IBN HALDUN UNIVERSITY
SCHOOL OF GRADUATE STUDIES
DEPARTMENT OF MANAGEMENT

MASTER THESIS

THE EFFECTS OF CONSUMER DECISION MAKING STYLES ON ORGANIC FOOD PURCHASE INTENTION DURING COVID-19

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THESIS SUPERVISOR

ASSOC. PROF. ALİ OSMAN KUŞAKCI

ISTANBUL, 2021

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by

ZEYNEP YENİ EROL

A thesis submitted to the School of Graduate Studies in partial fulfillment of the requirements for the degree of Master of Arts in Management

THESIS SUPERVISOR

ASSOC PROF. ALİ OSMAN KUŞAKCI

ISTANBUL, 2021

APPROVAL PAGE

This is to certify that we have read this thesis and that in our opinion it is fully adequate, in scope and quality, as a thesis for the degree of Master of Arts in Management.

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This is to confirm that this thesis complies with all the standards set by the School of Graduate Studies of Ibn Haldun University.

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I hereby declare that all information in this document has been obtained and presented in accordance with academic rules and ethical conduct. I also declare that, as required by these rules and conduct, I have fully cited and referenced all material and results that are not original to this work.

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ÖZ

COVID-19 SIRASINDA TÜKETİCİ KARAR VERME TARZLARININ ORGANİK GIDA SATIN ALMA NİYETİ ÜZERİNE ETKİLERİ

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Bu çalışmada, tüketici karar verme tarzlarının organik gıda özelinde belirlenmesi ve bu tarzların Kovid-19 sürecinde organik gıda satın alma niyeti üzerine etkisinin incelenmesi amaçlanmıştır. Ayrıca tüketici karar verme tarzları ve organik gıda satın alma niyeti, sağlıklı beslenme danışmanlığı ile ilişkilendirilmiş ve çalışmada bu ilişkiler incelenmiştir. Sproles ve Kendall (1986) tarafından geliştirilen, sekiz tarzdan oluşan tüketici stilleri envanteri organik gıda içeriğine uyarlanmış ve çalışmanın kapsamı gereği sağlık ve çevre bilinci başlıklı iki karar verme tarzı daha eklenmiştir. 369 kişinin katıldığı sonuçlar, toplamda değerlendirilen on tarzdan sekizinin bu çalışma ile doğrulandığını göstermiştir. Bu sekiz tarzın organik gıda satın alma niyeti üzerindeki etkisi incelendiğinde, yedi tarzın etkili olduğu tespit edilmiştir: mükemmeliyetçilik/yüksek kalite bilinci, marka bilinci, çeşit karmaşası, eğlence/hazcı alışveriş bilinci, dürtüsellik, sağlık bilinci ve çevresel bilinç. Çalışmanın diğer bir dikkat çeken sonucu olarak, sağlıklı beslenme danışmanlığı almada çevre bilinci olumlu yönde etkili bulunurken, alışkanlık/marka bağlılığı bilinci olumsuz yönde etkili bulunmuştur. Son olarak, sağlıklı beslenme danışmanlığı alan kişilerin, kovid-19 döneminde organik gıda satın alma niyetinin daha yüksek olduğu tespit edilmiştir.

Anahtar Kelimeler: Karar Verme Tarzları, Organik Gıda, Sağlıklı Beslenme Danışmanlığı, Tüketici Tarzları Envanteri

ABSTRACT

THE EFFECTS OF CONSUMER DECISION MAKING STYLES ON ORGANIC FOOD PURCHASE INTENTION DURING COVID-19

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This study aimed to profile consumer decision making styles (CDMSs) in the context of organic food and to examine the effect of CDMSs on organic food purchase intention (OFPI) of Turkish people during Covid-19. Furthermore, having healthy nutrition counseling, was investigated both in terms of CDMSs and OFPI during Covid-19. Consumer styles inventory (CSI) by Sproles and Kendall (1986) was adapted in the context of organic food with two more styles, health and environmental consciousness added to the study. The results, in which 369 people participated, showed that eight of the ten factors evaluated in total were validated by this study. When the effect of these eight factors on the intention to buy organic food was examined, seven factors were determined as effective: Perfectionism/High Quality Consciousness, Brand Consciousness, Confusion by over Choice, Recreational/Hedonistic Shopping Consciousness, Impulsiveness, Health Consciousness and Environmental Consciousness. On the other hand, while Environmental Consciousness was found to be positively effective for having healthy nutrition counseling, Habitual/Brand Loyal Consciousness was found to be negatively effective. Additionally, having healthy nutrition counseling was found to be positively influencing OFPI during Covid-19.

Keywords: Consumer Styles Inventory, Decision Making Styles, Healthy Nutrition Counseling, Organic Food.

I dedicate this thesis to my beloved husband and kids
Omer, Ravza and Agah
For constantly being light of my life

ACKNOWLEDGMENTS

I would like to thank my esteemed advisor, Assoc. Prof. Ali Osman Kuşakcı, who guided me for this research and helped me overcome the difficulties I faced with his knowledge and experience. Besides our regular meetings, he was always available whenever I needed his guidance and was very generous in allocating his precious time and knowledge. It was a great opportunity for me to work with him.

I must also express my gratitude to my family, my husband and children, who have approached this process with understanding in every way. Sometimes my kids waited patiently away from me when I needed to attend classes and study, and sometimes they accompanied me to classes. My husband has always supported me with his belief in me.

Finally, I like to express my appreciation for my mother and father for their unconditional love and encouragement.

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LIST OF SYMBOLS AND ABBREVIATIONS

ANOVA	Analysis of Variance
BC	Brand Consciousness
BLC	Brand Loyal Consciousness
CDMSs	Consumer Decision Making Styles
CDC	Centers for Disease Control and Prevention
COC	Confusion by Over Choice
CSI	Consumer Styles Inventory
EC	Environmental Consciousness
GMOs	Genetically Modified Organisms
HC:	Health Consciousness
IC	Impulsiveness
KMO	Kaiser-Meyer-Olkin Measure of Sampling Adequacy
NC	Novelty-Fashion Consciousness
OFPI	Organic Food Purchase Intention
PC	Perfectionism/High Quality Consciousness
PCS	Profile of Consumer Style
RHC	Recreational/Hedonic Shopping Consciousness
VMC	Price/Value for Money Consciousness
WHO	World Health Organization

CHAPTER I

INTRODUCTION

Organic food is mostly described as the food produced without any additives, pesticides, genetically modified organisms and chemicals. To name a product 'organic' it must meet specified conditions from seed to table. These procedures provide the food safety and trust for the product. However, consumers may purchase organic food without questioning its production process. As organic food does not contain any chemicals, pesticides, additives or genetically modified organisms (GMOs), it is believed that organic food is healthier than conventional food because many studies have shown that those products used in production can accumulate in the body and cause many illnesses when they are consumed for a long time. However, conventional food still may be the first choice of the consumer because of some specific reasons.

In the last century, with the technology revolution, the food industry became an essential sector within the world economy. Many different ways to produce food were invented. Conventional packaged products became very popular among consumers all over the world since they are considerably cheap, easy to reach, mostly ready to use and tasty. Since organic food production process has some specific procedures, it sometimes can make the production cost higher than conventional food. Additionally, because of not having any preservative additives, the shelf life of organic food is usually less than the conventional food products. On the other hand, all these disadvantages are valid for the producers as well, so the availability of organic food is much less than conventional food. Moreover, the most part of the production process of those conventional products contain additives which are not health-friendly. In the long run, too many additives used in the diet cause serious health problems. Therefore, many people have tended to find better, healthier choices when it comes to food although it may cost more. In recent years, organic food has become very popular among consumers and so the retailers and producers have increased the supply of such

products along with the increasing demand. It is mostly because of increasing health consciousness in the society which has become an essential factor for shopping behavior of consumers. Besides, there are other factors making organic food preferable such as being environmental-friendly, tasty, safe and trustable. Namely, organic food has become a preferred product.

As health and wellness consciousness can be considered as the most important factor for purchasing and consuming organic food, organic food has gained more ground after Covid-19 emerged in our lives (Ćirić, 2020; Xie, Huang, Li, & Zhu, 2020). With the pandemic, having a strong immune system became much more essential, thus changing our eating habits into a healthier way to stay strong against the virus, is one of our main objectives in life. As organic food represents healthy food in terms of nutrition, it is important to increase the percentage of consumption in a daily diet. Therefore, academicians and marketers have started to focus on consumers' intention to purchase organic food (Anwar, Sharf, Usman, Panday, & Asif, 2020). Understanding consumers' intention to purchase organic food would help to create a path to increase production of organic food as well as to increase consumption of it.

It is important to clarify consumers' attitudes to organic food to be able to improve the organic food industry and marketing strategies as well as point the way to additional academic studies. One of the most effective approaches to understand consumers' attitudes is to identify consuming profile of potential organic food purchasers. This can be possible by profiling consumer decision making styles (CDMSs) regarding organic food purchase intention (OFPI). CDMSs has been investigated a lot in the literature in many different fields (Bakewell & Mitchell, 2003; Hafstrom, Chae, & Chung, 1992; Lysonski, Durvasula, & Zotos, 1996; Mitchell & Walsh, 2004) since it was defined as "a mental shopping orientation characterizing a consumer's approach of making choices" (Sproles & Kendall, 1986). The consumer styles inventory (CSI) which was created by Sproles and Kendall (1986) to measure CDMSs has been implemented in different studies with different samples to prove its validity (Bates, 1998; Hiu, Siu, Wang, & Chang, 2001; Topaloğlu, Kifo, & Kuşakcı, 2019). As a result, in most studies it was concluded that CSI is responsive to identify consumer purchasing behavior.

With the motivation stated above, this study aims to identify CDMSs while purchasing organic food and the relationship between CDMSs and OFPI during Covid-19. There are a few recent studies investigating OFPI via CDMSs (Ceylan & Alagöz, 2020; Prakash, Singh, & Yadav, 2018), which confirm the freshly emerging interest in the subject. Furthermore, there are no studies that include the effect of the Covid-19 on this subject. Additionally, evaluation of the sample, from which the data has been collected, in terms of getting healthy nutrition counseling added a different dimension to the study. Therefore, profiling CDMSs on organic food by implementing CSI will be an important contribution to the scant literature in order to understand consumers' OFPI during the Covid-19 pandemic.

1.1. Research Question

This study investigates the relationship between CDMSs and OFPI during Covid-19. It is important to clarify consumers' attitudes regarding organic food since the consumption of organic foods are highly recommended by health professionals. One of the best ways to determine consumers' attitudes is identifying CDMSs; therefore, CDMSs are investigated in the context of organic food and analyzed with the correlation of their OFPI after Covid-19 emerged.

Initially, to be able to examine CDMSs in depth, influencing factors were examined. Accordingly, the study also investigated how CDMSs in the organic food category were affected by socio-demographic factors such as gender, age, education level and income level.

Furthermore, as it is mentioned in the literature that healthy nutrition has a strong effect on Covid-19, this study analyzed that if having a healthy nutrition counseling has a significant effect on CDMSs and also OFPI. Finally, as the base of the study, it is also revealed wheather or not CDMSs have a significant influence on OFPI.

1.2. Conceptual Framework

In order to better understand the general structure of the study, a visual framework has been prepared. Figure 1 represents the conceptual framework which consist of

four main constructs of the study and the relationship between them.

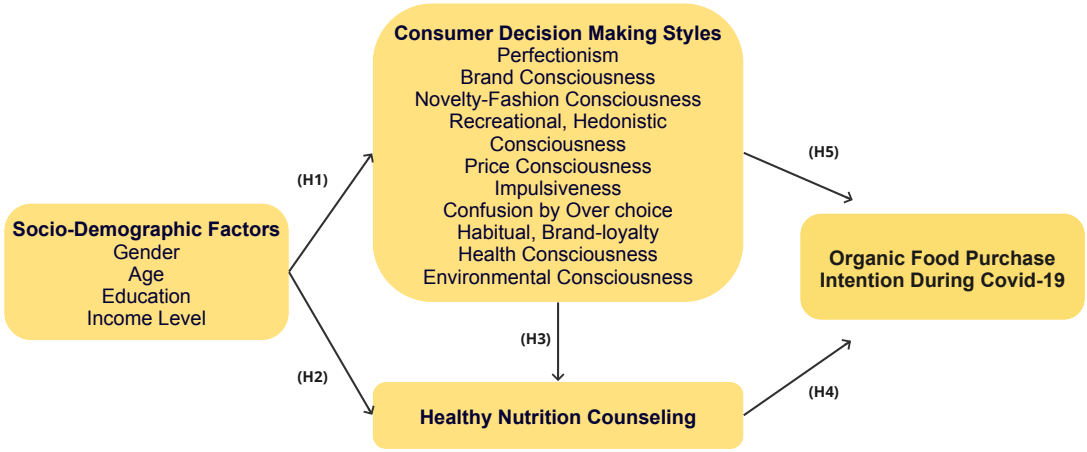

Figure 1.1. Research Framework

Accordingly, we propose the following hypotheses.

