

DYNAMICS OF CONSUMER BEHAVIOR AND POLICIES IN  
SUSTAINABLE FOOD SYSTEMS IN TURKEY

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SUSTAINABLE FOOD SYSTEMS IN TURKEY**

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## **ABSTRACT**

### **DYNAMICS OF CONSUMER BEHAVIOR AND POLICIES IN SUSTAINABLE FOOD SYSTEMS IN TURKEY**

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This thesis examined causes and results of consumer behaviors, which determine the dynamics of consumption in sustainable food systems and analyzed the effectiveness of public policies on food consumption in Turkey. In this context, the structure of sustainable food systems, factors affecting food consumers' behaviors and preferences and public policies and policy implications towards food consumers in Turkey are examined. In addition, semi-structured in-depth interviews were conducted with a purposively chosen group of 13 people (7 mothers, 6 fathers) married between the ages 25-40, who have high education and high income. In the study, it is found that public policies towards food are implied in different dimensions and individuals do not have sufficient information on policy implications in Turkey. In addition, some suggestions were made considering the need of creating policies suitable for different consumer needs and correcting the deficiencies in existing policies.

**Keywords:** Sustainable Food Systems, Food Choices, Food Consumption, Food Policies

## ÖZ

### TÜRKİYE’DE SÜRDÜRÜLEBİLİR GIDA SİSTEMLERİNDE TÜKETİCİ DAVRANIŞI DİNAMİKLERİ VE POLİTİKALAR

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Bu tezde sürdürülebilir gıda sistemlerinde tüketim dinamiklerini belirleyen tüketici davranışları sebep ve sonuçlarıyla incelendi ve Türkiye’de gıda konusunda tüketime yönelik kamu politikalarının ne ölçüde amacına uygun olduğu analiz edildi. Bu doğrultuda sürdürülebilir gıda sistemlerinin yapısı, gıda tüketicisi davranış ve tercihlerini etkileyen faktörler konusundaki mevcut literatür ile gıda tüketicisine yönelik yapılan farklı kamu politikaları ile Türkiye’deki uygulamalar incelendi. Bununla birlikte, eğitim ve gelir düzeyi yüksek, evli, çocuklu, 25-40 yaş arasındaki 13 kişiyle (7 anne, 6 baba) yarı yapılandırılmış derinlemesine mülakatlar gerçekleştirildi. Çalışmada, Türkiye’de gıdaya yönelik kamu politikalarının farklı boyutlarda uygulandığı ve kişilerin uygulamalar konusundaki bilgisinin yeterli olmadığı tespit edildi. Ayrıca farklı ihtiyaçlara sahip tüketici beklentilerine uygun politika oluşturmak konusuna önem verilmesi ve politikalara olan güvenin yeniden inşa edilmesi için var olan eksikliklerin giderilmesi gerektiği düşünülerek bazı önerilerde bulunuldu.

**Anahtar Kelimeler:** Sürdürülebilir Gıda Sistemleri, Gıda Tercihleri, Gıda Tüketimi, Gıda Politikaları

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## LIST OF ABBREVIATIONS

ARCH	European Agricultural Research Towards Greater Impact on Global Challenges
CGIAR	Consultative Group for International Agricultural Research
CFS	Committee on World Food Security
CIAA	The Confederation of the Food and Drink Industry of the European Union
CIAT	International Center for Tropical Agriculture
EIU	Economist Intelligence Unit
EU	European Union
FAO	Food and Agriculture Organization
HLPE	High Level Panel of Experts on Food Security and Nutrition
OECD	Organisation for Economic Co-operation and Development
OHCHR	Office of the United Nations High Commissioner for Human Rights
R&D	Research and Development
TSE	Turkish Standards Institute
TMO	Turkish Grain Board
TUBITAK	The Scientific and Technological Research Council of Turkey
UK	United Kingdom
UN	United Nations
UNICEF	United Nations International Children's Emergency Fund
WHO	World Health Organization

