% decrease compared to the previous level. Additionally, there was a 1% increase among the respondents stating that they did not buy at all during the restrictions.

Purchasing channels after Covid-19 related restrictions

When asked the respondents about the future plans on where will they buy the organic food products (marked in green), the following results occurred: As it can be seen from table X, the majority of the respondents (40%) choose local market as a preferred purchase channel once the lockdown is over or in the near future. This is in total 14% change from the pre-Covid-19 level when it was 26%. In the future the second most preferred purchase channel will be purchasing directly from the producers by 19% of the respondents. This is also a 10% increase compared to the pre-Covid-19 level. The third most preferred channel will be the special organic food stores according to 13% of the respondents. As it can be seen, purchasing online has decreased compared to how many respondents choose it during the restrictions, however it has still increased from 4%(pre-Covid-19 level) to 12 % for the future as a purchase channel preference. The most significant change is the future of the supermarkets as a source of purchasing organic. Only 9% stated that they will purchase from supermarkets in the near future which is a 21% decrease compared to the pre-Covid-19 level. Additionally, 2% of the respondents stated that they will start to grow they own organic vegetables and fruits as a result of Covid-19 (Table 10).

	Before Covid-19	During Covid-19 restrictions	After Covid-19	CHANGE (Before-after)
Retail chains/ supermarkets	30%	18%	9%	-21%
Local producers' market/ organic market	26%	14%	40%	14%
From several places	20%	15%	3%	-17%
Directly from producers	9%	18%	19%	9%
Special organic food store/ specialty store	8%	5%	13%	5%
Online retailer	4%	25%	12%	8%
Did not buy at all	1%	2%	0%	-1%
Other	1%	1%	1%	1%
Do not know yet	0%	0%	1%	1%
Home grown	0%	1%	2%	2%

Table 10-Changes in purchase channels before and after Covid-19

Main Reasons/Motives for buying organic food product before and after Covid-19 pandemic

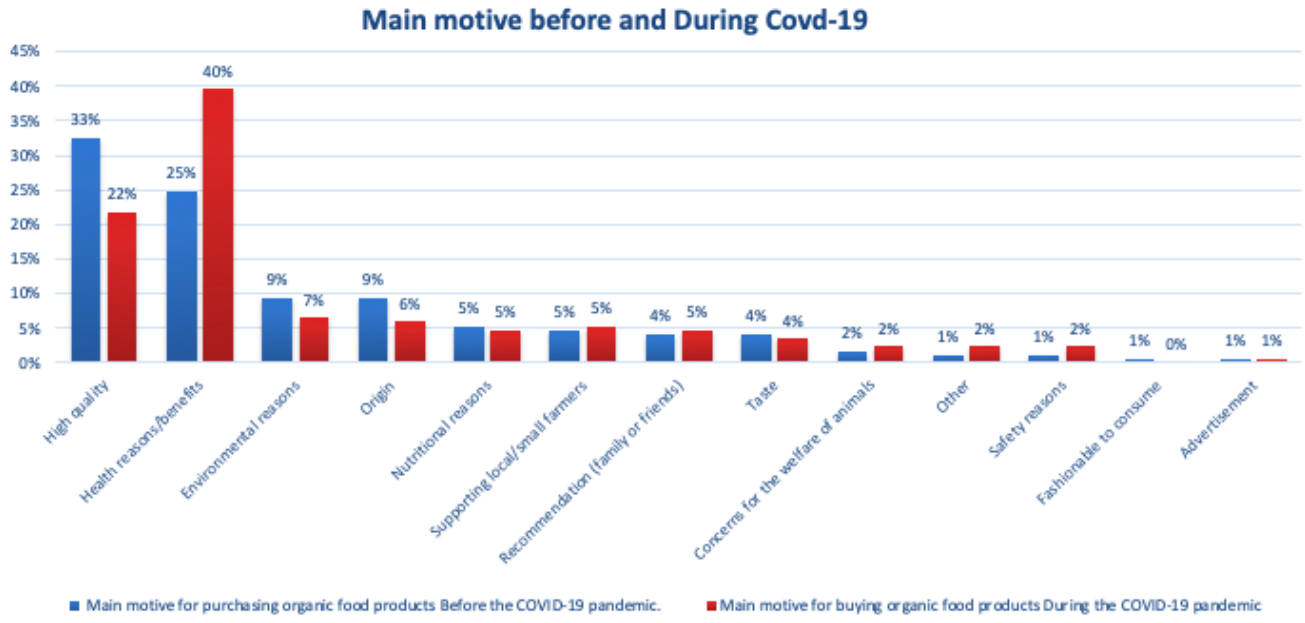


Table 11

The aim was to find out what was the main reason to purchase organic food products before and after the pandemic and if there are any changes in the order of preferences as a result of Covid-19. For this question „What is your main reason for buying organic food?" the researcher only allowed respondents to choose one factor, in order to get an overview on if consumers have to select only one option, which is the main one.

When it comes to the main motivational factors for purchasing organic products before the pandemic, the majority of respondents (33%) indicated "High Quality" as the main reason to

purchase. The “Quality” factor was followed by ”Health reasons or benefits” by 25% of the respondents. The third main motive(s) was environmental reasons (9%) together with the origin (9%). Other motives such as Nutritional reasons(5%), supporting local/small farmers(5%), Recommendations from friends or family (4%),taste (4%) seems to be least important motivational factor among Hungarian consumers. Additionally, respondents who indicated „other” noted their reasons as ”all of the above”, ”non-GMO” and ”Diet”.

However, as it can be seen from table X(marked in red), the order of preference have changed as a result of the pandemic. 40% of the respondents indicated “health benefits” as the main motive to purchase organic food during the Covid-19 pandemic. This is 15% increase from before, when it was on 25%. This was followed by quality (22%) and environmental reasons (7%). For the environmental reason there was a 2% decrease. Furthermore, as it can be seen from table X, the Covid-19 pandemic had no effect on the other factors, as there were no changes or no significant ones among them. The only small change was Recommendation from friends and family has slightly increased (from 4% to 5%), however it was not a significant motive neither before nor after the pandemic.

Main influencing factors

When consumers purchase products, there are several factors which can influence their purchase decision. This can be applied for organic food purchase as well. The table below is intended to show the importance of the factors in question (4-pont Likert scale (1)-Not affected at all-(4) affected in a great extent) in descending order of average (Table X).

Influencing factors before and after Covid -19		Before Covid-19	After Covid-19	CHANGE in average importance
		Total	Total	
Health benefits	Mean	3,5	3,6	0,1
Knowledge of the benefits of organic food products	Mean	3,4	3,4	0,0
Environmental benefits	Mean	3,4	3,4	0,1
Taste	Mean	3,1	3,0	0,0
Animal welfare	Mean	3,0	3,1	0,1
Country of origin	Mean	2,9	3,2	0,3
Assortment/ Availability in the shops	Mean	2,6	2,7	0,0
Price	Mean	2,4	2,6	0,2
Brand label/certification	Mean	2,1	2,2	0,1
Appearance	Mean	2,1	2,1	0,0
Quality	Mean	1,9	1,9	0,0
Fear of contagion	Mean	1,6	1,9	0,4
Advertisement	Mean	1,4	1,4	0,0

Before Covid-19, the identified main influencing factors which had an impact on the decision making of the consumers, were the following in the order of importance: Health Benefits, Knowledge of the Organic products(information), environmental benefits, taste, animal welfare, country of origin, availability of the products and price(Table X). Among the survey respondents, organic label, appearance of the product and advertisements of the products were not significantly impacting the purchase decision.

As a consequence of the pandemic, as it can be seen from the table (Table x) the order has slightly changed, and some factors became more important than before. Health benefits have remained the most important influencing factor for buying organic. Also, knowledge of the benefits and environmental benefits remained the same position as before. On the other hand, other influencing factors, for instance, the Fear of contagion, Country of origin, and Price have increased in terms of importance since the pandemic (Table X).