Hypothesis 1: CDMSs in organic food category are affected by socio-demographic factors.

Hypothesis 1a: Gender has a significant influence on CDMSs in organic food category.
Hypothesis 1b: Age has a significant influence on CDMSs in organic food category.
Hypothesis 1c: Education level has a significant influence on CDMSs in organic food category.
Hypothesis 1d: Income level has a significant influence on CDMSs in organic food category.

Hypothesis 2: Having a healthy nutrition counseling is affected by socio-demographic factors.

Hypothesis 2a: Gender has a significant influence on having a healthy nutrition counseling.
Hypothesis 2b: Age has a significant influence on having a healthy nutrition counseling.
Hypothesis 2c: Education level has a significant influence on having a healthy nutrition counseling.

Hypothesis 2d: Income level has a significant influence on having a healthy nutrition counseling.

Hypothesis 3: Having a healthy nutrition counseling is affected by CDMSs.

Hypothesis 3a: Perfectionism/High Quality Consciousness significantly influences having a healthy nutrition counseling.
Hypothesis 3b: Brand Consciousness significantly influences having a healthy nutrition counseling.
Hypothesis 3c: Novelty Consciousness significantly influences having a healthy nutrition counseling.
Hypothesis 3d: Recreational/Hedonistic Shopping Consciousness significantly influences having a healthy nutrition counseling.
Hypothesis 3e: Price Consciousness significantly influences having a healthy nutrition counseling.
Hypothesis 3f: Impulsiveness significantly influences having a healthy nutrition counseling.
Hypothesis 3g: Confusion by Over Choice significantly influences having a healthy nutrition counseling.
Hypothesis 3h: Habitual/Brand Loyal Consciousness significantly influences having a healthy nutrition counseling.
Hypothesis 3i: Health Consciousness significantly influences having a healthy nutrition counseling.
Hypothesis 3j: Environmental Consciousness significantly influences having a healthy nutrition counseling.

Hypothesis 4: Having a healthy nutrition counseling has a significant effect on OFPI during Covid-19.

Hypothesis 5: OFPI during Covid-19 is affected by CDMSs.

Hypothesis 5a: Perfectionism/High Quality Consciousness significantly influences OFPI.
Hypothesis 5b: Brand Consciousness significantly influences OFPI.

Hypothesis 5c: Novelty Consciousness significantly influences OFPI.

Hypothesis 5d: Recreational/Hedonistic Shopping Consciousness significantly influences OFPI.

Hypothesis 5e: Price Consciousness significantly influences OFPI.

Hypothesis 5f: Impulsiveness significantly influences OFPI.

Hypothesis 5g: Confusion by Over Choice significantly influences OFPI.

Hypothesis 5h: Habitual/Brand Loyal Consciousness significantly influences OFPI.

Hypothesis 5i: Health Consciousness significantly influences OFPI.

Hypothesis 5j: Environmental Consciousness significantly influences OFPI.

CHAPTER II

LITERATURE REVIEW & THEOROTICAL BACKGROUND

2.1. Consumer Behavior and Organic Food Shopping

2.1.1. What is Organic Food?

The word ‘organic’ is being used in several different meanings in different contexts. There is no common definition of ‘organic food’ worldwide. However, the International Federation of Organic Movement defined organic food as the products produced from organic agriculture with a certain process based on certain principles: principle of health, principle of ecology, principle of fairness and principle of care (Luttikholt, 2007). This process does not include pesticides, growth hormones, artificial colors, genetically modified organisms, artificial additives, preservatives and artificial flavors. This process is not only valid for the production but also for the base of the production such as the soil of the farm, used seeds and fertilizers as well as packaging and facilities. All these requirements of organic food are obliged to intense control and restrictive regulations which provide the high quality of organic food and so trustworthiness of the product (Nechaev, Mikhailushkin, & Alieva, 2018; Willer & Lernoud, 2019). Organic food also represents the food which is ecologically produced in a natural way, not harmful for the environment and produced without artificial additives. Thus, it is believed it is not just healthier than conventional food but also tastier, safer and it has more nutrients than conventional food (Voon, Ngui, & Agrawal, 2011).

A review study by Lairon (2009) which investigated nutritional quality and safety of organic food indicates that organic meat from organic fed cows contains more poly unsaturated fatty acids which is recommended as essential for the body by health

experts. Organic fruits and vegetables contain more micronutrients such as minerals and vitamins compared to their conventional counterparts. Additionally, some phytomicronutrients such as carotenoids, resveratrol and polyphenols, which are stated in literature as protectors for some serious illnesses like cancers or chronic inflammation, are found in higher levels in organic fruits and vegetables. The antioxidant effect of organic food on cancer cells have been observed higher compared to inorganic food. Besides the increase in these beneficial contents, a decrease in harmful content is also observed. Pesticide residues is found less in all kind of organic food. There was less nitrate in organic vegetables and less saturated fatty acids in organic meat (Lairon, 2010). All these outcomes from the literature indicate that organic food can be evaluated as healthier, safer and better in quality.

While the research about organic food have such a positive position, determining the attitudes of consumers in order to increase the consumption of organic food will constitute an important input for researchers and marketing professionals while designing marketing campaigns and establishing company strategies.

2.1.2. Consumers' Attitudes on Organic Food

It is important to identify the potential purchasers of organic food especially for the members of organic industry to be able to reach their target effectively and make more profit. To predict and explain consumer's purchase decision across food products, one of the most important antecedents is consumer's attitude towards the product which can be explained as a permanent evaluation of a product against its alternatives based on consumer's thoughts, believes and emotions (Honkanen, Verplanken, & Olsen, 2006). Therefore, profiling organic food consumers by understanding their attitudes on purchase decision is the most effective approach to find out who are the customers of organic food (Dettmann & Dimitri, 2009).

There are several studies addressing organic food consumption in the literature. Generally speaking, consumers take different approaches while making a purchase decision. However, there are two fundamental factors effecting OFPI reported in the literature, which are food safety and eco-friendliness (Lee & Hwang, 2016). Furthermore, with the increasing awareness of Health Consciousness and

Environmental Consciousness of consumers, these two factors are assumed as main factors of OFPI (Ceylan & Alagöz, 2020). In a study which examines the differences of organic food consumption among different cultures in West European countries, the results proved that health was the prime motive to consume organic food for all consumers while the significance of other cultural dimensions varied (First & Brozina, 2009).

2.1.2.1. Health Consciousness

Since organic food is mostly interrelated with Health Consciousness and Environmental Consciousness, these behavioral attitudes have been examined in previous studies (Honkanen et al., 2006). One of the most important reasons people choose organic food instead of inorganic food is that they perceive organic food has a positive effect on their health (Andersen, 2008). Because organic food is considered as more nutritious and safer than inorganic food, consumers' attitudes improve positively especially when they are health conscious consumers (Michaelidou & Hassan, 2008).

Health Consciousness evaluates a person's behavior if he is ready or not to undertake health actions which can be expressed as motivation to be protected from diseases or to have better health condition (Becker, Maiman, Kirscht, Haefner, & Drachman, 1977). Consumers who are described as health conscious are the people who are concerned about their health and take precautions in this regard to improve their well-being and quality of life, avoid illnesses or recover from bad health (Michaelidou & Hassan, 2008). Health conscious individuals are more protective in their general appearance and they trust more in the effectiveness of healthy actions compared to other individuals who are not considered as health conscious. Therefore, it motivates consumers to maintain their health by taking preventive actions, such as consuming organic food (Mai & Hoffmann, 2015).

The majority of health-conscious consumers are assumed to prefer utilitarian objective of healthiness instead of temporary pleasure. Since they pay more attention to healthiness in order to maintain healthier life, they do not prioritize taste instead (Mai & Hoffmann, 2015). Health Consciousness of a consumer which varies in different

levels is mostly influenced by consumer's behavior on health information such as how he or she pursues the information and also how he or she responds. Identify Health Consciousness levels may be useful to establish health initiatives by applying different approaches to consumers in different levels (Hong, 2009).
Organic food consumers mostly believe that there is a strong relationship between health and food intake, thus they prefer to choose healthy options to improve their health and also they appreciate having access to healthy and natural food in their grocery shopping (Schifferstein & Ophuis, 1998).

2.1.2.2. Environmental Consciousness

Consumers are paying more attention to their health as well as the environment, thus ecological products such as organic foods are becoming more and more popular. Hence, most people consider organic food as healthier and safer. Specifically, organic production methods are regarded as more environmentally friendly (Paul & Rana, 2012). It was underlined by Coddington (1993) that consumers orientation has also changed towards the direction of health and safety for protecting the environment. As consumers became more worried about this threat and how environmental damage could affect their health negatively and threaten their safety, the producers and marketing experts had to consider the environment as a fundamental factor in consumer purchase decision making. Besides, organic food has become more attractive to consumers since Health Consciousness and confidence in food were the significant attitudes impacting their decision making (Coddington & Florian, 1993; Paul & Rana, 2012).

Environmental consciousness which is also mentioned as ecological awareness has been described in various expressions in literature. There are different factors identifying consumers' awareness on environmental context such as demographic and socio-economic variables, environmental knowledge, psychographic variables (Fraj & Martinez, 2007). When these factors, which are significantly influential on consumer behavior, are examined to interpret the Environmental Consciousness, the ecological problems will be understood. Although Environmental Consciousness levels differ among consumers, these factors are strong motives on their decisions (Paul & Rana, 2012). Because, nowadays, people believe that companies and institutions are not the

only ones responsible to protect the environment, they believe that individuals are also responsible as they are the demanders of such products. When consumers make purchase decision on environmental friendly products, the other options will be eliminated as the sector works on demand and supply balance (Fraj & Martinez, 2007). Thus, their behavior will help to protect the environment in the long-run. The people who are categorized as ecological consumers, are mostly committed to continuous improvement since they believe in changing to protect the environment for the next generations by making environmentally friendly choices, attending events, and supporting ecological awareness (Fraj & Martinez, 2007; Paul & Rana, 2012). In brief, organic food is very attractive to the environmental conscious consumers with its eco-friendly features.

2.1.2.3. Hedonic Attitudes

In the literature, consumers' approaches to a product are explained by two basic dimensions: hedonic and utilitarian. Hedonic dimension arises from the sensations which results from the experience of using the products (Voss, Spangenberg, & Grohmann, 2003). The perception of organic food is not only depending on the health benefits or being ecofriendly. They are also attractive with their original taste which is stated as the most important criteria to purchase organic food in several studies (Hughner, McDonagh, Prothero, Shultz, & Stanton, 2007), charming appearance and freshness. In addition, consumers are willing to pay more on organic food because of its quality. Accordingly, when compared to inorganic food, satisfaction level from organic food affects the purchase intention (Paul & Rana, 2012).

2.1.2.4. Availability

Another factor influencing OFPI is availability. As the business owners realized the huge demand on organic food, they started to expand the organic food supply chain and reached almost all of the food retail outlets. They increased accessibility to organic food by adding more organic food selections to supermarket shelves (Dettmann & Dimitri, 2009). When consumers are making purchase decision on a specific product such as organic food, it is important to be able to reach it easily. Otherwise, unavailability becomes a handicap to purchase organic food. Even if their attitudes are

strongly positive on organic food, unavailability could prevent them taking action. On account of this, marketers are willing to bring more organic products to the market. (Paul & Rana, 2012). So, the availability may change consumer's purchase intention.

2.1.2.5. Demographic Characteristics

Besides the attributes of organic food, purchase intention is also affected by demographic characteristics of consumers. The results of Paul and Rana's (2012) study showed that gender, family members and household income have no significant effect on organic food purchases, however, education level and location of consumers have a positive relationship with organic food purchases. With high levels of education, consumers are more willing to buy organic food (Paul & Rana, 2012).

2.1.2.6. Knowledge

On the other hand, some consumers are lacking information about organic food; they maybe have heard the term but do not have any knowledge of organic food's features. Because of marketing strategies, they may confuse the terms like natural or cage-free with organic. This lack of information can cause confusion in consumers' mind (Hughner et al., 2007). Knowledge of a product is considered as an influencing element in decision-making process of a consumer. A study examining factors that affect consumer attitudes on organic food in Hong Kong showed that organic food knowledge has a positive relationship with attitudes about organic food (Cheung, Lau, & Lam, 2015). For this reason, their attitudes on organic food may be neutral or even negative when they do not have sufficient information.