## **CHAPTER 1**

### **INTRODUCTION**

The modern food system has emerged gradually over the past five centuries. This process is the global expansion of the capitalist mode of production, which we can summarize by the domination of private property in the land and other basic production tools, the transition from self-sufficient agricultural structures to production for the market, and the generalization of commodity relations. It is a history that we need to examine carefully to understand our present day as it is a period that covers and spreads the processes of industrialization, urbanization and globalization that are dominated by the spread of these five century commodities worldwide, the dissolution of feudal structures, the liquidation of the peasantry and the formation of the industrial proletariat (Koç, 2013). Although this period includes features such as diversity in food, diversification of price and market, financialization of the food system, big food companies, it is called corporate/environmental food regime (Friedmann, 2005) due to the discussions in both demand and supply side, such as sustainable agriculture, consumer health and reduction of negative effects on the environment. The impact of public policies and consumption demands play a key role in food and agriculture policies, which have historically been transformed and currently dominated by global institutions. This situation reveals the necessity of examining the food systems within this framework.

The food system is a multi-actor concept that includes people's relationships with nature and other people and the social structures, institutions and processes that cover them. This is a concept that covers all the process and relations of the food and does not ignore the whole system and the network of relationships while

looking at the parts that make up this system. This topic needs further thinking and analysis since food consumption is becoming one of the significant dimensions of health and social policies.

My interest in this area of study emerged when I wrote my expert thesis for the Ministry of Agriculture and Forestry which was titled “Sustainable Food Systems in Food Security” (Haspolat, 2015). In this thesis I analysed food systems within the framework of food security and explained the contents and subtitles of these concepts in detail. In my expert thesis while I did a review of the concepts in the topic of food security and analysed studies related to hunger and food rights-oriented, I ended up with a conclusion that the effectiveness of activities and policies regarding sustainable food systems in Turkey should be examined. Actually I realized the need for a more effective road map on sustainable food systems in Turkey should be developed.

This conclusion led me to continue my master’s thesis study with examining how food systems contribute to human nutrition and how they are applied in the society. Food systems have a very complex structure which can be examined from many different perspectives and also there are limited resources on the subject. So I decided to study food systems in Turkey with a specific focus on sustainability. Hence, in my thesis I mainly studied the consumption dynamics in sustainable food systems, food preferences of consumers and the policies implemented in this area. Consumption is one of the most important aspect of the thesis because food systems actually depend on food consumption choices and preferences of the people. What the consumers demand, their preferences and priorities are important in terms of shaping the food systems. On the other hand, public policies on food also affect people and have a key role for the benefit of the society and the formation of healthy generations.

On this basis the aim of this study is to examine causes and results of consumer behaviors, which determine the dynamics of consumption in the sustainable food systems and analyze the effectiveness of public policies on food consumption in Turkey. Examining consumer behavior within the food systems, rather than addressing it alone, becomes necessary considering the interrelation of parts in the system. The purpose of the structure we call the food systems is people who are major consumers of food and have the basic rights to live a healthy life.

The research questions of this thesis study are as follows;

- What are the factors affecting consumers' food choices and consumption dynamics within the scope of sustainable food systems?
- Are the public policies consistent with food consumers' behaviors and expectations in Turkey?
- What kind of social policy proposals can be presented for the consumer in the field of food?

The corona virus pandemic, which currently affects all areas of life, is expected to make a difference both in terms of food and in terms of consumption preferences. It is stated that the source of the coronavirus is a seafood market in China (Khan & Fahad 2020). After the pandemic, the tendency to consume safer and organic food may increase. This attitude will also trigger the prominence of sustainable agriculture. Therefore, these trends can be taken into account in shaping food consumption and food safety policies. International trade conditions adversely affected by the epidemic may lead countries to evaluate their self-sufficiency policies in food production. The current situation makes it important to analyse existing food policies and food consumption preferences and a need for re-designing the existing food system.