Main barriers for buying organic products in the future

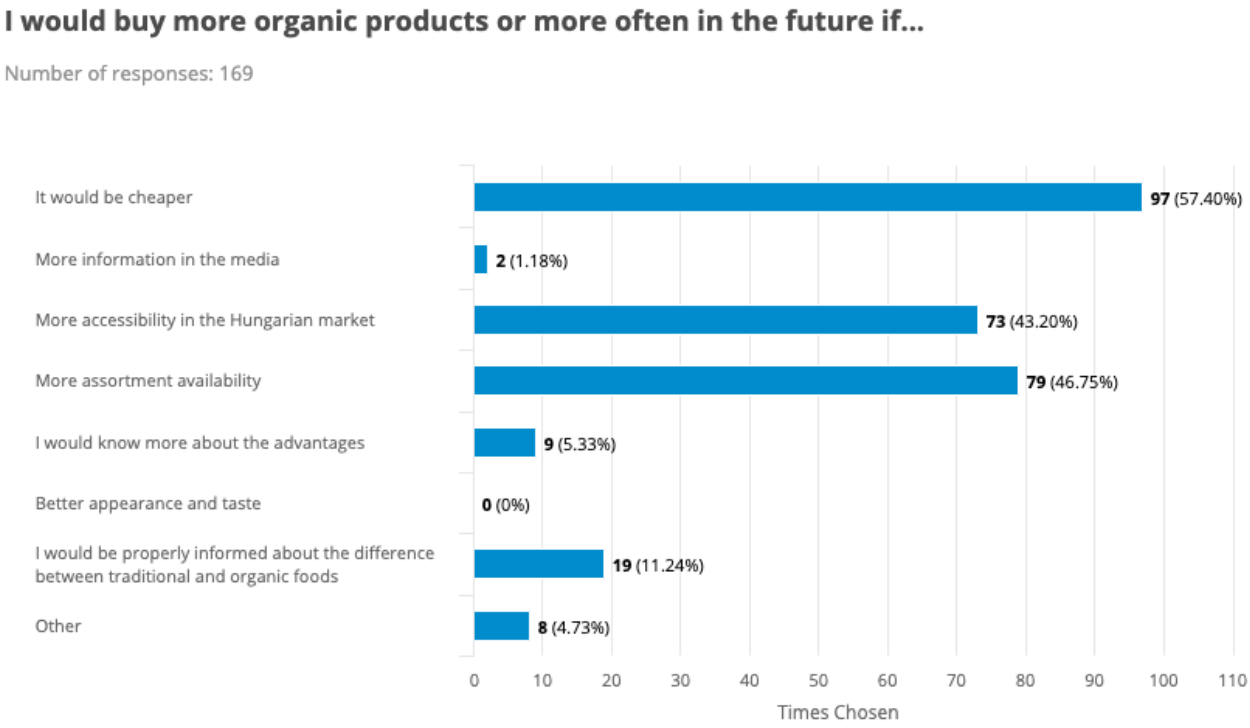


Table X barriers towards purchase intention

In order to find out what could be the possible barriers towards buying intention(e.g.perceived behavioural control), respondents were asked to select or indicate reasons

which were limiting the from purchase previously, with the following statement: *"I would buy more organic products or more often in the future if*".

As it can be seen from table X, respondents were choosing 97 times (57%) the option that they would buy more in the future if the price for organic products would be cheaper. This indicates that the price is the main barrier for purchasing organic products among the respondents. The second barrier has been chosen 79 times (46,5%) indicating more assortment availability and 73 times (43%) more accessibility on the Hungarian market, indicating that in some cases the products they need are not available. Furthermore, respondents were choosing 19 times (11%) and 9 times (5 %) that they would purchase more organic products if they would know more about the advantages and the differences between traditional and organic foods. This indicates the lack of information about the products together with Insufficient consumer knowledge.

The existence of additional barriers was raised by 8 times of the study participants. Reasons indicated as "Other" answers mostly related to not believing in the concept of organics or scepticism toward the system of certification and labelling (lack of trust) and satisfaction with the consumption of conventional food (a substitution effect).

Additionally, some respondents have indicated that as a result of the pandemic and the more time at home, they started to home-grown their own fruits and vegetables (cultivation of organic food).

Changes in expenditure

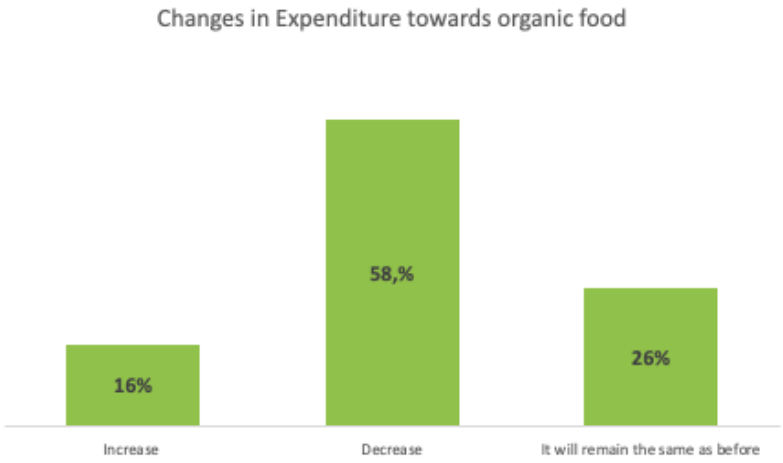


TABLE X

When it comes to spending on organic food in the future, the mass majority of the respondents (58%) stated that they will decrease their spending as a result of Covid-19 on organic food products. 26% of the respondents stated that it will remains the same as before, which could lead to the assumption that the virus had no direct effect on their expenditures. On the other hand, 16% stated that it will increase as a result of the virus.

Section 3- Analysing the relevant TPB constructs

As it has been described in the theory section, the TPB enables to predict actual behaviour by looking at the relation among the constructs and in what way they will influence buying intention (Ajzen, 1991). Therefore, in this section of the project, some relevant constructs in relation to the TPB will be analysed.

Attitude towards purchase intention

In relation to the constructs of the Theory of Planned Behaviour, the researcher was interested in investigating the correlation between attitude and purchase intention in the future.

		Did the time spent in quarantine affect your attitude towards consumption of organic products?		
		I do not know	No, it has not affected	Yes, I am more positive towards organic food products
		Column N %	Column N %	Column N %
Has the pandemic influenced your purchase frequency of organic food products?"	I do not know	22,2%	7,0%	1,7%
	No, it will remain the same as before	66,7%	77,0%	6,7%
	Yes, I will buy less often	0,0%	1,0%	0,0%
	Yes, I will buy more in the future	11,1%	15,0%	91,7%

Table x-Attitude towards purchase intention

As it can be seen from table X, there is a significant correlation between the attitude and behavioural intention: those respondents who say that they are more positive towards organic food products as a result of Covid-19 are significantly more likely to say that they will buy more organic food in the future (97,1%), whereas from the respondents who indicated that Covid-19 had no effect on their attitude only 11% and 15% indicates that they will buy more organic food in the future.

Statistically this is also approved, as based on the calculations, Correlation is strongly positive between attitude and behavioural intention. Correlation=0.739 and it's significant on 99% confidence level (Appendix 5, Sheet 4th).

Correlation between Purchase frequency before Covid-19 and future buying intention

The researcher was interested in to investigate if there is any correlation on the purchase frequency and buying intention as a result of the Covid-19 pandemic.