2.1.2.7. Trust on Food Safety

Even with a knowledge, trust of organic food claims is a strong factor for consumers to decide to use. Since it is not possible to evaluate the product immediately when it is consumed as if it is healthier or safer, the consumer has to trust the manufacturers or retailers, product labeling or the certifications of the product (Voon et al., 2011). It is not enough to trust in organic food that it is more advantageous than conventional food, the trust on labeling is also needed to be able to evaluate the product.

2.1.2.8. Overall Determinants

Hughner et al. (2007) determined 15 themes of the motives and deterrents on consumers' purchasing organic food which is a good summary of consumer's purchase intention. Health and nutritional concern, environmental concern, animal welfare concern, food safety, lack of confidence in the conventional food industry, support of local economy, more wholesome, nostalgia and fashionable, and superior taste are identified as consumers' purchasing motives. On the other hand, high price premiums, lack of availability, poor merchandising, skepticism of certification boards and organic labels, insufficient marketing, satisfaction with current food source and sensory defects are defined as deterrents to purchase organic food (Hughner et al., 2007).

As a result of all these evaluations in the literature, besides other factors, it is observed that the two most prominent factors impacting on consumers' attitudes on organic food are Health Consciousness and Environmental Consciousness.

2.1.3. Covid-19 Effects on Food Choices

The world is currently facing a pandemic, which is affecting every individual's life in a variety of ways. To prevent the rapid spreading of the virus, authorities had to implement curfew and some regulations such as social distance, limitation of number of people in certain places, isolation at home, which most people have never experienced in their lives (Deveci, Aydın, & Kuşakcı, 2021; Zajenkowski, Jonason, Leniarska, & Kozakiewicz, 2020). Now it has been more than a year and it is uncertain when it will end. This huge change in life style has drastically transformed people's perspective on life and also influenced their habits. Choosing food is a daily activity and mostly food choices are done in a routine, which arises from habitual behavior that particularly does not change regularly in adults. However, when the living environment of people undergoes a big and unexpected change, it is inevitable that their habits will also change as they need to respond with a new decision making process to the requirements of the new environment (Marty, de Lauzon-Guillain, Labesse, & Nicklaus, 2021; Verplanken & Wood, 2006). Thus, after Covid-19 emerged and brought restrictions and therefore changes in our lives, people's eating habits also evolved in a different direction.

During the lockdown, the changed environment particularly working conditions such as smart working affected people's eating habits. A study conducted in Italy in April 2020 indicated that more than half of the participants (total 3533) stated that their hunger and satiety perception had changed. While 17.7% of the participants felt less appetite, 34,4% felt more appetite. However, the percentage of participants who decreased the junk food from their daily diet was higher than the participants who increased. In addition, 15% of the subjects tended to use organic retailers for fresh fruits and vegetables (Di Renzo et al., 2020). A study examined food choices of 938 French adults during the lockdown period and concluded that there is a positive relationship between weight control motives and increased nutritional quality during the lockdown. However, the mood motives, which is found as the most effective factor of food choices during the lockdown, associated with decreased nutritional quality. Overall, the study resulted as 14% of the respondents expressed that their daily energy intake has increased and nutritional quality of their diet has decreased during the lockdown when it is compared to previous eating habits (Marty et al., 2021). Since negative psychological conditions can cause overeating syndrome with food high in fat, sugar and salt, Covid-19 may lead people to bad eating habits because of its stress factors such as self-isolation and boredom at home (Di Renzo et al., 2020).

Another aspect of the issue is observed in China. As it is known that coronavirus was firstly identified in a wild animal in Wuhan and spread to human via eating it, consumers' perception to food has been affected. An anxiety has occurred in people's minds specifically on game meat because of the microbiological risks. Therefore, most people tend to purchase organic food as it is considered to be safer with its non-chemical production process and lower microbiological risks (Xie et al., 2020). Ben Hassen et. al. (2020) indicated that consumers tend to shift to healthy food choices on their daily consumption by reducing unhealthy foods like snacks high in flour and sugar. Instead, they increased not only fresh fruits and vegetables but also water consumption and replaced unhealthy snacks with healthy options due to the health and food safety concerns caused by the coronavirus (Ben Hassen, El Bilali, & S Allahyari, 2020). For the same reason, an increase of adherence to a Mediterranean diet was observed in Spanish (Sánchez-Sánchez et al., 2020) and Italian populations (Di Renzo et al., 2020).

On the other hand, healthy eating habits became more essential during the pandemic because of its effect on the immune system. Centers for Disease Control and Prevention (CDC) included overweight and obese people at increased risk of coronavirus besides other certain medical conditions such as cancer, chronic kidney disease, chronic lung diseases, diabetes, heart conditions etc. (CDC, 2021). When the probable connections between diet and Covid-19 death rates in different countries investigated, the results showed that in some countries such as Turkey, Greece, Romania, Bulgaria, Korea and Taiwan where people have some certain foods in their culture such as fermented cabbage and fermented milk products, lower mortality rates were observed (Bousquet et al., 2020). To prevent the increase of diet-related diseases, individuals should adjust their daily diet by increasing healthy food consumption and decreasing unhealthy food consumption. There are several actions such as education, declaration, tax regulations and restrictions by the authorities to encourage people about changing their eating habits (Mai & Hoffmann, 2015). Most of the people who participated in a study which investigated green food purchase intention in China during coronavirus outbreak declared that their intention to purchase green food has increased because of the health concerns emerged with the pandemic. Almost half of the participants (46.43%) expressed that they felt more aware about the importance of health as well as food safety compared to their awareness before Covid-19. Accordingly, they did their best to reach the healthy food. However, although their willingness to buy green food was high, consumption of some participants could not increase in the same level due to the restriction of the pandemic such as curfews and lack of availability (Qi, Yu, & Ploeger, 2020). Considering the results reported in the current body of research on the relationship between pandemic and consumption of organic food, there are controversial implications. While some studies claim that there is a positive relationship among the two constructs, some others suggest the excessive stress caused by Covid-19 triggered more food consumption which has increased the obesity risks.

2.2. Consumer Decision Making Styles

2.2.1. Background of Consumer Decision Making Styles

In the literature, consumers' behavior has been examined in many studies. Specifically, when buying a product within several alternatives, it has been shown that decision-making process of consumers is affected by many different factors. Nevertheless, it is possible to make a general classification for CDMSs depending on certain generic characteristics. (Sproles & Kendall, 1986). This classification may be very useful not just for academic studies but also for marketing professionals working in the field. It is mentioned three main approaches in the literature: "*consumer characteristics approach, consumer typology approach and psychographic/lifestyle approach*". These three approaches points to a common characteristic, which indicate that consumers make their purchase decision with certain styles such as rational shopping, brand awareness and price-quality consciousness. Although all of them were useful, the consumer characteristics approach was assumed as the most explanatory approach because of its mental oriented focus on consumer decision making process (Lysonski et al., 1996). All these approaches to characterize consumer styles were beneficial, however there was a gap that there was no instrument in common use for the researchers interested in consumer interest studies. Sproles and Kendall (1986) created a methodology to profile CDMSs as it would help to categorize consumers for many different purposes. Therefore, they developed a CSI to measure the characteristics of consumers. Because consumer characteristic approach assumes that purchasing intention should be identified to determine CDMSs (Lysonski et al., 1996). They also identified eight basic characteristics of consumers as Profile of Consumer Style (PCS) by the factor analysis, which is a valuable resource for consumer-interest studies (Sproles & Kendall, 1986).

2.2.2. Consumer Styles Inventory

To create a CSI, Sproles and Kendall (1986) defined four criteria to be able to develop a method. First of all, this method should include mental characteristics of a real-world consumer which should be fundamental for consumer decisions such as quality consciousness. Secondly, the method should be perfect and describe the characteristics

as principal and independent. Furthermore, the rating of a consumer on each characteristic should be measurable. A consumer style may be formed with various measurable features, according to this, consumer profile should be created. Finally, the method should meet the requirements of professionals who are interested in this field.

The second step to create a method to measure CDMSs was to identify the main characteristics within the ones already exist in the literature. Sproles and Kendall (1986) identified eight characteristics as major according to the four criteria which are:

- Perfectionism/High Quality Consciousness
- Brand Consciousness
- Novelty-Fashion Consciousness
- Recreational, Hedonistic Shopping Consciousness
- Price And "Value for Money" Shopping Consciousness
- Impulsiveness
- Confusion from Over Choice
- Habitual, Brand-Loyal Orientation Toward Consumption

All those characteristics which were the most commonly discussed characteristics in the literature have emerged from consumer-interest studies and express that CDMSs are mostly mental oriented approaches specifically when choosing a product (Sproles & Kendall, 1986).

A well-designed CSI which measures the eight characteristics of CDMSs was implemented by using Likert-scale, which was on the basis of another exploratory study (Sproles, 1985). As a result of this study, it was confirmed that eight factor model which represents eight major characteristics of CDMSs, succeeded with the CSI factor analysis. In addition, a PCS was presented to be used by academicians and also by the practitioners. However, the confirmation of reliability and validity has done with the sample of high school students living in the United States. Therefore, it was recommended to confirm the reliability and validity of the CSI across different populations (Sproles & Kendall, 1986).

2.2.3. Profile of Consumer Style

As Sproles and Kendall (1986) defined the PCS with eight items. These 8 styles are described in literature as follows (Bakewell & Mitchell, 2003; Ceylan & Alagöz, 2020; Sproles & Kendall, 1986)

2.2.3.1. Perfectionism/High-Quality Consciousness

Perfectionist and high-quality oriented consumers commonly do their shopping more carefully and systematically. These consumers are not satisfied with the product, which can be assumed as 'good enough'. They look for the product, which should be considered as the very best product in quality.

2.2.3.2. Brand Consciousness

Brand conscious consumers follow the statement 'price equals quality'. They believe that higher price provides higher quality. Therefore, they are more prone to buy expensive products as well as from the well-known brands. The best-selling advertised brands are also one of their first choices.

2.2.3.3. Novelty-Fashion Consciousness

People in this category who are novelty conscious and fashion conscious together, are those, who enjoy shopping, adapt to changing fashion, always keep their styles updated. They usually search for the new, and they like to be admired and attract attention with the products they use. Being stylish and different is important to these consumers.

2.2.3.4. Recreational/Hedonistic Shopping Consciousness

Recreational and hedonistic shopping conscious consumers believe that shopping is a way of entertainment. Such consumers generally focus on hedonic benefit of shopping rather than functional benefit of it.

2.2.3.5. Price and "Value for Money" Shopping Consciousness

Price conscious consumers generally prefer to buy low priced products. They follow the discount seasons of the products and they mostly buy the product when it is on sale. They are very sensitive to get the best value for their money. For this reason, they tend to compare the products in the market.

2.2.3.6. Impulsiveness

Consumers' orientation in this style is impulsive and careless on their shopping. They are the consumers who act indifferently in their purchasing activities and make decisions without thinking. Their shopping activities are mostly unplanned. They do not pay attention to the amount of money and the quality of the shopping.

2.2.3.7. Confusion from Over Choice

This style describes consumers who are confronted with an overload of information with different brands and products and they have difficulty choosing between different options.

2.2.3.8. Habitual/Brand-Loyal Orientation Toward Consumption

Habitual, brand-loyal consumers have the behavior of buying periodically from well-known brands and stores, which are their favorites. They are always loyal to their brands and prefer to buy the same products.

2.2.4. CSI in the Literature

As it was recommended to confirm the reliability and validity of the CSI by implementing it in different samples, many studies have been done to validate the instrument. Most of them confirmed the validation of the CSI but with a few differences.

A study done in New Zealand to verify cross cultural generalizability of CSI for profiling CDMSs showed that CSI can be appropriate for different cultures. The study aimed to analyze psychometric features of the CSI with a sample of 210 undergraduate

students from business school in New Zealand. They examined the factor analysis of 40 items inventory to compare it with the original factors which were determined by Sproles and Kendall (1986). They also compared the Cronbach alpha coefficients to demonstrate the reliabilities of the eight factors. All the compared results showed that the similarities between New Zealand sample and United States sample confirm the cross cultural generalizability of the CSI. (Durvasula, Lysonski, & Andrews, 1993).