With increasing economic and social welfare, societies have started to show more sensitive attitudes about food. Accordingly, important developments are taking place every day in the understanding of correct and balanced consumption and the number of conscious consumers is increasing. In such a consumerist society, revealing the level of knowledge and attitudes of the society demonstrates the importance of the subject. The fact that a lot of information could be obtained from different sources about the content of food and its effects on health caused more interest in the subject. In this environment, people have become more sensitive in choosing food for themselves and their families to protect their health. Topics such as natural foods, organic foods, nutrient content, environmental awareness in food consumption and food controls have gained importance. In this framework, studies involving food consumption and consumers are considered necessary to analyze the policies appropriate for the subject. Research on the subject of consumers is generally thought to determine the direction of manufacturers and marketers. However, especially when it comes to food and food consumption, the content, purpose and effectiveness of public policies become important. Because in this area, the public sanction power for the manufacturer is high. In addition to fully identifying the information and attitudes of consumers, analyzing the degree to which these are in line with the practices and similar studies will help improve the system. In addition, social policy practices in the field of food are mainly examined through lack of access to food and related social benefits (Devereux et al., 2012; Hidrobo et al., 2014; Li et al., 2016; Fiese et al., 2011). However, reports and studies on food safety and food systems show that the availability and access to food is not sufficient to raise healthy communities and generations (FAO, 2008; FAO, 2013; Pinstруп-Andersen, 2011; Armar-Klemesu, 2000). Smelser & Baltes (2001) mentioned, social policy encompasses governmental and legislative arrangements to benefit a segment of the community or the entire community in need. In this respect, public policies including the quality of food, ensuring its

safety and making decisions and informing about healthy eating have become one of the social policy areas.

As in all areas, it is necessary to follow the international situation in the food field and to interpret good examples, with the priority of country conditions, for more successful applications. This is the reason why consumption is covered in sustainable food systems in this study. It is argued that every part of food security, especially food safety, occurs in the world and that the right way for this is a systematic perspective. Especially in food, the whole structure needs to be explained as there are parts of the value chain that affect each other to an advanced degree. Once the overall structure has been shown, consumer policies and the evaluation of consumer views will make the issue more clear.

The study of consumer choices in sustainable food systems and the social, economic and cultural factors that constitute it, is necessary to measure the effectiveness of public policies as well as of food production and to show how they should be directed. The realization of safe food supply, the content of food, nutrition and at the same time, the consumer's rights to affect the system as well as the policies applied in the education of the consumer about preventing food waste are important. In this context, the interaction of young consumer preferences to be determined by the policies and field studies that exist in the system to ensure the sustainability of the food system will be examined and meaningful results will be obtained.

In the UN Report (2014) on agricultural development, food safety and nutrition, it is stated that a world without poverty, hunger and malnutrition is not possible without efficient and sound agriculture and food systems, including sustainable natural resource management and reduction of food losses and waste in the value chain. The same report mentions that a systematic framework includes all related aspects of production, processing, distribution, consumption of a food system

(environment, people, inputs, processes, infrastructure and institutions) as well as the outputs of these activities, including socioeconomic and environmental outcomes and sustainability. Also, it is stated that the food system provides food safety and nutrition for everyone and especially for future generations on an economic, social and environmental basis. The sources of malnutrition are diverse and surrounded by the economic, social, political, cultural and physical environment. In addition to the economic dimension, directing especially consumption habits and creating awareness will produce positive outcomes in nutrition (Kearney, 2010).

Food environments have been identified as an important predictor of people's well-being and, as a result, have a significant impact on overall public health and well-being. It has also been widely recognized that food environments have a significant impact on dietary order, health status, individual knowledge, preferences, and behaviors (Story et al., 2008). Public policies on food have an important role to play in creating a good food environment and it is important to examine the factors that affect consumer behavior. Consumers' trust in food sector actors and public authorities is also important for an efficient food environment and a food system. Trust in the food sector is important not only for the food industry and the agricultural sector but also for governments. Trust is not just based on risk assessment of food, communication and transparency are also essential (Frewer & Van Trijp 2006). A good consumer is a conscious individual who thinks, questions, reacts when necessary and seeks his/her rights (Gülmez, 2006). The emphasis was placed on different points in the conscious consumer definitions made in the literature. The most important point about this is the fact that the consumer cannot be conscious without having awareness. Conscious consumers analyze the information they have and act accordingly. Conscious consumers aim to follow the necessary information and innovations by keeping their interest alive on this path (Ferman, 1993). In addition to awareness, factors such as age, income, education level, gender and maternity