Purchase frequency versus Future buying intentinon			How often did you purchase organic food products before the pandemic?							
			1-2 times in a week	3-4 times in a week	2-3 times in a month	MORE THAN ONCE A MONTH	Once in a month	I buy it very rarely	Never	ONCE A MONTH OR LESS OFTEN
	Count		65	36	22	123	24	2	20	46
Has the pandemic influenced your purchase frequency of organic food	I do not know	Column N %	6,2%	0,0%	13,6%	5,7%	4,2%	50,0%	5,0%	6,5%
	No, it will remain the same as before	Column N %	66,2%	38,9%	68,2%	58,5%	33,3%	0,0%	35,0%	32,6%
	Yes, I will buy less often	Column N %	1,5%	0,0%	0,0%	,8%	0,0%	0,0%	0,0%	0,0%
	Yes, I will buy more in the future	Column N %	26,2%	61,1%	18,2%	35,0%	62,5%	50,0%	60,0%	60,9%

As it can be seen from Table X, those who purchased organic products once a month or less often before the pandemic (occasional buyers), are more likely to increase their purchase frequency (60.9% say they will increase) compared to those who already purchased organic products more than once a month (35% of them said they will buy more in the future). This can indicate that due to Covid-19, the ones who were consuming less often before, will buy more organic products in the future.

Statistically this is also approved. The pre-Covid-19 shopping frequency for organic products shows a weak negative correlation with the change in buying frequency caused by the pandemic. The correlation is significant (but weak). Correlation=-0,237 and it is significant on a 98% Confidence level (Appendix 5,Sheet 10th).

Health concerns and buying intention

Since it has been mentioned by previous studies that people become more health conscious as a result of the coronavirus(Naja F.,2020), the researcher was interested into investigating the attitude towards health of the consumers (Table 12) and the relation among health consciousness and future buying intention of organic food products (Table 13).

			Before Covid-19 I took care of my health with a healthy diet	In the future I will eat more nutritious food/ I will take care of what I eat	CHANGE
			Total	Total	
	Count		169	169	
	Mean		4,2	4,7	0,4
Before Covid-19 I took care of my health with a healthy diet	Strongly agree	Column N %	54%	77%	23%
	Agree	Column N %	28%	18%	-10%
	Neutral	Column N %	9%	4%	-5%
	Disagree	Column N %	7%	1%	-7%
	Strongly disagree	Column N %	2%	1%	-1%

Table 12

As it can be seen from table x, before Covid-19 already 82% of the respondents agreed or strongly agreed that they took care of their diet by eating healthy. However, respondents seem to be more health -concerned after the pandemic as 95% agreed that in the future they will pay more attention on what they eat (Table X).

		Has the pandemic influenced your purchase frequency of organic food products?
Before Covid-19 I took care of my health with a healthy diet	Pearson Correlation	-.392**
	Sig. (2-tailed)	,000
	N	169
In the future I will eat more nutritious food/ I will take care of what I eat	Pearson Correlation	,120
	Sig. (2-tailed)	,121
	N	169

Table 13

When it comes to investigating health consciousness of consumers and the effect of Covid-19 on it, it can be seen that there is a significant negative correlation between the pre-Covid-19 level of taking care of health and the influence of Covid-19 on the future buying intention of organic food (Correlation= -0.392, confidence level: >99% because sig. < 0.001). Meaning that as an effect of the Covid-19, the “unhealthy” respondents are becoming more conscious towards their health as a result of the pandemic and the ones who were already conscious towards their health the pandemic had no effect on it, which is logical.

		Before Covid-19 I took care of my health with a healthy diet				
		Strongly disagree	Disagree	Neutral	Agree	Strongly agree
		Column N %	Column N %	Column N %	Column N %	Column N %
Did the time spent in quarantine affect your attitude towards consumption of organic products?	I do not know	25,0%	0,0%	6,7%	6,4%	4,4%
	No, it has not affected	25,0%	8,3%	26,7%	51,1%	76,9%
	Yes, I am more positive towards organic food products	50,0%	91,7%	66,7%	42,6%	18,7%

Table 14

This is also reflected in the above data table (Table 14): those who strongly agree that they took care of their healthy diet, 76.9% said Covid-19 has not affected their attitude towards organic products. However, those who least agree, tend to say more that Covid-19 has made them more positive towards organic products.

On the other hand, there is a positive, but not statistically significant relationship between future plans to eat more healthily and future buying intention of organic products. (Sig. = 0.121 > 0.05 therefore not significant correlation) (Table XX-appendix).

Analysing the open-ended question

As a last question of the online-survey (Question 17th), the researcher asked from the respondents to write down their own perspectives and believes in regards how does Covid-19 affected their organic food purchase with the following question: “Could you please explain in your own words how does the Covid-19 pandemic affected your organic purchase?” The aim of this question was to get more understanding in relation to the problem that the researcher has not thought of.

From the 169 respondents 103 were giving answers for this question. However, some answers were not relevant to the questions therefore some respondents have been eliminated. In total 86 answers were coded and analysed (Appendix-7-Results Table). Based on their answers the following can be said:

Overall, 56% of the respondents stated that Covid-19 had a positive effect on their organic food consumption, 26% stated that Covid-19 had negative effect on their organic food consumption practices .22% of the respondents stated that the coronavirus had no effect on their organic food consumption. Some respondents were indicating both negative and positive effects (for this reason the percentage distribution is higher than 100%).

When it comes to the positive effect, is 17% of the respondents indicated that as a result of Covid-19 they became more concerned towards their health and what the eat. Majority of the respondents were indicating eating more healthy ingredients.12% indicated increased organic food consumption.

When it comes to social influences, 8% of the respondents mentioned family and friends in some way as an influencing factor. A citation from a respondent can be found below, which sums up quite well the changes among consumers as a result of Covid-19:

„I wanted to take as much vitamins as possible. I have noticed that I started to order more vegetables and fruits for my close family as before. For example, I was shopping for my mother and I became extra cautious to always buy for her fresh fruits and vegetables. I think before the virus I was not paying enough attention to that. I also started to shop the necessary food online and I have never done it before."(Respondent 47-Appendix 6)

In relation to ordering online, 15% of the respondents indicated ordering food online during the Covid-19 restrictions, among the answers many were indicating that before the Covid-19 pandemic the online consumption was an option or alternative, however during the pandemic the online consumption of food and doing grocery became a necessity.

Interestingly, 12% of the respondents mentioned that as a positive effect of Covid-19, since they had more time in their homes, they started their own organic cultivation.

When it comes to the influencing factors, 10% of the respondents indicated that the country of origin had a high importance during their consumption and they started to consume more domestically produced products.

The negative effects on organic consumption among the respondents were the following: 19% stated that the most negative effect of the pandemic was the lack of availability of the products or the difficulties of accessing them as a result of the restrictions. 6% of the respondents indicated that as a consequence of Covid-19 they temporarily changed their habits and behaviour negatively. These changes in temporarily behaviour was due to the restrictions the lack of availability of the products, less money to spend. However, respondents were indicating that once the virus is over they are planning to return to their previous habits. These negative changes are also indicated by 6 % of the respondents who stated that they were paying less attention on if the product is organic or not as they just wanted to spend less time in the shops. 5% of the respondents were indicating that as a result

of the virus they are not able to afford the organic food products due to their high prices and at the current moment they have other priorities (Appendix 7).

Discussion

In this section of the project the discussion of findings from both the secondary research and the survey on organic food consumption among Hungarian consumers during the Covid-19 pandemic will be presented. The findings will be compared with the theories and past researches.