Another study to confirm cross cultural generalizability of the CSI has done in Korea which was the first study in this context in Korea, with a sample of 310 randomly selected college students. They implemented the CSI to young Korean consumers and compared the results with the United States sample of Sproles and Kendall (1986). Out of eight factors, seven factors gave the similar results in both studies, therefore, it was reported as Korean sample approved the generalizability of the CSI (Hafstrom et al., 1992).

There are not many studies about the relationship between CDMSs and food. Specifically, organic food consumption has been examined in just a few studies. One of the first studies done in the literature in organic food context is based on young Indian consumers' purchase intention to organic food. Prakash et al. (2018) examined the OFPI of 527 young Indians by applying the CSI. To be able to do this, they revised the questionnaire on the basis of organic food products. Because the subject, organic food, is relevant to health and lifestyle, they also added two more factors which are Health Consciousness and Environmental Consciousness. After applying the modified version of CSI, the outcomes were very useful to understand the consumers OFPI on since there was a clear significance on different profiles of consumer styles. As it was supposed to be relevant, Health Consciousness and Environmental Consciousness were reported as very effective on consumer decisions while purchasing organic food products. Additionally, five of CDMSs were found to be influential, which are Perfectionism, Brand Consciousness, Hedonistic Shopping Consciousness, Price Consciousness and Brand-Loyalty Consciousness (Prakash et al., 2018).

CHAPTER III

RESEARCH METHODOLOGY

3.1. General Overview

In this thesis, a quantitative research methodology based on primary data collected with a survey is adopted. The survey addresses ten hypothetical dimensions to measure CDMSs and their effect on OFPI based on the literature.

As an instrument, a well-structured questionnaire covering CSI is applied to collect the data to determine the CDMSs, which are Perfectionism, Brand Consciousness, Novelty Fashion Consciousness, Hedonistic Consciousness, Price Consciousness, Impulsiveness, Confusion by Over Choice and Brand Loyal Consciousness.

Furthermore, due to the scope of this study, two more styles, Environmental Consciousness (Koenig-Lewis, Palmer, Dermody, & Urbye, 2014), and Health Consciousness (Tarkiainen & Sundqvist, 2005), are added to the questionnaire with the help of a study in the similar context (Prakash et al., 2018). Additionally, four statements to determine OFPI from Prakash's study adapted in the scope of Covid-19.

The original questionnaire is transformed in the context of organic food and translated into Turkish language. A pre-assessment of the survey was conducted on a small group and their suggestions on the survey items have been collected. After some revisions, the final version of the questionnaire is distributed by using convenience sampling method and 369 people participated. The collected data is analyzed with SPSS (v. 25).

3.2. The Instrument – Development of Questionnaire

In the first section of the survey, questions about socio-demographic factors were directed to the participants. These factors included gender, age, education level and

income level. Besides, the participants were asked to express if they ever have had a healthy nutrition counseling.

In the second section of this survey study, a well-structured questionnaire designed by Sproles and Kendall (1986) is transformed in the context of organic food and used to collect the data to determine the CDMSs on organic food, which are the main objective of the study.

The original questionnaire is based on CSI including 40 statements, which evaluate the cognitive and emotional characteristics of a consumer's decision-making process. Those statements represent the eight profiles of consumer styles. Due to the scope of this study, 2 more styles which are Environmental Consciousness and Health Consciousness, are added to the questionnaire with nine statements with the help of a study in the similar context (Prakash et al., 2018). Additionally, four statements to determine OFPI from Prakash's study adapted in the scope of Covid-19. Each statement is measured by five Likert scale ranging from 'strongly disagree' to 'strongly agree'.

3.3. The Sample

The original questionnaire is transformed in the context of organic food and translated into the Turkish language since the sample of the study consist of Turkish people older than 18 years old. As the sample is so large and it is impossible to reach all the consumers, the questionnaire is prepared with Google Forms and distributed online to the sample who are selected by convenience sampling method. Convenience sampling technique is the method that researchers, specifically working in the field of social sciences, try to collect data from the easiest and most accessible subjects until they reach the sample size they need for their study (Şahin & Gürbüz, 2018). For this study, 369 people participated. Because there are not any missing values as all the statements were labeled *required in the online questionnaire, no data is eliminated.

3.4. Analysis

For the validity and reliability of the study, factor analysis is conducted. To test the hypotheses; T-Test, Analysis of Variance (ANOVA) and Regression Analysis is performed.

The constructs referring to different CDMSs and OFPI were coded as follows to facilitate the analysis:

- PC: Perfectionism/high Quality Consciousness
- BC: Brand Consciousness
- NC: Novelty-Fashion Consciousness
- VMC: Price/Value for Money Consciousness
- COC: Confusion by Over Choice
- EC: Environmental Consciousness
- HC: Health Consciousness
- RHC: Recreational/Hedonic Shopping Consciousness
- IC: Impulsiveness
- BLC: Brand Loyal Consciousness
- OFPI: Organic Food Purchase Intention

3.4.1. Validity

Factor analysis is the general name of multivariate analyzes that aim to obtain fewer factors consistent with each other and to discover the pattern of structures formed by the items by bringing together a large number of interrelated items. Basically, factor analysis examines whether a large number of variables at the center of the research can actually be expressed with a few basic variables/factors (Kim & Mueller, 1978; Şahin & Gürbüz, 2018). There are two different types of factor analysis: Exploratory Factor Analysis and Confirmatory Factor Analysis. Exploratory factor analysis is generally used in the early stages of scale development studies to examine which factors constitute the observed variables such as Sproles and Kendall (1986)'s analysis of CSI to reveal CDMSs as factors. Confirmatory factor analysis, on the other hand, is mostly preferred to confirm the accuracy of a scale or model that has been developed,

used in previous research, or has a theoretical basis. In other words, in confirmatory factor analysis, it is tried to understand whether the concepts in question are verified by the data, and whether the assumed relations in the theoretical universe exist in the data set obtained as a result of empirical observation (Şahin & Gürbüz, 2018). In this study, although the instrument, CSI, has already been confirmed in the literature, new styles are added to the questionnaire and the existing statements are transformed in the concept of organic food. Thus, exploratory factor analysis is conducted to analyze the collected data. A value of 0.45 or higher is considered a good value in determining the valid factor loadings (Büyüköztürk, 2020). Thus, all factor loading values higher than 0.45 are accepted and the items with lower values are eliminated.

The factor analysis revealed that Novelty-Fashion Consciousness with 5 statements and Price/Value for Money Consciousness with 5 statements did not fit the factors of PCS and found to be meaningless for the given data sample, they are eliminated. In addition, four statements are excluded from the study because they are not found to be significant which are:

- PC7: I shop quickly, buying the first product or brand I find that seems good enough.
- HC4: I prefer organic food products because they are healthier.
- IC1: I should plan my shopping more carefully than I do.
- RHC5: I make shopping trips fast.

Finally, eight factors/styles out of 10 and OFPI are determined as significant (Table 3.1). (Extraction Method: Principle Component Analysis. Rotation Method: Varimax with Kaiser Normalization)

Table 3.1. The Results of Exploratory Factor Analysis

Rotated Component Matrix									
	Component								
	1	2	3	4	5	6	7	8	9
PC4	.849								
PC3	.824								
PC2	.758								
PC5	.687								
PC1	.650								
PC6	.579								
PC8	.460								
BC6		.720							
BC2		.710							
BC3		.696							
BC5		.696							
BC4		.676							
BC1		.656							
COC1			.792						
COC2			.781						
COC4			.748						
COC3			.720						
OFPI2				.786					
OFPI1				.723					
OFPI3				.581					
OFPI4				.568					
EC3					.801				
EC4					.799				
EC2					.628				
EC1					.502				
HC3						.699			
HC5						.685			
HC2						.675			
HC1						.595			
RHC3							.695		
RHC1							.669		
RHC2							.641		
RHC4							.464		
IC5								.685	
IC2								.645	
IC4								.641	
IC3								.576	
BLC2									.823
BLC1									.617
BLC3									.604
BLC4									.455

3.4.2. Reliability

The Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) test shows whether the data structure formed by the variables obtained from a particular sample is sufficient for factor analysis. A KMO value of 0.60 and above indicates that the sample will be sufficient for factor analysis. Barlett's sphericity test, on the other hand, tests whether the relations in the correlation matrix are sufficient to perform factor analysis. The significance of this test result ($p<0.05$) means that the matrix formed by the relations between the variables is significant for factor analysis and factor analysis can be performed (Şahin & Gürbüz, 2018).

As a result, to test the reliability, KMO and Bartlett' Test was found significant (KMO:.826, Sig..000), (Table 3.2).

Table 3.2. KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.826
Bartlett's Test of Sphericity	Approx. Chi-Square	6236.221
	df	820
	Sig.	.000

3.4.3. Normality

To determine if a data set normally distributed in the model and to calculate the probability of a normal distribution of a random variable underlying the dataset, normality test is conducted. In normal or near-normal distributions, the skewness and kurtosis values of the data are usually distributed between +1 and -1, being close to zero. Whether a data is normally distributed or not can be determined in various ways. It is recommended to act with more flexible approaches for social sciences and especially for Likert scales. In this case, the distribution of skewness and kurtosis values between +1.5 and -1.5 can be considered as the data are normally distributed (Şahin & Gürbüz, 2018; Tabachnick, Fidell, & Ullman, 2019).

Table 3.3. Normality Test

	PC	BC	COC	EC	HC	RHC	IC	BLC	OFPI
Skewness	-.139	.188	-.201	-.676	-.578	-.309	.378	-.738	-.119
Kurtosis	-.559	.272	-507	1.169	1.145	.386	.367	1.239	-.134

Further analysis will be done based on this information.

3.4.4. Hypothesis Testing

To test the hypothesis, there are multiple statistical analysis for different kind of variables. The best way to determine which analysis is suitable for the hypothesis is to identify independent and dependent variables initially. The analysis depends when the variables are dependent or independent and also when the variables consist of two or more groups.

3.4.4.1. Independent Sample T Test

By comparing the means of two independent samples for the same variable, it is investigated whether the difference between the means is significant at a certain level of significance (Şahin & Gürbüz, 2018). In this study, gender differences, education level differences and healthy nutrition counseling differences are analyzed with independent sample t-test since gender has two groups as female and male, education level has two groups (other two groups eliminated) as bachelor's degree and master's degree and higher education and healthy nutrition counseling has two groups as yes and no.

3.4.4.2. ANOVA Test

The ANOVA test, known as analysis of variance, is the test used to analyze group means and the operations that depend on them. ANOVA test is conducted to test whether the means of more than two groups are equal to each other. In fact, this test generalizes the t-test for two groups to more than two groups. In the ANOVA test, the independent variables are often called factors. If there is one factor, this analysis is a single factor analysis of variance. The purpose of this analysis is to compare the means of more than two groups for a single factor to test whether there is a difference at a

certain level of significance (Şahin & Gürbüz, 2018). In this study, the effects of socio demographic factors such as age and income level are tested by conducting ANOVA test as these variables have more than two groups.

3.4.4.3. Regression Analysis

Regression analysis refers to the explanation of the relationship between a dependent variable and the independent variable or variables that are thought to have an effect on this dependent variable with a model. In short, it investigates the cause and effect relationship between the variables. If the effect of an independent variable on a simple dependent variable is investigated, simple regression analysis is applied, and if the effect of two or more independent variables on the dependent variable is investigated, multiple regression analysis is applied (Şahin & Gürbüz, 2018). While linear regression analysis is applied when the dependent variable has quantitative characteristics such as proportional scale, the regression analysis used in cases where the dependent variable is categorical is logistic regression analysis (Tabachnick et al., 2019). In this study, the effect of CDMSs on healthy nutrition counseling is analyzed by logistic regression analysis. The effect of CDMSs on OFPI is tested by multiple linear regression analysis.

CHAPTER IV

DATA AND FINDINGS

4.1. Socio-Demographic Factors

First of all, demographic characteristics of the participants are analyzed (Table 4.1). 86.7% and 13.3% of the participants are female and male, respectively. The huge difference between genders of participants is due to the fact that mostly women are more interested in healthy food shopping in families. Plenty of men who shared the questionnaire directed us to their wives instead of participating themselves since the wives are the ones who are responsible for the food shopping and more interested in healthy nutrition.

The biggest group of the participants according to their age is between 25-39 years old with 69.9% and n=258. The second and the third group with 18.5% and 11.1% are 40-65 years old and 18-24 years old, respectively. There are just two participants who are older than 65 years old.

The vast majority of participants (n=352) have a bachelor's degree or higher education. In detail, 59.9% of the sample stated that they have bachelor's degree and 35.5% have master's degree or higher education with the frequency of 221 and 131, respectively. The rest of the participants have high school degree (n=16) and primary school degree (n=1).

Income level of the sample is almost distributed evenly in these two groups; Up to 5000 TL and 5000 TL – 10000 TL, 35.5% and 38.8%, respectively. The number of participants with an income of more than 10000 TL is slightly less which are 12.5% with income level of 10000 TL – 15000 TL and 13.3% with income level of more than 15000 TL.

Finally, while 159 of the participants have had a healthy nutrition counselling, 210 of them stated that they have never had a healthy nutrition counseling from an expert.

All the demographic characteristics of the participants are indicated in the Table 4.1.

Table 4.1. Socio-Demographic Factors

		FREQUENCY	*PERCENT*
Gender			
	Male	49	13.3
	Female	320	86.7
Age			
	18-24	41	11.1
	25-39	258	69.9
	40-65	68	18.5
	65+	2	0.5
Education Level			
	Primary School	1	0.3
	High School	16	4.3
	Bachelor's Degree	221	59.9
	Master's Degree or Higher Education	131	35.5
Income Level			
	Up to 5000 TL	131	35.5
	5000 TL – 10000 TL	143	38.8
	10000 TL – 15000 TL	46	12.5
	15000 TL +	49	13.3
Healthy Nutrition Counseling			
	Yes	159	43.1

	No	210	56.9

4.2. Organic Food Purchase Intention During Covid-19

To determine the purchase intention on organic food during Covid-19, four statements are tested with Five-Likert scale. The mean of four statements in Table 4.2 shows that OFPI of participants has been increased during Covid-19 as the mean is 2.0793, which is higher than the median (2) of Likert scale.

Table 4.2. Descriptive Statistics for OFPI

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
OFPI1	369	0	4	2.30	1.036
OFPI2	369	0	4	1.76	1.105
OFPI3	369	0	4	1.95	1.081
OFPI4	369	0	4	2.31	1.069
OFPI	369	.00	4.00	2.0793	.82153
Valid N (listwise)	369				

4.3. Hypotheses Testing

4.3.1. Effect of Socio-Demographic Factors on CDMSs

Hypothesis 1: CDMSs in organic food category are affected by socio-demographic factors.

Hypothesis 1a: Gender has a significant influence on CDMSs in organic food category.

As gender has two independent groups t-test is conducted to test the hypothesis (Table 4.3). First, we checked Levene's test for equality of variances as if it is not significant, bigger than 0.05, it is understood that the data has homogeneity, if equal variances is assumed. In this case, the first raw data in the table, which shows the significance of two-tailed t-test for equality of means under equal variances assumption is evaluated. On the other hand, if Levene's test for equality of variances are significant, smaller than 0.05, they indicate that equal variance is not assumed for the data. So, in this case, the t-test values are shown in the second raw in the table. Finally, if the significance

value is bigger than .05, gender has no effect on CDMSs and if the significance value is smaller than .05, the data differs significantly for the gender differences. As it is illustrated in the table, there are three CDMSs, which differ by gender. Perfectionism/High Quality Consciousness, Brand Consciousness and Recreational/Hedonic Shopping Consciousness differ significantly among female and male consumers. While Perfectionism/High Quality Consciousness and Recreational/ Hedonic Shopping Consciousness is higher for female consumers, Brand Loyal Consciousness is higher for male consumers.

As a result of these statistics, we failed to reject hypothesis 1a.

Table 4.3. T-Test for Gender CDMSs

Independent Samples Test							
		Levene's Test for Equality of Variances		t-test for Equality of Means			
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference
PC	Equal variances assumed	5.625	.018	2.420	367	.016	.25662
	Equal variances not assumed			2.137	58.934	.037	.25662
BC	Equal variances assumed	2.035	.155	-3.286	367	.001	-.31704
	Equal variances not assumed			-2.846	58.351	.006	-.31704
COC	Equal variances assumed	.238	.626	-.607	367	.544	-.07577
	Equal variances not assumed			-.607	63.550	.546	-.07577
EC	Equal variances assumed	1.844	.175	1.505	367	.133	.15129
	Equal variances not assumed			1.315	58.603	.194	.15129
HC	Equal variances assumed	.774	.380	1.343	367	.180	.12133
	Equal variances not assumed			1.466	68.073	.147	.12133
RHC	Equal variances assumed	1.655	.199	4.683	367	.000	.45783
	Equal variances not assumed			3.913	57.331	.000	.45783
IC	Equal variances assumed	4.053	.045	-1.885	367	.060	-.17996
	Equal variances not assumed			-1.684	59.293	.098	-.17996
BLC	Equal variances assumed	.226	.635	.805	367	.422	.06489
	Equal variances not assumed			.761	61.294	.450	.06489

Hypothesis 1b: Age has a significant influence on CDMSs in organic food category.

As age category has more than two independent groups ANOVA is conducted to test the hypothesis (Table 4.4).

World Health Organization (WHO) defines age groups as 0-15 years old is children, 15-64 years old is young and 65-79 years old is middle-aged and 80+ years old is elderly. In addition, WHO defines the youth generation is 15-24 years old, thus in this study the youth age group is defined as 18-24 as the age of legal majority is 18. The second group is determined as 25-39 years old who are the middle group of young people. Finally, the third group is 40-65 years old. Since there are just two participants older than 65 years old, they are excluded from this analysis.

The results (Table 4.4) show that only Perfectionism/High Quality Consciousness is significantly affected by age groups with a significance of .008. The other CDMSs do not significantly differ by age. To determine which age group caused this difference, post hoc tests are applied (Table 4.5). The participants who are in between 40-65 years old defined themselves as more perfectionist, high quality conscious consumers compared to 18-24 years old and 25-39 years old participants.

As a result of these statistics, we failed to reject hypothesis 1b.

Table 4.4. ANOVA for Age / CDMSs

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
PC	Between Groups	4.627	2	2.313	4.901	.008
	Within Groups	171.803	364	.472		
	Total	176.430	366			
BC	Between Groups	1.147	2	.574	1.414	.244
	Within Groups	147.623	364	.406		
	Total	148.770	366			
COC	Between Groups	1.075	2	.537	.810	.446
	Within Groups	241.505	364	.663		
	Total	242.580	366			
EC	Between Groups	.438	2	.219	.505	.604
	Within Groups	158.023	364	.434		
	Total	158.461	366			
HC	Between Groups	.112	2	.056	.160	.852
	Within Groups	127.727	364	.351		
	Total	127.839	366			
RHC	Between Groups	1.039	2	.519	1.206	.301
	Within Groups	156.832	364	.431		
	Total	157.871	366			
IC	Between Groups	.378	2	.189	.481	.618
	Within Groups	142.794	364	.392		
	Total	143.172	366			
BLC	Between Groups	.577	2	.289	1.078	.342
	Within Groups	97.512	364	.268		
	Total	98.089	366			

Table 4.5. Post Hoc Tests for Age CDMSs

Multiple Comparisons

Dependent Variable		(I) Age	(J) Age	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
PC	Tukey HSD	18-24	25-39	-.07744	.11550	.781	-.3493	.1944
			40-65	-.34910*	.13584	.028	-.6688	-.0294
		25-39	18-24	.07744	.11550	.781	-.1944	.3493
			40-65	-.27166*	.09365	.011	-.4921	-.0513
		40-65	18-24	.34910*	.13584	.028	.0294	.6688
			25-39	.27166*	.09365	.011	.0513	.4921
	Scheffe	18-24	25-39	-.07744	.11550	.799	-.3613	.2065
			40-65	-.34910*	.13584	.038	-.6830	-.0152
		25-39	18-24	.07744	.11550	.799	-.2065	.3613
			40-65	-.27166*	.09365	.016	-.5018	-.0415
		40-65	18-24	.34910*	.13584	.038	.0152	.6830
			25-39	.27166*	.09365	.016	.0415	.5018

Hypothesis 1c: Education level has a significant influence on CDMSs in organic food category.

In descriptive analysis, it is mentioned that primary school category has only one participant and high school category has 16 participants which are very less than bachelor's degree category and master's degree and higher education category. To get more accurate results those two categories excluded from this analysis. Afterwards, as two categories left to evaluate, t-test is conducted to test the hypothesis.

According to the results in Table 4.6, education level differs significantly for Brand Consciousness. Participants who have master's degree or higher education are more brand conscious consumers. As a result of these statistics, we failed to reject hypothesis 1c.

Table 4.6. T-Test for Education Level / CDMSs

Independent Samples Test								
		Levene's Test for Equality of Variances		t-test for Equality of Means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	
PC	Equal variances assumed	5.500	.020	.837	350	.403	.06480	
	Equal variances not assumed			.872	307.704	.384	.06480	
BC	Equal variances assumed	5.740	.017	-2.232	350	.026	-.15657	
	Equal variances not assumed			-2.100	224.653	.037	-.15657	
COC	Equal variances assumed	2.579	.109	1.675	350	.095	.15052	
	Equal variances not assumed			1.622	246.477	.106	.15052	
EC	Equal variances assumed	.927	.336	1.487	350	.138	.10614	
	Equal variances not assumed			1.428	239.844	.155	.10614	
HC	Equal variances assumed	.547	.460	.326	350	.745	.02136	
	Equal variances not assumed			.317	249.404	.752	.02136	
RHC	Equal variances assumed	.556	.456	1.094	350	.275	.07947	
	Equal variances not assumed			1.110	285.823	.268	.07947	
IC	Equal variances assumed	.252	.616	-.215	350	.830	-.01483	
	Equal variances not assumed			-.218	284.076	.828	-.01483	
BLC	Equal variances assumed	.057	.812	.269	350	.788	.01578	
	Equal variances not assumed			.267	267.706	.789	.01578	

Hypothesis 1d: Income level has a significant influence on CDMSs in organic food category.

As income level category has more than two independent groups ANOVA is conducted to test the hypothesis (Table 4.7). When the significance values are examined, it is clear that only Confusion by Over Choice style differs significantly through income level. To determine which income level group caused this difference, post hoc tests are applied (Table 4.8). The participants who have income up to 5000TL are determined as more confused by over choice consumers compared to participants who have income between 10000TL – 15000TL. The participants with the income level of 5000TL – 10000TL determined as more confused by over choice consumer compared to 10000TL – 15000TL.

As a result of these statistics, we failed to reject hypothesis 1d.

Table 4.7. ANOVA for Income Level / CDMSs

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
PC	Between Groups	1.287	3	.429	.886	.449
	Within Groups	176.835	365	.484		
	Total	178.122	368			
BC	Between Groups	1.095	3	.365	.898	.443
	Within Groups	148.356	365	.406		
	Total	149.451	368			
COC	Between Groups	8.608	3	2.869	4.471	.004
	Within Groups	234.255	365	.642		
	Total	242.863	368			
EC	Between Groups	.428	3	.143	.330	.804
	Within Groups	158.075	365	.433		
	Total	158.503	368			
HC	Between Groups	2.368	3	.789	2.295	.077
	Within Groups	125.548	365	.344		
	Total	127.916	368			
RHC	Between Groups	.640	3	.213	.495	.686
	Within Groups	157.331	365	.431		
	Total	157.971	368			
IC	Between Groups	1.953	3	.651	1.679	.171
	Within Groups	141.507	365	.388		
	Total	143.460	368			
BLC	Between Groups	1.591	3	.530	1.936	.123
	Within Groups	100.001	365	.274		
	Total	101.592	368			

Table 4.8. Post Hoc Tests for Income Level / CDMSs

Multiple Comparisons

Dependent Variable		(I) IncomeLevel	(J) IncomeLevel	Mean Difference	Std. Error	Sig.	95% Confidence Lower	95% Confidence Upper
COC	Tukey HSD	Up to 5000 TL	5000 TL -	.08532	.09689	.815	-.1647	.3354
			10000 TL -	.49768*	.13730	.002	.1433	.8520
			15000 TL+	.08685	.13415	.916	-.2594	.4331
		5000 TL - 10000 TL	Up to 5000 TL	-.08532	.09689	.815	-.3354	.1647
			10000 TL -	.41236*	.13579	.014	.0619	.7628
			15000 TL+	.00153	.13261	1.000	-.3407	.3438
		10000 TL - 15000 TL	Up to 5000 TL	-.49768*	.13730	.002	-.8520	-.1433
			5000 TL -	-.41236*	.13579	.014	-.7628	-.0619
			15000 TL+	-.41083	.16447	.062	-.8353	.0137
		15000 TL+	Up to 5000 TL	-.08685	.13415	.916	-.4331	.2594
			5000 TL -	-.00153	.13261	1.000	-.3438	.3407
			10000 TL -	.41083	.16447	.062	-.0137	.8353
	Scheffe	Up to 5000 TL	5000 TL -	.08532	.09689	.855	-.1868	.3574
			10000 TL -	.49768*	.13730	.005	.1121	.8833
			15000 TL+	.08685	.13415	.936	-.2899	.4636
		5000 TL - 10000 TL	Up to 5000 TL	-.08532	.09689	.855	-.3574	.1868
			10000 TL -	.41236*	.13579	.028	.0310	.7937
			15000 TL+	.00153	.13261	1.000	-.3709	.3740
		10000 TL - 15000 TL	Up to 5000 TL	-.49768*	.13730	.005	-.8833	-.1121
			5000 TL -	-.41236*	.13579	.028	-.7937	-.0310
			15000 TL+	-.41083	.16447	.102	-.8727	.0511
		15000 TL+	Up to 5000 TL	-.08685	.13415	.936	-.4636	.2899
			5000 TL -	-.00153	.13261	1.000	-.3740	.3709
			10000 TL -	.41083	.16447	.102	-.0511	.8727

4.3.2. Effect of Socio-Demographic Factors on Healthy Nutrition Counseling

Hypothesis 2: Having a healthy nutrition counseling is affected by socio-demographic factors.