1: Demographic characteristics of the respondents

Based on the results of the survey, the majority of the respondents were from the age group of 26-35 (33%) and 36-46(24%), in total 57% of the respondents were from the middle age group. When it comes to the gender distribution, more than ¾ of the respondents were woman. The respondents age and gender distribution is in accordance with previous researches ,as it has been stated middle-aged woman in Hungary are the main consumers for organic food products (Dr. Kádár A.,2017 and Fogarassy et al.,2019:4).When it comes to the occupation the majority of the respondents is working full-time, meaning they have stable financial status during these unexpected times. However, 17% of the respondents lost their job as an effect of Covid-19. This high proportion of unemployed among the respondents indicates that there are already some negative changes in the labour market as a consequence of Covid-19.Furthermore it can affect in a great extent the consumers spending in relation to organic products. Additionally, based on the findings from the survey it can be concluded that all of the respondents are concerned towards the environment in some ways.

2: Consumer Behaviour

When analysing consumer behaviour, it is important to look at how consumers behave when environmental factors-in this case the Covid-19 pandemic-influences their purchase decision. For this reason, in this section the changes in consumer behaviour as a result of Covid-19 will be discussed.

When it comes to the investigated behavior of the respondents the researcher has found many changes. Additionally, the responses from the open-questioned interview also confirmed that Covid-19 both caused positive as well as negative changes in their behavior. Overall, 56% of the respondents stated that Covid-19 had a positive effect on their organic food consumption, 26% stated that Covid-19 had negative effect on their organic food consumption practices .22% of the respondents stated that the coronavirus had no effect on their organic food consumption.However, based on the results, Covid-19 has more positive effect on organic food consumption as negative ones (Appendix 7-Results Table).

Purchase frequency

It has been identified and statistically proven, that the purchase frequency will change a result of Covid-19. Since, 42% of the respondents stated that the pandemic has influenced their purchase frequency and they will buy more organic food in the future. All in all there is a positive correlation between purchase frequency and purchase intentions as a result of the pandemic .This means that the less frequently the person bought organic products before the pandemic, the more likely they are to change their behaviour in the positive direction (i.e. buy more) in the future(Appendix 5,Sheet 10th).

Comparison of Purchase Channel preferences

As a result of Covid-19 there is a significant change for the preferred purchase channels among consumers. As previously the most preferred channel were the supermarkets and hypermarkets (30%) in the future only 9% of the respondents would purchase from there. This is a significant decrease. Since consumers will visit the retail places less often than before it can have a considerable effect on the supermarkets and small businesses even in the short run. Based on the results, for the future, the most preferred purchase channel will be local producers' market(40%),followed by direct purchase from the producers(19%) and special organic food stores (13%).Furthermore, in accordance with the previous studies (Markin S., 2020), online sales of organic products has also increased as a result of the Covid-19 pandemic from 4% to 25%, however in the future it will slightly decrease. But still, comparing it to the level before the virus, there is an 8 % increase when it comes to purchasing online.

Comparison of consumer motivations and barriers

The research showed that the main motivational factors among Hungarians were the following before the restrictions: High quality (33%), Health reasons (25%), environmental

reasons (9%) and origin (9%). However, during the pandemic “Health reasons” as a main motivational factor were selected by 40% of the respondents. Based on that it can be seen that when there is a health scare, health reasons are becoming more important, whereas quality, environmental reasons and origin are becoming less important motivation for buying organic food since the pandemic. Therefore Covid-19 had an impact as well on consumers motivation. The identified motivational factors are in accordance with other studies findings (Hughner et al., 2007; Paul and Rana, 2012;Gracia A,2007; Magnusson, et al., 2003).

Changes in Influencing factors:

According to the survey results, the most important influencing factors on purchasing organic products before the pandemic in order were: Health Benefits, Knowledge of the Organic products(information), environmental benefits, taste, animal welfare, country of origin, availability of the products and price. During the pandemic, the most important influencing factors remained at the same position in terms of importance, on the other hand, other influencing factors, for instance, the Fear of contagion, Country of origin, and Price have increased in terms of importance since the pandemic.

All in all, there were no significant changes in regard to the influencing factors among Hungarian consumers, however during the pandemic some factors became more important than others. The find influencing factors are in accordance with previous studies on the Hungarian market.

Main barriers / Perceived Behavioural Control

By summing up the factors associated with the main barriers for purchasing organic food products, it can be deduced that the main obstacles among Hungarian Consumers in order are: price-is the main barrier, lack of availability, assortment availability, lack of information and insufficient consumer knowledge. Other barriers were lack of trust, or satisfaction with conventional food.

Spending on Organic food products

Overall, 56% of the consumers will spend less on organic products in the future as a result of Covid-19, many of the respondents idicated that they are only buying what they need given the current landscape.This is in accordance with previous studies on the effect of Covid-19 on

consumption, where they were stating that due to the financial recession consumers might choose to decrease their spending on organic products.

However, the amount of the extra spending depends on several socio-economic and psychologic factors: income status, level of fear, size and type of households, etc. These conditions must be researched later more detailed.

Other factors:

Among additional findings are that many of the respondents were indicating how important it became for them to look at the country of origin and from where is the product originated. This could be a possibility for the Hungarian organic sector as it has been mentioned an issue is that most of the products are imported. Probably from now on consumers will demand more domestically produced organic food products.

Last but not least, the researcher will look at how the findings are in relation with the Theory of Planned Behaviour:

Attitude

As it has been highlighted in the literature review section of this project, there is an increased purchase of organic foods as a result of the pandemic, as more people trying to fight against the virus by adopting healthier diets. It has been stated, that the attitude towards organic food products are generally positive (Zanoli et al., 2002; Radman,2005; Magnusson, et al., 2003) ,therefore the researcher wanted to investigate if the Coivd-19 had any effect on the attitude of the consumers.

Based on the survey result, 59% of the respondents stated that Covid-19 had no effect on their attitudes towards organic food products. On the other hand, 36% of the respondents stated that the Covid-19 pandemic had an effect on their purchase intention, and they are more positive towards organic food products. Additionally, there is a significant correlation between the attitude and behavioural intention: those respondents who say that they are more positive towards organic food products as a result of Covid-19 are significantly more likely to say that they will buy more organic food in the future (Appendix 5, Sheet 4th).Based on the above, it can be concluded that the attitude towards organic products is positively changing as a result of Covid-19.

Subjective norms

It has been mentioned that the researcher will not investigate the role of subjective norm on purchase intention due to the fact that it was not the main research obejctive, however based on the survey results it can be said that social influences has a minimal impact on influencing consumer behaviour when it comes to purchase organic food during Covid-19, as this factor has increased (from 4% to 5%), however it was not a significant motive neither before or after the pandemic.

Perceived Behavioural Control

As PBC is dependent on perceived limitations and ability that influence the buying intention of consumers, in this manner, price consciousness and availability are considered major barriers in organic food consumption among Hungarian consumer during Covid-19. Customers with the intention to consume these products may be ready to pay an exceptional price (due to increased health concerns). However, they may be unable to afford such as a recession or financial problems as an effect of the Covid-19 pandemic. Or even if they could afford it, it might not be available at the nearest shop. It is important to mention that the researcher has not measured the association between PBC and buying intention in this project as it was not the main objective of this research.

"Health Consciousness"

Respondents seem to be more health concerned after the pandemic,as 95% agreed that in the future they will pay more attention on what they eat. This is also approved statistically. (Correlation= -0.392, confidence level: >99% because sig. < 0.001). This means that those who have previously did not take care of eating healthy are more likely to change their behaviour (i.e. buy more organic) than those who already took care of their health before the pandemic

To sum up, for all these above mentioned reasons, this research has confirmed the mentioned trends (e.g increased health awareness, Increased purchase frequency, increase in online shopping, less spending of the consumers) in the literature review section in relation to organic food consumption during the Covid-19 pandemic.

In relation to the theory of Consumer behavior, and the mentioned influencing factors, the researcher finds a connection on the personal factors (motivation, attitude, lifestyle) income, as they have a significant effect on consumers purchase intention especially when it comes

to Covid-19. However, theories are lacking the construct of a pandemic or health scare when it comes to consumer behavior, since the researcher could not find any appropriate model or theory which could be applied in this exceptional situation while investigating consumer behaviour.