Hypothesis 2a: Gender has a significant influence on having a healthy nutrition counseling.

Since gender has two independent groups, t-test is the appropriate analysis for the effect of gender on healthy nutrition counseling. Table 4.9 shows the Levene's test for equality of variances as not significant, which means equal variances assumed for the data. Furthermore, t-test for equality of means is also not significant. There are no significant differences on having healthy nutrition counseling between genders.

As a result of this statistics, we reject hypothesis 2a.

Table 4.9. T-Test for Gender / Healthy Nutrition Counseling

Independent Samples Test							
		Levene's Test for Equality of Variances		t-test for Equality of Means			
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference
HNC	Equal variances assumed	.005	.943	-.035	367	.972	-.003
	Equal variances not assumed			-.035	63.341	.972	-.003

Hypothesis 2b: Age has a significant influence on having a healthy nutrition counseling.

As age category has more than two independent groups ANOVA is conducted to test the hypothesis (Table 4.10). When the significance value is examined (0.037), it is clear that there is significant difference on having healthy nutrition counseling between age groups. To determine which age group caused this difference, Post-hoc tests are

applied (Table 4.11). The participants who are in between 18-24 years old stated that they had healthy nutrition counseling more compared to the participants who are in the 25-39 age group.

As a result of these statistics, we failed to reject hypothesis 2b.

Table 4.10. ANOVA for Age / Healthy Nutrition Counseling

ANOVA

Healthy Nutrition Counseling

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.622	2	.811	3.340	.037
Within Groups	88.357	364	.243		
Total	89.978	366			

Table 4.11. Post Hoc Tests for Age / Healthy Nutrition Counseling

Multiple Comparisons

Dependent Variable: Healthy Nutrition Counseling

	(I) Age	(J) Age	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Tukey HSD	18-24	25-39	.213*	.083	.028	.02	.41
		40-65	.197	.097	.108	-.03	.43
	25-39	18-24	-.213*	.083	.028	-.41	-.02
		40-65	-.016	.067	.968	-.17	.14
	40-65	18-24	-.197	.097	.108	-.43	.03
		25-39	.016	.067	.968	-.14	.17
Scheffe	18-24	25-39	.213*	.083	.037	.01	.42
		40-65	.197	.097	.130	-.04	.44
	25-39	18-24	-.213*	.083	.037	-.42	-.01
		40-65	-.016	.067	.971	-.18	.15
	40-65	18-24	-.197	.097	.130	-.44	.04
		25-39	.016	.067	.971	-.15	.18

Hypothesis 2c: Education level has a significant influence on having a healthy nutrition counseling.

Since education level has two independent groups, as primary school and high school groups are excluded from the analysis since they have very few frequency, t-test is the appropriate analysis for the effect of education level on healthy nutrition counseling. Table 4.12 shows that the Levene's test for equality of variances is not significant as is it bigger than .005, which means equal variances assumed for the data. Furthermore, t-test for equality of means is also not significant with the level of .609. There are no significant differences on having healthy nutrition counseling between education levels.

As a result of this statistics, we reject hypothesis 2c.

Table 4.12. T-Test for Education / Healthy Nutrition Counseling

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means			
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference
HNC	Equal variances assumed	.935	.334	.511	350	.609	.028
	Equal variances not assumed			.510	270.783	.611	.028

Hypothesis 2d: Income level has a significant influence on having a healthy nutrition counseling.

Because the income level category has four independent variables, ANOVA is conducted to test the hypothesis. The significance value for between groups of ANOVA is .000 (Table 4.13), which indicates that there is a significant difference for having healthy nutrition counseling between income levels. To determine which income level category caused this difference, post-hoc tests are applied (Table 4.14).

The results illustrate that the participants who have up to 5000 TL are higher for having healthy nutrition counseling compared to those who have 10000 TL – 15000 TL and 15000TL+. Additionally, the participants with 10000 TL – 15000 TL income are higher than the participants with the income level of 15000 TL+.

As a result of this statistics, we failed to reject hypothesis 2d.

Table 4.13. ANOVA for Income Level / Healthy Nutrition Counseling

ANOVA

Healthy Nutrition Counseling

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4.756	3	1.585	6.750	.000
Within Groups	85.732	365	.235		
Total	90.488	368			

Table 4.14. Post Hoc Tests for Income Level / Healthy Nutrition Counseling

Multiple Comparisons

Dependent Variable: Healthy Nutrition Counseling

	(I) Income Level	(J) Income Level	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound
Tukey HSD	Up to 5000 TL	5000 TL – 10000 TL	.092	.059	.398	-.06
		10000 TL - 15000 TL	.266*	.083	.008	.05
		15000 TL+	.312*	.081	.001	.10
	5000 TL - 10000 TL	Up to 5000 TL	-.092	.059	.398	-.24
		10000 TL - 15000 TL	.174	.082	.148	-.04
		15000 TL+	.220*	.080	.032	.01
	10000 TL - 15000 TL	Up to 5000 TL	-.266*	.083	.008	-.48
		5000 TL - 10000 TL	-.174	.082	.148	-.39
		15000 TL+	.046	.099	.968	-.21
	15000 TL+	Up to 5000 TL	-.312*	.081	.001	-.52
		5000 TL - 10000 TL	-.220*	.080	.032	-.43
		10000 TL - 15000 TL	-.046	.099	.968	-.30
Scheffe	Up to 5000 TL	5000 TL - 10000 TL	.092	.059	.483	-.07
		10000 TL - 15000 TL	.266*	.083	.017	.03
		15000 TL+	.312*	.081	.002	.08
	5000 TL - 10000 TL	Up to 5000 TL	-.092	.059	.483	-.26
		10000 TL - 15000 TL	.174	.082	.214	-.06
		15000 TL+	.220	.080	.059	-.01
	10000 TL - 15000 TL	Up to 5000 TL	-.266*	.083	.017	-.50
		5000 TL - 10000 TL	-.174	.082	.214	-.41
		15000 TL+	.046	.099	.976	-.23
	15000 TL+	Up to 5000 TL	-.312*	.081	.002	-.54
		5000 TL - 10000 TL	-.220	.080	.059	-.45
		10000 TL - 15000 TL	-.046	.099	.976	-.33

4.3.3. Effect of CDMSs on Healthy Nutrition Counseling

Hypothesis 3: Having a healthy nutrition counseling is affected by CDMSs.

Whether the individuals participating in the study received healthy nutrition counseling is determined by asking yes/no question, which is a binary dependent variable. Hence, logistic regression analysis is conducted to test the hypothesis. The results of the test are shown in Table 4.15. The significance values are lower than 0.05 for only Environmental Consciousness (.027) and Brand Loyal Consciousness (.048). Other six CDMSs are not found significant. Thus, the results of the hypotheses testing are as follows:

Hypothesis 3a: Perfectionism/High Quality Consciousness significantly influences having a healthy nutrition counseling.

- We reject the hypothesis.

Hypothesis 3b: Brand Consciousness significantly influences having a healthy nutrition counseling.

- We reject the hypothesis.

Hypothesis 3c: Novelty Consciousness significantly influences having a healthy nutrition counseling.

- Analysis of this hypothesis was not performed because this factor did not appear as significant.

Hypothesis 3d: Recreational/Hedonistic Shopping Consciousness significantly influences having a healthy nutrition counseling.

- We reject the hypothesis.

Hypothesis 3e: Price Consciousness significantly influences having a healthy nutrition counseling.

- Analysis of this hypothesis was not performed because this factor did not appear as significant.

Hypothesis 3f: Impulsiveness significantly influences having a healthy nutrition counseling.

- We reject the hypothesis.

Hypothesis 3g: Confusion by Over Choice significantly influences having a healthy nutrition counseling.

- We reject the hypothesis.

Hypothesis 3h: Habitual/Brand Loyal Consciousness significantly influences having a healthy nutrition counseling.

- We failed to reject the hypothesis.

Hypothesis 3i: Health Consciousness significantly influences having a healthy nutrition counseling.

- We reject the hypothesis.

Hypothesis 3j: Environmental Consciousness significantly influences having a healthy nutrition counseling.

- We failed to reject the hypothesis.

Table 4.15. Logistic Regression Analysis for Healthy Nutrition Counseling / CDMSs

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
								Lower	Upper
Step 1[a]	PC	-.084	.196	.183	1	.669	.919	.626	1.351
	BC	-.188	.183	1.061	1	.303	.828	.579	1.185
	COC	-.179	.140	1.629	1	.202	.836	.635	1.101
	EC	.431	.195	4.865	1	.027	1.538	1.049	2.255
	HC	-.230	.235	.954	1	.329	.795	.501	1.261
	RHC	-.107	.187	.325	1	.569	.899	.623	1.297
	IC	-.200	.198	1.023	1	.312	.818	.555	1.207
	BLC	-.438	.222	3.899	1	.048	.645	.418	.997
	Constant	2.245	.996	5.085	1	.024	9.440		

4.3.4. Effect of Healthy Nutrition Counseling on Organic Food Purchase Intention during Covid-19

Hypothesis 4: Having a healthy nutrition counseling has a significant effect on OFPI during Covid-19.

Healthy nutrition counseling as the independent variable has two groups as YES and NO. To test the effect of healthy nutrition counseling on OFPI, t-test is conducted. Since the data is assumed as equal variances (sig .327), t-test for equality of means found to be significant with a significant level of .028 (Table 4.16). The results demonstrated that having a healthy nutrition counseling has a significant positive effect on OFPI. As a result of this statistics, we failed to reject the hypothesis.

Table 4.16. T-Test for Healthy Nutrition Counseling / OFPI

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means			
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference
OFPI	Equal variances assumed	.961	.327	2.206	367	.028	.18949
	Equal variances not assumed			2.231	353.378	.026	.18949

4.3.5. Effect of CDMSs on Organic Food Purchase Intention during Covid-19

Hypothesis 5: OFPI during Covid-19 is affected by CDMSs.

To determine the effect of CDMSs on OFPI, linear regression analysis is used as it is the proper analysis to test the effect of one or more variables on another explanatory variable.

The results of the analysis (Table 4.17) approves that all CDMSs have a significant effect on OFPI during Covid-19 except one; Habitual/Brand Loyal Consciousness (sig .055). Thus, the results of the hypotheses testing are as follows:

Hypothesis 5a: Perfectionism/High Quality Consciousness significantly influences OFPI during Covid-19.

- We failed to reject the hypothesis.

Hypothesis 5b: Brand Consciousness significantly influences OFPI during Covid-19.

- We failed to reject the hypothesis.
-

Hypothesis 5c: Novelty Consciousness significantly influences OFPI during Covid-19.

- Analysis of this hypothesis was not performed because this factor did not appear as significant.

Hypothesis 5d: Recreational/Hedonistic Shopping Consciousness significantly influences OFPI during Covid-19.

- We failed to reject the hypothesis.

Hypothesis 5e: Price Consciousness significantly influences OFPI during Covid-19.

- Analysis of this hypothesis was not performed because this factor did not appear as significant.

Hypothesis 5f: Impulsiveness significantly influences OFPI.

- We failed to reject the hypothesis.

Hypothesis 5g: Confusion by Over Choice significantly influences OFPI.

- We failed to reject the hypothesis.

Hypothesis 5h: Habitual/Brand Loyal Consciousness significantly influences OFPI.