Additionally, even thought that two constructs from the TPB were not measured, the results based on the analysis and with adding health as an additional component it was possible to make some investigations. Personal attitudes, and health consciousness were found to be significant predictors of organic purchase intention among Hungarian consumers for the future.Therefore the study confirms the appropriateness of the TPB model and verify that the extended TPB model(health consciousness) has good explanatory power in predicting consumers' intention to consume organic food during a pandemic.

Conclusion

How does the Covid-19 pandemic changing the organic food purchasing behaviour and attitudes of consumers towards organic food products in Hungary?

In order to give a possible answer to this research question, there were many steps what the researcher had to follow. First of all, as Covid-19 is a new phenomena in humanity, there are no available researches on the topic. This required investigating current studies and discussion about the effect of Covid-19 on consumption around the world. This was followed by a research about the Hungarian organic market and its tendencies. It can be concluded that till recent times the organic food consumption is at a low level in Hungary, but the demand for organic food is growing steadily. However based on this thesis findings , there is a potential opportunity for the Hungarian organic market to further grow. Some tendencies of Hungarian consumer has also been identified such as the high price sensitivity due to the average low salaries, which comes as a disadvantage when studying organic food consumer behaviour, as organic products have higher prices.

However based on the findings from the survey, it can be concluded that Covid-19 is changing the Hungarian organic consumer behaviour in a great extent. Increase in purchase frequency has been found as a result of Covid-19, meaning that people who were buying less often before the pandemic are intending to change that and buy more in the future.

Another interesting finding was to see how much the distribution channels for organic products have changed as a result of Covid-19. It was found on the basis of our survey that in the future they prefer the organic markets which were followed by special organic stores and retail chains. There is also a positive attitude towards organic products change have been identified due to their perceived health benefits and qualities. The identified motivational factors are in accordance with previous studies. Before the Covid-19 pandemic it was the perceived quality followed by health benefits and environmental reasons. However as a result of Covid-19, 40% of the respondents indicated health benefits as the main reason to purchase. Identified barriers during the Covid-19 mainly because of the restrictions and measurements is the high price of the products, lack of availability and lack of knowledge about the benefits of the products.

All the main findings can be found in the discussion section of this project, however the researcher strongly believes that the results of the study provide a comprehensive, valuable and important information about Hungarian consumers buying behaviour under the influence of Covid-19 Pandemic.

Bibliography

Aertsens, J., Verbeke, W., Mondelaers, K. and Van Huylenbroeck, G. (2009) Personal determinants of organic food consumption: a Review, *British Food Journal*, 111(10), 1140–1167.

AgenceBio. (2019) *Organic farming and market in the European union.* International Publication by Agence Bio. Retrieve from https://www.agencebio.org.

Ajzen, I. (1991) The theory of planned behavior, *Organizational Behavior and Human Decision Processes*, 50(2), 179–211.

Ajzen, I. (2011) 'The theory of planned behaviour: Reactions and reflections', *Psychology & Health*, 26(9) Routledge, pp. 1113–1127.

Askew Katy, (2020) *Organic food's coronavirus boost: 'Health crises have a long-term impact on consumer demand'*. from https://www.foodnavigator.com(31 June 2020)

Balázs, B., BerténYi, G., Králl, A., Pintér, L. and Strenchock, L. (2015) *Pathways Project Exploring Transition Pathways to Sustainable, Low Carbon Societies*. Available at: https://www.pathways-project.nl

Bell, R. (2013) *Public markets differ from farmers markets*. available at: http://msue.anr.msu.edu/news/public_markets_differ_from_farmers_markets

Bhat Adi, (2020) *Exploratory Research: Definition, Methods, Types and Examples*. Available at: https://www.questionpro.com/blog/exploratory-research/

BioKontroll. (2019) *A hazai ökológiai (bio) gazdálkodás helyzete és középtávú versenyképessége* https://www.biokontroll.hu/a-hazai-okologiai-bio-gazdalkodas-helyzete-es-kozeptavu-versenykepessege-1/

Bluedorn, J. and Gopinath, G. (2020) *An Early View of the Economic Impact of the Pandemic in 5 Charts*., *TextileFuture*. Available at: https://textile-future.com/archives/44502 (1 May 2020)

Bryman, A. (2012) *Social Research Methods*. 4th edition. New York: Oxford University Press.

Bryman, and Bell. (2011) *Business Research Methods*. New York: Oxford University Press.

Budapest Business Journal. (2020) *Gov't introduces movement restrictions* Available at: https://bbj.hu/coronavirus/govt%20introduces%20curfew%20restrictions_180499

Business Jargons: Factors Influencing Consumer Behavior: Available at: https://businessjargons.com/factors-influencing-consumer-behavior.html

Byington L, (2020) *Organic sales are up during the pandemic, but long-term challenges loom.* Available at: https://www.fooddive.com/news/organic-sales-are-up-during-the-pandemic-but-long-term-challenges-loom/576317/

Chen, M.-F. (2007) 'Consumer attitudes and purchase intentions in relation to organic foods in Taiwan: Moderating effects of food-related personality traits', *Food Quality and Preference*, 18(7), pp. 1008–1021.

Clootrack (2020) *Major Factors Influencing Consumer Behaviour*. Available at: https://clootrack.com/knowledge_base/major-factors-influencing-consumer-behavior/

Creswell, J.W. (2014) *Research Design: Qualitative, Quantitative and Mixed Methods Approaches* (4th ed.) London: SAGE Publications Ltd. Available at: http://fe.unj.ac.id/wp-content/uploads/2019/08/Research-Design_Qualitative-Quantitative-and-Mixed-Methods-Approaches.pdf

Cseresnyés, P. (2020) *Coronavirus' Brutal Economic Impact in Hungary Already Felt* Available at: https://hungarytoday.hu/coronavirus-brutal-economic-impact-in-hungary-already-felt/

Daphane Ewing-Chow (2020) *Five Ways That Coronavirus Will Change The Way We Eat*. Available at: https://www.forbes.com/sites/daphneewingchow/2020/03/31/five-ways-that-coronavirus-will-change-the-way-we-eat/#409f4bf41a2b (10 April 2020)

Daphne E.,C. (2020) *Five Ways That Coronavirus Will Change The Way We Eat*, Forbes. Available at:https://www.forbes.com/sites/daphneewingchow/2020/03/31/five-ways-that-coronavirus-will-change-the-way-we-eat/#2af4496b1a2b

Deloitte. (2020) *How COVID-19 is accelerating the food transformation* Available at: https://www2.deloitte.com/nl/nl/pages/consumer/articles/food-covid-19-accelerating-food-transformation.html

Drexler, D. and Dezseny, Z. (2013) 'Organic Agriculture in Hungary–Past, Present, Future', in *The World of Organic Agriculture-Statistics and Emerging Trends*. Research Institute of Organic Agriculture (FiBL) p239–241.

DUE, (University of Dunaújváros) (2020) *Partial curfew for 2 weeks' time in Hungary* Available at: http://www.uniduna.hu/en/news_archive/1506-partial-curfew-for-2-weeks%E2%80%99-time-in-hungary

Ernst & Young (2020) *Four consumer behavior trends emerge during the COVID-19 pandemic, the first EY Future Consumer Index finds*. Available at: https://www.prnewswire.com/news-releases/four-consumer-behavior-trends-emerge-during-the-covid-19-pandemic-the-first-ey-future-consumer-index-finds-301045840.html (30 April 2020)

European Commission (2020) *Products covered by EU organics rules*., Available at: https://ec.europa.eu/info/food-farming-fisheries/farming/organic-farming/organic-production-and-products_en (10 June 2020)

Éves jelentések (2020) *Biokontroll Hungária Nonprofit Kft.* Available at: https://www.biokontroll.hu/ellenorzes-es-tanusitas/dokumentumtar/eves-jelentesek/ (10 July 2020)

FAO: (2020) Q&A: COVID-19 pandemic – impact on food and agriculture Availabe at: http://www.fao.org/2019-ncov/q-and-a/impact-on-food-and-agriculture/en/

FiBL. (2019) *European organic market grew to more than 37 billion euros in 2017*. Available at: https://www.fibl.org/en/info-centre/news/bio-in-europa-waechst-weiter-biomarkt-bei-ueber-37-milliarden-euro.html (20 March 2020)

Food and Agriculture Organization (2007) *Organically produced foods* (3rd edition) Food and Agriculture Organization of the United Nations, Rome. Available at: http://www.fao.org/3/a1385e/a1385e00.pdf

Food and Agriculture Organization (2012) *Organic agriculture and the law*, Food and Agriculture Organization Of the United Nations, Rome. Available at: http://www.fao.org/3/a-i2718e.pdf

Food and Agriculture Organization (2020) *Maintaining a healthy diet during the COVID-19 pandemic*. FAO. Available at: 10.4060/ca8380en (05 July 2020)

Fruhwald, F. (2012) A biogazdálkodás és a biotermékek helye a médiában és a kereskedelemben. (Organic farming and organic products in the media and trade) Paper for the Ökológiai Mezőgazdasági Kutatóintézet (OMKi) (Research Institute of Organic Agriculture in Hungary) Conference: The Domestic Situation of Organic Farming-Trends and Breaking Points. Budapest, Hungary February 2012. Available at: https://orgprints.org/22769/1/konferencia_kiadvany.pdf

Gaál B. (2019) *Hungary the most obese country in Europe* Available at: https://bbj.hu/news/hungary-the-most-obese-country-in-europe_165787

Galanakis, C.M. (2020) 'The Food Systems in the Era of the Coronavirus (COVID-19) Pandemic Crisis', *Foods*, 9(4), p. 523.

Golijan, J. and Dimitrijević, B. (2018) 'Global organic food market', *Acta Agriculturae Serbica*, 23(46), pp. 125–140.

Gracia Royo, A. and de-Magistris, T. (2007) 'Organic food product purchase behaviour: a pilot study for urban consumers in the South of Italy', *Spanish Journal of Agricultural Research*, 5(4) INIA, pp. 439–451.

Gyarmati Gábor (2018) Habits of university students about the consumption of organic products available at: http://real.mtak.hu/88290/1/EPA03448_multidiszciplinaris_2018_3_057-072.pdf

Hamid, S., Mir, M.Y. and Rohela, G.K. (2020) 'Novel coronavirus disease (COVID-19): a pandemic (epidemiology, pathogenesis and potential therapeutics)', *New Microbes and New Infections*, 35, p. 100679.

Hannah Ritchie (2020) Environmental impacts of food production. *Published online at OurWorldInData.org.* Retrieved from: 'https://ourworldindata.org/environmental-impacts-of-food' [Online Resource]

Hannah Ritchie and Roser, M. (2020) 'Environmental impacts of food production', *Our World in Data* Available at: https://ourworldindata.org/environmental-impacts-of-food (01 Feb 2020)

Hansen, B., Alrøe, H.F., Kristensen, E.S. and Wier, M. (2002) 'Assessment of food safety in organic farming', *Danish Research Centre for Organic Farming*, Danish Research Centre for Organic Farming. Available at: https://orgprints.org/206/1/Hansen_organic_food_safety.pdf

Haug, A., Brand-Miller, J.C., Christophersen, O.A., McArthur, J., Fayet, F. and Truswell, S. (2007) 'A"food lifeboat": food and nutrition considerations in the event of a pandemic or other catastrophe', *Medical journal of Australia,* 187(11/12) p. 674

Hawkins, D., Mothersbaugh, D., Best, R. (2007) *Consumer Behavior: Building Marketing Strategy*, 10th edition, McGraw-Hill/Irwin

Hofer,Mária (2009) *Bioélelmiszerek fogyasztásának tendenciája Magyarországon, doktori értekezés, Győr*, Transleted from Hungarian to English by Dóra Gerő available at: https://rgdi.sze.hu/files/Ertekezesek,%20tezisek/Hofer%20Mara%20-%20Doktori%20ertekezes.pdf

Honkanen, P., Verplanken, B. and Olsen, S.O. (2006) 'Ethical values and motives driving organic food choice', *Journal of Consumer Behaviour*, 5(5), pp. 420–430.

Hortidaily. (2020) Corona update: Organic food stuffs get coronavirus boost. Available at: https://www.hortidaily.com/article/9211417/corona-update-organic-food-stuffs-get-coronavirus-boost/

Hughner, R., McDonagh, P., Prothero, A., II, C. and Stanton, J. (2007) 'Who Are Organic Food Consumers? A Compilation and Review of Why People Purchase Organic Food', *Journal of Consumer Behaviour*, 6, pp. 94–110.

Hyde, K.F. (2000) 'Recognising deductive processes in qualitative research', *Qualitative Market Research: An International Journal*, 3(2), pp. 82–90.

IMF (International Monetary Found) (2020)available at::https://blogs.imf.org/2020/04/06/an-early-view-of-the-economic-impact-of-the-pandemic-in-5-charts/

Iqbal, M. (2015) 'Consumer Behaviour of Organic Food: A Developing Country Perspective', *International Journal of Marketing and Business Communication*, 4(4) Available at: 10.21863/ijmbc/2015.4.4.024 (31 January 2020)

Jansson-Boyd C. V. (2010) *Consumer Psychology*, Open University Press.Available at: http://www.umpalangkaraya.ac.id/dosen/dwisariusop/wp-content/uploads/2016/11/Consumer- Psychology.pdf

Jarvie, I. C., & Zamora-Bonilla, J. (Eds.), (2011) *The SAGE Handbook of the Philosophy of Social Sciences.* London: SAGE Publications Limited.

Jisana, T. K. (2014) Consumer Behaviour Model: An Overview. Sai Om Journal of Commerence and Management,1(5), pp. 34-43.

Johansson R. (2020) Will COVID-19 Threaten Availability and Affordability of our Food? Available at: https://www.usda.gov/media/blog/2020/04/16/will-covid-19-threaten-availability-and-affordability-our-food

Kádár A, (2017) Hogyan alakul a biogasdálkodás hazánkban és az EU-ban? Available at:https://www.agroinform.hu/szantofold/hogyan-alakul-a-biogazdalkodas-hazankban-es-az-eu-ban-32356-001

Kinga Nagy-Pércsi and Fogarassy, C. (2019) 'Important Influencing and Decision Factors in Organic Food Purchasing in Hungary', *Sustainability*, 11(21), p. 6075.

Knutson J. (2020) What's ahead for organic food? Available at: https://www.agweek.com/business/agriculture/5058697-Whats-ahead-for-organic-food

Krishnaswamy, O.R. and Satyaprasad, B.G. (2010) *Business research methods*. Mumbai. Himalaya Publication House. Available at: http://site.ebrary.com/id/10415560 (3 July 2020)

Kristýna Olivová (2011) *Intention to Buy Organic Food among Consumers in the Czech Republic*. University of Agder. Master thesis. Avaialable at: https://core.ac.uk/download/pdf/52057939.pdf

Kumar, M. (2018) *The Relationship Between Beliefs, Values, Attitudes and Behaviours,* Owlcation. Available at: https://owlcation.com/social-sciences/Teaching-and-Assessing-Attitudes (23 July 2020)

Lackana Leelayouthayotin (2004) *Factors influencing online purchase intention: The case of health food consumers in Thailand*. University of Southern Queensland.