- We reject the hypothesis.

Hypothesis 5i: Health Consciousness significantly influences OFPI.

- We failed to reject the hypothesis.

Hypothesis 5j: Environmental Consciousness significantly influences OFPI.

- We failed to reject the hypothesis.

Table 4.17. Multiple Regression Analysis for OFPI / CDMSs

Coefficients[a]								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	-.608	.316		-1.922	.055	-1.230	.014
	PC	.218	.065	.184	3.337	.001	.089	.346
	BC	.134	.061	.104	2.198	.029	.014	.255
	COC	.245	.046	.242	5.270	.000	.153	.336
	EC	.134	.064	.107	2.086	.038	.008	.260
	HC	.178	.078	.128	2.289	.023	.025	.332
	RHC	.247	.062	.197	3.991	.000	.125	.369
	IC	.223	.066	.170	3.391	.001	.094	.353
	BLC	-.137	.071	-.088	-1.928	.055	-.277	.003

CHAPTER V

DISCUSSION

This study aimed to discover CDMSs in the context of organic food purchase for Turkish consumers and to find out whether CDMSs affect OFPI during Covid-19. In order to observe these effects more clearly, demographic factors were examined. In addition, due to the relevance of the subject, it was questioned whether the individuals participating in the study received healthy nutrition counseling and the effect of this on the intention to buy organic food was examined. In order to find answers to these questions, a structured questionnaire was prepared and filled by 369 participants. Five basic hypotheses with sub-hypotheses were developed to reach the aim of this study and these hypotheses were tested by several statistical analysis. Evaluation of the results obtained with the analyses will be made in this section.

5.1. Organic Food Purchase Intention During Covid-19

As it is explained in the literature review, people's habits have changed with the huge effect of Covid-19 in variety of areas of our lives. While some people tend to unhealthy food choices because of the stress factors of Covid-19 such as anxiety, boredom and smart working conditions, others tend to healthy food choices because of health concerns. Additionally, the trends on some new habits have especially increased after Covid-19, such as having a strong immune system, doing exercise, preventing contamination from animal foods in order to decrease the risk factors that lead to vulnerability to Covid-19, such as obesity, cancer, chronic kidney disease, diabetes, heart conditions etc. Thus, organic food became more popular since it represents the healthy food with its physical and biological features. In this study, we examined people's OFPI during Covid-19 with four statements by 5-likert scale adopted from Prakash et. al. (2018):

- OFPI1: I have changed my eating habits in a healthier way after Covid-19.

- OFPI2: My purchase intention on organic food products has increased after Covid-19.
- OFPI3: I am willing to pay more on organic food products in the future.
- OFPI4: I believe that organic foods will help to protect from Covid-19.

The factor analysis results (Table 3.1) showed that all statements in this group formed a construct, which represents OFPI. When we evaluate the mean of all statements (Table 4.2), it is clear that the sample indicated an increased intention to purchase organic food during Covid-19. It is appropriate to conclude that people have the belief of organic food as being healthy and protective against Covid-19. We can say that this tendency is due to the increased health awareness and concerns with the pandemic period.

5.2. CDMSs on Organic Food

Identifying CDMSs is mostly done by CSI instrument developed by Sproles and Kendall (1986) and its modified versions in the literature (Bauer, Sauer, & Becker, 2006; Fan & Xiao, 1998; Lysonski & Durvasula, 2013). In this study, CSI instrument was adapted in the context of organic food. Also, in addition to the eight styles in the inventory, two more styles, Health Consciousness and Environmental Consciousness, were added due to its relevance to the subject. However, after conducting factor analysis, it was decided to exclude two styles because of their insignificant values, which are Novelty-Fashion Consciousness and Price/Value for Money Consciousness. The reason for such results may be that these two styles did not make sense for the analyzed sample since the statements of these two styles could not be gathered under a common factor. Finally, six factors of the original CSI were found to be applicable to Turkish consumers in the content of organic food. Other two factors added to the CSI were also found as significant influencing factors. As a result, an eight-factor model of CSI has been confirmed for the sample and tested in the hypothesis.

- Factor 1 (PC) represents the consumers who are looking for the best quality for organic food. They are very sensitive to get the perfect product; thus, they spent

more time and energy on choosing the best product to satisfy themselves. Therefore, they are called perfectionistic, high quality conscious consumers.

- Factor 2 (BC) represents the consumers who believe that price equals quality. They mostly prefer to buy more expensive organic food products and well-known brands. The best-selling advertised brands and products or organic food are also very attractive for them. They are called brand conscious consumers.
- Factor 3 (COC) represents the consumers who get confused when they have too many options. When they have excessive information about organic food, they have difficulty deciding which product to choose while shopping. They are called confused from over choice consumers.
- Factor 4 (EC) represents the consumers who are sensitive about the environment. These people strive to prevent damage to the environment and even to improve it. They prefer environmentally friendly products while shopping. They are called environmental conscious consumers.
- Factor 5 (HC) represents the consumers who attach great importance to health and define themselves as people with high health awareness. They prioritize health awareness while doing shopping. They are called health conscious consumers.
- Factor 6 (RHC) represents the consumers who shop to enjoy. They are seeking for the hedonic benefit of shopping. Thus, they are called recreational, hedonistic shopping conscious consumers.
- Factor 7 (IC) represents the consumers who are careless and impulsive while doing shopping. They go for shopping without doing any plan or thinking about the quality of shopping. They are called impulsive consumers.
- Factor 8 (BLC) represents the consumers who are stick to the brands and products on their shopping. They are very sensitive about staying loyal to their brands. They are called habitual, brand loyal consumers.

5.3. The Effects of Socio-Demographic Factors on CDMSs

The effects of socio-demographic factors such as gender, age, education level and income level on CDMSs in organic food purchase were tested. Results showed that CDMSs differ significantly for gender, age, education level and income level.

The results showed us that female's and male's perspective on organic food purchase behavior are significantly altered for three styles: Perfectionism/High Quality Consciousness, Brand Consciousness and Recreational/Hedonic Shopping Consciousness. The effect of gender differences on CDMSs has been examined in different areas (Mitchell & Walsh, 2004; Shim, 1996; Solka, Jackson, & Lee, 2011). Although different results have been obtained, different CDMSs on different issues vary according to gender, the common feature of all of them, including our study, is that they show that the gender factor has a significant effect on CDMSs.

When we look at whether age groups make a difference on styles (Table 4.4), we see that only one factor makes a difference in age groups: Perfectionism/High Quality Consciousness. When we examine in more detail (Table 4.5), we see that this change is explained by the superiority of the 40-65 age group to the other age groups, and we can conclude that this factor is more effective in the 40-65 age group. We can explain this difference with the increase in the sense of Perfectionism as the age progresses. It can be said that the expectations of the 40-65 age group from the product they will buy have increased for our study group.

Another socio-demographic factor, education level, was found to be significant for only Brand Consciousness. Other CDMSs were found to be unaffected by education level. The fact that the education levels evaluated for this analysis in this study were bachelor's degree and master's degree or higher education, may have caused these results. Since the difference in education levels is not very wide, there may not be a difference in majority of styles.

Finally, income level was examined whether it has an impact on CDMSs. The results showed that only one of all styles was affected by income level, Confusion by Over Choice (Table 4.7). It is clear that as income decreases, Confusion by Over Choice increases. This may have resulted from people with low incomes trying to evaluate different options more and trying to choose according to their budgets, thus they get more confused when they have more options to evaluate.

5.4. Healthy Nutrition Counseling

One of the most important factors that distinguishes this study from other similar studies is to evaluate healthy nutrition counseling. It is very important to have knowledge about healthy nutrition in the context of organic food. The most effective way to reach this information is to get support from experts on the subject. In this study, it was examined whether CDMSs have an effect on having healthy nutrition counseling. In addition, OFPI of the participants who received and did not receive healthy nutrition counseling were evaluated.

The effects of socio-demographic factors on having healthy nutrition counseling were analyzed initially. It was found that gender and education level have no effect on having healthy nutrition counseling. On the other hand, age and income level factors showed significant differences within their categories. This difference was due to the following difference in age groups; it was determined that the 18-24 age group received more healthy nutrition counseling compared to the 25-39 age group. According to this result, it can be said that young people are more enthusiastic about getting healthy nutrition counseling. When the income levels of the participants were evaluated, an unexpected result emerged. Low-income individuals seem to have received more nutrition counseling compared to middle-income individuals, and middle-income individuals seem to have received more nutrition counseling compared to high-income individuals. The conclusion to be drawn from this is that low income level is not a reason not to get nutritional counseling. On the contrary, the results show that the low-income group showed more interest in getting nutrition counseling. The reason why the high-income group receives less counseling may be that they do not want to allocate a budget or do not have time or interest in this issue.

The results of the effects of CDMSs on healthy nutrition counseling (Table 4.15) showed that only two styles had an impact on having healthy nutrition counseling: Environmental Consciousness and Brand Loyal Consciousness. While Environmental Consciousness was affective in a positive way, Brand Loyal Consciousness was found to be negatively effective. With this information, the following comment can be made. Environmentally conscious consumers are also interested in healthy nutrition and prefer counseling on this matter more than other styles. On the other hand, as

consumers' loyalty to the brand increases, their tendency to get healthy nutrition counseling decreases. This may be because these people are mostly set in stone for their purchase behavior, so they may prefer to stay away from the ideas that will change their shopping habits.

Having healthy nutrition counseling was found to be positively effective on OFPI (Table 4.16). From this result, we can deduce that people who receive nutritional counseling are more inclined to buy organic food. In this case, we can say that people's perspectives on organic food are positively affected by healthy nutrition counseling. Therefore, it can be considered that people are directed to receive nutritional counseling as an indirect method to increase their organic food purchases.

5.5. The Effects of CDMSs on Organic Food Purchase Intention

The results (Table 4.17) reported that all CDMSs have a positive significant effect on OFPI except one style that is Habitual/Brand Loyal Consciousness. This might be because of the fact that brand loyal customers continue to use conventional products instead of trying new brands and products may prevent them from experiencing organic foods that have recently become widespread in the market and are launched with different brands. Other seven styles affect the OFPI positively, which are Perfectionism/High-Quality Consciousness, Brand Consciousness, Recreational/Hedonistic Shopping Consciousness, Impulsiveness, Confusion from Over Choice, Health Consciousness and Environmental Consciousness.

CHAPTER VI

CONCLUSION

Organic food is known for its characteristics of being healthy with its nutritional features and being environmentally friendly with its production processes. With the understanding of the importance of organic food and the increase in its production in the last decade, especially during Covid-19, the attitudes of consumers to organic food has gained importance. In this study, CDMSs were profiled to measure consumers' OFPI. Furthermore, the effects of CDMSs on OFPI during Covid-19 were examined. In addition to all these, the factor of healthy nutrition counseling, which is thought to be effective in organic food, was examined in terms of both CDMSs and OFPI.

At the beginning of the study, it was thought that, besides the original CDMSs determined by Sproles and Kendall (1986), Health Consciousness and Environmental Consciousness would have an impact on OFPI during Covid-19. We see that this idea was supported by the results of the analysis.

The marketing professionals in organic food sector should focus on CDMSs since the results in this study which is also supported by other studies in similar context (Ceylan & Alagöz, 2020; Prakash et al., 2018) show that CDMSs influence significantly the tendency to buy organic food.

Furthermore, having healthy nutrition counseling also significantly effective on organic food purchase behavior during the pandemic. Thus, it can be recommended for the individuals to get nutrition counseling to increase their organic food purchases.

Based on the results on our sample, it can be said that people with high environmental awareness tend to receive nutritional counseling. Because of the analyzes made, we have seen that receiving nutrition counseling has a positive effect on the intention to purchase organic food during Covid-19. Considering these findings, when people are

supported to receive nutritional counseling through studies addressing environmental awareness, their intention to purchase organic food indirectly can be carried to a higher position with a synergistic effect. Accordingly, marketing campaign on organic food can be designed such that environmental awareness can be a focal theme.

This study supports the validity of the CSI to identify CDMSs in the concept of organic food for Turkish people. In addition, CDMSs have been shown to have an effect on OFPI. On the other hand, having healthy nutrition counseling was found to be significant to affect organic food purchase behavior. This information not only contributes to the literature, but also provides guidance for manufacturers, sellers and marketing professionals working in the field.

Besides to the efficient results of the study, there are also some limitations. The study focused on CDMSs and their effect on OFPI. However, in the study, the organic food purchasing levels of the participants were not measured. In future studies, purchasing intention and purchasing behavior can be compared and the factors affecting this can be examined.

In addition, a survey was conducted considering that individuals knew the term organic food. In future studies, measuring people's knowledge of organic food as preliminary data may allow more effective results to be obtained.

Finally, in this study, individuals were asked whether they had ever received healthy nutrition counseling to measure its effect on OFPI. In order to measure the effect of this factor more clearly, a two-stage study can be carried out, measuring the CDMSs and OFPI before receiving counseling, and then re-determining and comparing their styles and purchase intention after one or a few sessions of healthy nutrition counseling are given to the people.

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APPENDIXES

APPENDIX A. QUESTIONNAIRE (English Version)

- This questionnaire form was prepared within the scope of the master's thesis to determine consumer decision-making styles regarding the intention to purchase organic food during the Covid-19. The information to be obtained will be used purely for scientific purposes and the answers will be kept completely confidential. It is of great importance for the scientific validity and reliability of the research that you answer the questions in the survey sincerely and without skipping any questions. Thank you for taking the time to contribute to my research. Zeynep Yeni Erol / Ibn Haldun University /

1. Gender
    - Female
    - Male

2. Age
    - 18-24
    - 25-39
    - 40-65
    - 65+

3. Education Level
    - Primary School
    - High School
    - Bachelor’s Degree
    - Master’s Degree or Higher Education

4. Income Level
    - Up to 5000TL
    - 5000TL – 10000TL
    - 10000TL – 15000TL

- 15000TL +

5. Have you ever had healthy nutrition counseling from an expert?
   - Yes
   - No

Consumer Decision Making Styles

- Please answer the following questions in line with your behavior when purchasing organic food.
- Likert Scale: Strongly Disagree (0), Disagree (1), Neither Agree Nor Disagree (3), Agree (4), Strongly Agree (5)

	0	1	2	3	4
6. Getting very good quality is very important to me.					
7. When it comes to purchasing organic food products, I try to get the very best or perfect choice.					
8. In general, I usually try to buy the best overall quality.					
9. I make special effort to choose the very best quality organic food products.					
10. I really don't give my organic food purchases much thought or care.					
11. My standards and expectations for products I buy are very high.					
12. I shop quickly, buying the first product or brand I find that seems good enough.					
13. A product doesn't have to be perfect, or the best, to satisfy me.					
14. The well-known national brands are best for me.					
15. The more expensive brands are usually my choices.					
16. The higher the price of a product, the better its quality.					
17. Nice department and specialty stores offer me the best products.					
18. I prefer buying the best-selling brands.					

19. The most advertised brands are usually very good choices.					
20. I usually buy the latest available organic food.					
21. I keep my kitchen up-to-date with the organic food products.					
22. Fashionable, attractive styling is very important to me.					
23. To get variety, I shop at different stores and choose different brands.					
24. It's fun to buy something new and exciting.					
25. Shopping is not a pleasant activity to me.					
26. Going shopping is one of the enjoyable activities of my life.					
27. Organic food shopping wastes my time.					
28. I enjoy shopping just for the fun of it.					
29. I make organic food shopping trips fast.					
30. I buy organic food products as much as possible at sale prices.					
31. The lower price products are usually my choice.					
32. I look carefully to find the best value for the money.					
33. I find organic food products expensive.					
34. The price-benefit balance is very important to me when shopping for organic food.					
35. I should plan my shopping more carefully than I do.					
36. I am impulsive when purchasing organic food products.					
37. Often, I make careless purchases I later wish I had not.					
38. I take the time to shop carefully for best buys.					
39. I carefully watch how much I spend on organic food products.					
40. There are so many brands to choose from that often I feel confused.					
41. Sometimes it's hard to choose which stores to shop.					
42. The more I learn about organic food products, the harder it seems to choose the best.					
43. All the information I get on different products confuses me.					
44. I have favorite brands I buy over and over.					
45. Once I find a product or brand I like, I stick with it.					

46. I go to the same stores each time I shop for organic food products.					
47. I change brands I buy regularly.					
48. The balance of nature is very delicate and can be easily upset.					
49. I have switched products for ecological reasons.					
50. When I have a choice between two equal products, I purchase the one less harmful to other people and the environment.					
51. I care about the sensitive approach of the brand whose products I buy to environmental problems.					
52. I choose food carefully to ensure better health.					
53. I consider myself as health-conscious consumer.					
54. I think often about health-related issues.					
55. I prefer organic food products because they are healthier.					
56. It is very important to me that the food I buy is healthy.					
57. I have changed my eating habits in a healthier way after Covid-19.					
58. My purchase intention on organic food products has increased after Covid-19.					
59. I am willing to pay more on organic food products in the future.					
60. I believe that organic foods will help to protect from Covid-19.					

APPENDIX B. QUESTIONNAIRE (Turkish Version)

- Bu anket formu yüksek lisans tezi kapsamında, Kovid-19 sürecinde organik gıda satın alma niyetine ilişkin tüketici karar verme stillerini belirlemek üzere hazırlanmıştır. Elde edilecek bilgiler tamamen bilimsel amaçlı kullanılacak olup, cevaplar tamamen gizli tutulacaktır. Ankette yer alan sorulara içtenlikle ve hiçbir soruyu atlamadan yanıt vermeniz, araştırmanın bilimsel geçerliliği ve güvenilirliği açısından büyük önem taşımaktadır. Zaman ayırarak araştırmama gösterdiğiniz değerli katkılardan dolayı teşekkür ederim. Zeynep Yeni Erol / İbn Haldun Üniversitesi

1. Cinsiyet
    - Kadın
    - Erkek

2. Yaş
    - 18-24
    - 25-39
    - 40-65
    - 65 ve üzeri

3. Eğitim Düzeyi
    - İlköğretim
    - Lise
    - Lisans
    - Yüksek Lisans ve üzeri

4. Gelir Düzeyi
    - 5000TL ve altı
    - 5000TL – 10000TL
    - 10000TL – 15000TL
    - 15000TL ve üzeri

5. Daha önce sağlıklı beslenme konusunda bir beslenme uzmanından danışmanlık/destek aldınız mı?
    - Evet
    - Hayır

Tüketici Karar Verme Stilleri

- Lütfen aşağıdaki soruları organik gıda satın alırken gösterdiğiniz davranışlar doğrultusunda cevaplayınız.
- Likert Ölçeği: Kesinlikle Katılmıyorum (0), Katılmıyorum (1), Ne Katılıyorum Ne Katılmıyorum(3), Katılıyorum (4), Kesinlikle Katılıyorum (5)

	0	1	2	3	4
6. Çok kaliteli ürün almak benim için çok önemli.					
7. Organik gıda ürünleri satın alırken en iyi veya mükemmel seçimi yapmaya çalışıyorum.					
8. Genellikle en iyi kalitede organik gıdayı almaya çalışırım.					
9. En kaliteli organik gıda ürünlerini seçmek için özel çaba sarf ederim.					
10. Organik gıda satın alımlarımı pek düşünmüyorum veya önemsemiyorum.					
11. Aldığım organik gıda ürünlerine ilişkin standartlarım ve beklentilerim çok yüksek.					
12. Hızlıca alışveriş yaparım, yeterince iyi bulduğum ilk organik gıda ürününü veya markasını satın alırım.					
13. Bir ürünün beni tatmin etmesi için mükemmel ya da en iyisi olması gerekmez.					
14. Tanınmış ulusal markalar benim için en iyisidir.					
15. Daha pahalı markalar genellikle benim tercihimdir.					
16. Bir organik ürünün fiyatı ne kadar yüksekse kalitesi o kadar iyidir.					
17. Güzel ve özel mağazalar bana en iyi ürünleri sunuyor.					
18. En çok satan markaları satın almayı tercih ederim.					
19. En çok reklamı yapılan markalar genellikle çok iyi seçimlerdir.					

20. Genellikle mevcut en son çıkmış organik yiyecekleri satın alırım.					
21. Mutfağımı organik gıda ürünleriyle güncel tutarım.					
22. Trend ve çekici tasarımlar benim için çok önemlidir.					
23. Çeşitlilik elde etmek için farklı mağazalardan alışveriş yaparım ve farklı markalar seçerim.					
24. Yeni ve heyecan verici bir şey satın almak eğlencelidir.					
25. Organik gıda alışverişi benim için hoş bir aktivite değil.					
26. Organik gıda alışverişine gitmek hayatımın en keyifli aktivitelerinden biridir.					
27. Organik gıda alışverişi yapmak zamanımı boşa harcıyor.					
28. Eğlenmek için alışveriş yapmayı seviyorum.					
29. Organik gıda alışveriş gezilerini hızlı yaparım.					
30. Mümkün olduğunca organik gıda ürünlerini indirimli fiyatlarla satın alırım.					
31. Daha düşük fiyatlı ürünler genellikle benim seçimimdir.					
32. Paranın en iyi karşılığını bulmak için dikkatli alışveriş yaparım.					
33. Organik gıda ürünlerini pahalı buluyorum.					
34. Organik gıda alışverişi yaparken fiyat-fayda dengesi benim için çok önemlidir.					
35. Alışverişi yaptığımdan daha dikkatli planlamalıyım.					
36. Organik gıda ürünleri satın alırken düşünmeden davranıyorum.					
37. Çoğu zaman dikkatsiz alışveriş yapıyorum, daha sonra keşke almasaydım diyorum.					
38. En iyi satın alımlar için dikkatli alışveriş yapmaya zaman ayırıyorum.					
39. Organik gıda ürünlerine ne kadar harcadığıma dikkat ediyorum.					
40. Aralarında seçim yapabileceğim o kadar çok marka var ki çoğu zaman kafam karışır.					
41. Bazen hangi mağazalardan alışveriş yapılacağını seçmek zordur.					
42. Organik gıda ürünleri hakkında ne kadar çok şey öğrenirsem, en iyisini seçmek o kadar zor oluyor.					
43. Farklı ürünler hakkında edindiğim tüm bilgiler kafamı karıştırıyor.					
44. Defalarca satın aldığım favori markalarım var.					

45. Beğendiğim bir ürün veya marka bulduğumda ona bağlı kalıyorum.					
46. Organik gıda ürünleri için her alışveriş yaptığımda aynı mağazalara gidiyorum.					
47. Düzenli olarak satın aldığım markaları değiştiriyorum.					
48. Doğanın dengesi çok hassastır ve kolayca bozulabilir.					
49. Ekolojik nedenlerle satın aldığım ürünleri değiştirdim.					
50. İki eşit ürün arasında seçim yaparken diğer insanlara ve çevreye daha az zararlı olanı satın alırım.					
51. Ürünlerini aldığım markanın çevre sorunlarına hassas yaklaşmasını önemserim.					
52. Daha sağlıklı olması için yiyecekleri özenle seçiyorum.					
53. Kendimi sağlık bilincine sahip bir tüketici olarak görüyorum.					
54. Sık sık sağlıkla ilgili konuları düşünüyorum.					
55. Organik gıda ürünlerini daha sağlıklı olduğu için tercih ediyorum.					
56. Satın aldığım gıdanın sağlıklı olması benim için çok önemlidir.					
57. Kovid-19'dan sonra beslenme alışkanlıklarımı daha sağlıklı olacak şekilde değiştirdim.					
58. Organik gıda satın alma niyetim Kovid-19'dan sonra arttı.					
59. Gelecekte organik gıda ürünlerine daha fazla ödeme yapmaya hazırım.					
60. Organik gıdaların Kovid-19'dan korunmaya yardımcı olacağına inanıyorum.					

APPENDIX C. ETHICS COMMITTEE DECISION

Evrak Tarih ve Sayısı: 28.01.2021-545

T.C.
İBN HALDUN ÜNİVERSİTESİ
Sosyal ve Beşeri Bilimler Bilimsel Araştırma ve Yayın Etiği
Kurulu Başkanlığı

Sayı : E-71395021-020-545
Konu : Zeynep YENİ EROL-Etik Kurul Kararı

İLGİLİ MAKAMA

Kurulumuza başvuran Zeynep YENİ EROL'un "Consumer Decision Making Styles on Organic Food Purchase Intention During Covid-19 / Kovid-19 Sürecinde Organik Gıda Satın Alma Niyetine İlişkin Tüketici Karar Verme Stilleri" isimli projesi; amaç, araştırma türü, veri toplama araçları, süreç ve işlemler, veri analizleri dikkate alınmak suretiyle 21.01.2021 tarihinde değerlendirilerek 2021/01-3 karar numarası ile etik açıdan uygun bulunmuştur.

Bilgilerinizi arz/rica ederim.

Prof. Dr. Ali YEŞİLIRMAK
Başkan

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