Lea, E. and Worsley, T. (2005) 'Australians' organic food beliefs, demographics and values', *British Food Journal*, 107(11), pp. 855–869.

Lehota, J. (2012) Biotermékek marketingje, kutatási eredmények és kitörési pontok. (Marketing of organic products, research results and breaking points) Paper for the Ökológiai Mezőgazdasági Kutatóintézet (OMKi) (Research Institute of Organic Agriculture in Hungary) Conference: The Domestic Situation of Organic Farming-Trends and Breaking Points. Budapest, Hungary.

Lewin J. (2020) *What does organic mean*? Good food. Available at: https://www.bbcgoodfood.com/howto/guide/organic

Long, N. N., and Khoi, B. H. (2020) An Empirical Study about the Intention to Hoard Food during COVID-19 Pandemic. *Eurasia Journal of Mathematics, Science and Technology Education*, 16(7),1857. https://doi.org/10.29333/ejmste/8207

Lucas, M.R.V., Röhrich, K., Marreiros, C., Fragoso, R., Kabbert, R., Clara, A.M., Martins, I. and Böhm, S. (2008) *Quality, Safety And Consumer Behaviour Towards Organic*

Food In Germany And Portugal. University of Evora, CEFAGE-UE (Portugal) Available at: https://ideas.repec.org/p/cfe/wpcefa/2008_05.html (25 January 2020)

Magnusson, M.K., Arvola, A., Hursti, U.-K.K., Åberg, L. and Sjödén, P.-O. (2003) 'Choice of organic foods is related to perceived consequences for human health and to environmentally friendly behaviour', *Appetite*, 40(2), pp. 109–117.

Malhotra, N. (2010) *Review of marketing research*. Armonk, N.Y.: M.E. Sharpe.

Manson Jim. (2020) Organic Foods 'Getting Coronavirus Boost' availabe at: https://www.naturalproductsglobal.com/breaking-news/organic-foods-getting-coronavirus-boost/

Markin, S. (2020) *WMU researchers study food consumption behavior during COVID-19 pandemic, Western Michigan University* Available at: https://wmich.edu/news/2020/03/58581 (25 March 2020)

Mercaris (2020) *U.S. Organic Commodity Market & Risks Outlook: Mercaris Special Report: 2020 COVID-19.* Available at: https://mercaris.com/landing_pages/mercaris-special-report-2020-covid (1 July 2020)

Mie, A., Andersen, H.R., Gunnarsson, S., Kahl, J., Kesse-Guyot, E., Rembiałkowska, E., Quaglio, G. and Grandjean, P. (2017)Human health implications of organic food and organic agriculture: a comprehensive review, *Environmental Health*, 16(1), p. 111.

Mondelaers, K., Verbeke, W. and Van Huylenbroeck, G. (2009) 'Importance of health and environment as quality traits in the buying decision of organic products', *British Food Journal*, 111(10), 1120–1139.

Muhammad A.,P.,and Martien Van N. (2013) *How nutrition can protect people's health during COVID-19.* Available at: https://blogs.worldbank.org/voices/how-nutrition-can-protect-peoples-health-during-covid-19

Nagy-Pércsi, K. and Fogarassy, C. (2019) 'Important Influencing and Decision Factors in Organic Food Purchasing in Hungary', *Sustainability*, 11(21), p. 6075.

Naja, F. and Hamadeh, R. (2020) 'Nutrition amid the COVID-19 pandemic: a multi-level framework for action', *European Journal of Clinical Nutrition*. 20, p. 1–5.

Nayga, M.,R.,(2020), *Food purchase behavior during COVID-19 pandemic.* Available at: https://www.eeassoc.org/doc/upload/Food_purchase_behavior_during_COVID-19_pandemic20200408185246.pdf

Nguyen, N., L., and Khoi, B.H. (2020) 'An Empirical Study about the Intention to Hoard Food during COVID-19 Pandemic', *Eurasia Journal of Mathematics, Science and Technology Education*, 16(7) 1857.

Nielsen (2020) *Asian Consumers Are Rethinking How They Eat Post COVID-19.* Available at: https://www.nielsen.com/eu/en/insights/article/2020/asian-consumers-are-rethinking-how-they-eat-post-covid-19/ (10 May 2020)

Nieuwsbericht. (2020) *Fields of Green: The State of Organic Farming in Hungary -An overview of organic agriculture in Hungary today in the face of European green policies.* Available at: https://www.agroberichtenbuitenland.nl

NordeaTrade, (2020) *Advertising and marketing in Hungary.* Available at:https://www.nordeatrade.com/se/explore-new-market/hungary/marketing

OECD (2020), Better Life Index Hungary. Available at: http://www.oecdbetterlifeindex.org/countries/hungary/

Organic product Network (2020) *Q1 Organic Produce Performance with March update*. Available at: https://www.organicproducenetwork.com/amass/doc-get-pub/document/19/2020%20Q1%20Update%20v1%204-15-2020%20FINAL.pdf

Organic Trade Association (2020) COVID-19 will shape organic industry in 2020. Available at: https://organic-market.info/news-in-brief-and-reports-article/covid-19-will-shape-organic-industry-in-2020.html

Padel, S. and Foster, C. (2005) 'Exploring the gap between attitudes and behaviour: Understanding why consumers buy or do not buy organic food', *British Food Journal*, 107(8),606–625.

Paul, J. and Rana, J. (2012) 'Consumer behavior and purchase intention for organic food', *Journal of Consumer Marketing*, 29(6), p. 412–422.

Porta, D.D., Keating M., (2008) How many approaches in the social sciences? An epistemological introduction, in D.D. Porta and M. Keating (eds.) *Approaches and Methodologies in the Social Sciences: A Pluralist Perspective*, New York, Cambridge University Press. p19-39 Available at: https://cadmus.eui.eu//handle/1814/10052

Portfolio (2020) Coronavirus has not crushed the Hungarian economy yet Available at: https://www.portfolio.hu/en/economy/20200514/coronavirus-has-not-crushed-the-hungarian-economy-yet-431920

Radman, M. (2005) 'Consumer consumption and perception of organic products in Croatia', *British Food Journal*, 107(4), p. 263–273.

Sándor C. (2019) Öko, Bio, Organikus - ideggázok helyett, peszticidek. *Food & Wine*. Available at: https://foodandwine.hu/2019/08/15/oko-bio-organikus-ideggazok-helyett-peszticidek/ (15 February 2020)

Saunders, M.N.K., Thornhill, A. and Lewis, P. (2009) *Research Methods for Business Students*, 5th edition. New York: Pearson.

Scalco, A., Noventa, S., Sartori, R. and Ceschi, A. (2017) 'Predicting organic food consumption: A meta-analytic structural equation model based on the theory of planned behavior', *Appetite*, 112(1), p. 235–248.

Schiffman, L. G. & Kanuk, L. L. (2007) *Consumer Behavior*, 9th edition, New Jersey, Prentice Hall.

Schmidhuber, J., Pound, J. and Qiao, B. (2020) *COVID-19: Channels of transmission to food and agriculture*. Rome: Food and Agriculture Organization of United nation.

Schwandt, T. A. (2003) Three Epistemological Stances for Qualityative Inquiry: Interpretivism, hermeneutics, and social constructionism. In: N. K. Denzin, & Y. S. Lincoln (Eds.), The landscape of qualitative research (2nd edition, pp. 292-331) Thousand Oaks, CA: Sage.

Smith-Spangler, C., Brandeau, M.L., Hunter, G.E., Bavinger, J.C., Pearson, M., Eschbach, P.J., Sundaram, V., Liu, H., Schirmer, P., Stave, C., Olkin, I. and Bravata, D.M. (2012) 'Are Organic Foods Safer or Healthier Than Conventional Alternatives?: A Systematic Review', *Annals of Internal Medicine*, 157(5), p. 348.

Solomon, M., Bamossy, G., Askegaard, S. and Hogg, M.K. (2010) *Consumer Behaviour: A European Perspective*,4th edition. Harlow: Pearson. https://books.mec.biz/tmp/books/NXHQRTHBQ2L87NIU6YVN.pdf

Speciality food Magazine. (2020) *Online grocery sales to grow 33% in 2020 as Covid-19 changes shopping habits.* Available at: https://www.specialityfoodmagazine.com/news/online-grocery-sales-to-grow-33-in-2020-as-covid-19-changes-shopping-habits

Statista (Country Report) (2020) *Hungary* Available at: https://www.statista.com/study/48386/hungary/

Statista, (2020) *Organic food market in Europe - Statistics and Facts* Available at: https://www.statista.com/topics/3446/organic-food-market-in-europe/

Statistics and Emerging Trends (2013) FiBL-IFOAM Report. Research Institute of Organic Agriculture (FiBL), Frick, and International Federation of Organic Agriculture Movements (IFOAM), Bonn

Strenchock, L.P. (2012) *Local Food Systems in Budapest: Citizen Driven Conscious Food Consumption Initiatives to and their Ability to Shape* New Food Paradigms in Hungary. CEU, Budapest College.

Survey Monkey, 2020: *Conducting qualitative research*. Available at: https://www.surveymonkey.com/mp/conducting-qualitative-research/

Szente, V. (2015) *Consumer Motivations in the Purchase of Organic Foods in Hungary. 2015.*Available:https://www.researchgate.net/publication/289335572_Consumer_motivations_in_the_purchase_of_organic_foods_in_Hungary

Szente, V. A bizalommegítéléseaz ökoélelmiszerek piacán. (Judgment of trust on the market of organic foods) *Élelmiszer, táplálkozásés marketing*.2009, 6 (1-2): 59-63.

Szente, V. and Torma, D. (2015) 'Organic food purchase habits in Hungary', *Journal of Economic Development, Environment and People*, 4(1), pp. 32–40.

Szente, V., Torma, D., and Szendrő, K. (2017) 'Organic and Local Food Market – Alternatives Or Cooperation Possibility?', *International journal of multidisciplinary in business and science*, 3(3), pp. 85-92. Available at: https://hrcak.srce.hr/205723 (23 July 2020)

The Local, (2020) Danish consumers are 'world champions' of organic food: report Available at. https://www.thelocal.dk/20190213/danish-consumers-are-world-champions-of-organic-food-report-finds

Thøgersen, J. (2010) 'Country Differences in Sustainable Consumption: The Case of Organic Food:', *Journal of Macromarketing*, SAGE PublicationsSage CA: Los Angeles, CA Available at: 10.1177/0276146710361926.

Torjusen, H., Sangstad, L., O'Doherty Jensen, K. and Kjærnes, U. (2004) *European consumers' conceptions of organic food: A review of available research*. Oslo: National Institute for Consumer Research. Available at: https://orgprints.org/2490/ (20 March 2020)

Tornikoski, E., & Maalaoui, A. (2019) Critical reflections – The Theory of Planned Behaviour: An interview with Icek Ajzen with implications for entrepreneurship research. *International Small Business Journal*, *37*(5), 536–550. https://doi.org/10.1177/0266242619829681

Törőcsik M.,(2017), *Fogyasztói magatartás-Insight, trendek, vásárlók, Akadémia Kiadó* Available online at: https://mersz.hu/kiadvany/72

Törőcsik, Mária (2017*) Fogyasztói magatartás - Insight, trendek, vásárlók. [Customer behavior –insight, trends, shoppers] Akadémiai Kiadó. Budapest,* Hungary

Trade magazin (2017), *Survey: the eating habits of the Hungarians* Available at: https://trademagazin.hu/en/felmeres-kiderult-hogy-milyen-etkezesi-szokasok-jellemzik-magyarokat/

Trade Magazin, (2012) Magazine: Most Hungarians are convinced that organic food products are healthier. Available at: https://trademagazin.hu/en/egeszsegesebbnek-tartja-a-bioelelmiszert-a-magyarok-zome/

Trading Economics. (2020), *Hungary Unemployment Rate* Available at: https://tradingeconomics.com/hungary/unemployment-rate

United Nation (2020) *World Economic Situation And Prospects: May 2020 Briefing*, No. 137, available at: https://www.un.org/development/desa/dpad/publication/world-economic-situation-and-prospects-may-2020-briefing-no-137/

United Nations. (2020) *Sustainable Development Goals - United Nation.* Available at: https://sustainabledevelopment.un.org/post2015/transformingourworld

Vass, Á. (2019) *Hungarian Minimum Wage Still among the Lowest in EU*.

Viktória Szente (2015) 'Consumer motivations in the purchase of organic foods in Hungary', *Acta fytotechnica et zootechnica*, 18, p.145–147.

Világ Gazdaság,(2019),*Egyre rosszabb az elhízási helyzet Magyarországon- The obesity situation in Hungary is getting worse.* Available at: https://www.vg.hu/kozelet/egeszsegugy-kozelet/egyre-rosszabb-az-elhizasi-helyzet-magyarorszagon-1515126/

Watson, S. (2012) *Organic food no more nutritious than conventionally grown food., Harvard Health Blog* Available at: https://www.health.harvard.edu/blog/organic-food-no-more-nutritious-than-conventionally-grown-food-201209055264. (16 April 2020)

WHO ,(2020) *Novel Coronavirus (2019-nCOV) Situation Report 1*.,Available at: https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200121-sitrep-1-2019-ncov.pdf?sfvrsn=20a99c10_4

WHO, (2020) *Coronavirus disease (COVID-19),Situation Report-113,12th May,2020* available at: https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200512-covid-19-sitrep-113.pdf?sfvrsn=feac3b6d_2

WHO, (2020) *Coronavirus disease (COVID-19)*? Available at: https://www.who.int/emergencies/diseases/novel-coronavirus-2019 (8 July 2020)

WHO, (2020) *Disease outbreak news, Novel Coronavirus*. https://www.who.int/csr/don/en/

WHO, 2020*: WHO Director-General's opening remarks at the media briefing on COVID-19 - 20 March 2020,* Available at: https://www.who.int/dg/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---20-march-2020

Wier, M. and Calverley, C. (2002) 'Market potential for organic foods in Europe', *British Food Journal*, 104(1) pp. 45–62.

Wier, M., Andersen, L.M., Millock, K., O'Doherty Jensen, K. and Rosenkvist, L. (2005) 'Perceptions, values and behaviour: The case of organic foods', *Agriculture and Human Values* Available at: https://orgprints.org/5004/ (20 April 2020)

Willer, Helga, Julia Lernoud and Lukas Kilcher (Eds.) (2013) *The World of Organic Agriculture.*

Wynn A, (2019*) Terrible! Hungarian salaries among the lowest in the EU*: Available at: https://dailynewshungary.com/terrible-hungarian-salaries-among-the-lowest-in-the-eu/

Yelp (2020) *Coronavirus Economic Impact Report.* Available at: https://blog.yelp.com/2020/04/yelp-coronavirus-economic-impact-report

Yousafzai, A.K., Rasheed, M.A. and Bhutta, Z.A. (2013) 'Annual Research Review: Improved nutrition – a pathway to resilience', *Journal of Child Psychology and Psychiatry*, 54(4), p. 367–377.

Zanoli, R. and Naspetti, S. (2002) 'Consumer motivations in the purchase of organic food: A means-end approach', *British Food Journal*, 104(8), 643–653.

Zikmund, W. G., Babin, B. J., Carr, J. C. and Griffin, M. (eds.) (2010) *Business research methods*. 8th edition. Mason, Ohio: South-Western.