which affect consumer's food preferences have been examined in many studies. The conditions of modern life have changed diets, individuals are becoming increasingly vulnerable to the risk of uncertainty, the food choices of the generations have changed, and the environmental impacts of production have created a framework for sustainability in consumption. There are obvious differences in dietary patterns and nutrient intake and there is an inverse relationship between age and consumption of modern and unhealthy foods (Giuli et al., 2012). The risk of getting sick increases as you get older, leading to healthier diets to avoid or reduce disease symptoms (Shatenstein, 2008). However, there is also studies stating that the age difference in food choices is not very effective. A review of Paquette's (2005) articles shows that there is no great difference in age groups and in the importance of fruit and vegetable intake. Some studies also confirm the relationship between improved economic situation and reducing malnutrition (Vereecken et al., 2005; Smith & Haddad, 2015). Missagia et al. (2012) observed in his study that men and women pay equal attention to the health factor, while men's healthy eating habits are lower than women's. Dayılar (2018) found that women are more informed consumers in food preferences than men about food safety and related quality systems. Nutrition transition researches show the impact of lifestyle changes on nutrition, primarily in urban lifestyle (Popkin, 1999). An association between education and food habits is also analyzed with the findings of higher level of education have a healthier eating habit (Moreira & Padrão, 2004). Consumer behavior, interventions in the food environment known as “choice architecture” (Hollands et al., 2013) or incentives to give consumers more information can be changed through “agentic” interventions such as educational programs or nutrition guides. Such interventions supporting healthy eating have been shown to reduce social inequality in nutrition in low-income countries (Mayén et al., 2016). Accordingly, many studies have been included in order to be a starting point in the areas where public policy examples for food consumers in different countries are needed. Nutrition education, labelling, consumer rights regulations towards

food environments are some of the examples of these policies. In accordance with these studies, food consumption was examined in terms of consumers and policies and Turkey's public policies was evaluated according to consumer behavior.

Observing that both in the world and our country food sensitivity and interest in organic products increased, in addition to differentiated food preferences and the goal of healthy nutrition, it was decided to study the social dimension of food. Nutrition is related not only to the preferences but also to the structure of the choices offered to the people. Accordingly, a consumer-oriented study is envisaged with the idea that the policies applied on food serve the welfare and benefit of the society. A literature review was conducted by examining academic articles, theses and international institutions' reports related to the topic. In accordance with the information obtained, the content of the field study was determined, questionnaire was prepared, and interviews were conducted.

In the introduction part of the study, aim and significance of the study are stated.

In the second part of the study, literature and implications on the subject are examined. The level of awareness and awareness that affect consumer behavior, the trust discourse that theoretically explains people's food choice are examined. In addition to the nutrition transition and its factors, the cause and effect of food consumption, the effects of age, generation, gender, education and income on food consumption sustainability and food preferences were analyzed. Public policies on food are explained with examples and recommendations on what can be done. In the chapter 2.2, current situation, the competent institutions and policies of Turkey on the subject are detailed. The stages of food systems as well as concepts such as food security, food safety and food environment are explained at the end of this part. Since the concepts are intertwined, the relationship between them is examined in detail.

In the third part, the details of the research and data analysis process are explained. In the fourth part, the answers of the interviewed consumers were analyzed and their interaction with public policies was discussed. The discussions were evaluated in the topics of food safety and consumer awareness, food choices, nutrition transition, sustainability, consumers' expectations and trust in policies and their role in the food system, which are covered by the consumption dynamics in food systems.

Finally, in the conclusion and policy recommendations chapter, an overall assessment is provided, and possible policy recommendations were presented.

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.1. Discourses of Consumer Behavior**

##### **2.1.1. Conscious Consumer and Consumer Awareness**

The concept of conscious consumer is an individual who prioritizes the basic needs of a product or service, considers that the goods or services to be purchased are of high quality, safe, high standard, healthy and eco-friendly, and that he/she is the subject of shopping, not the object of the consumer and knows his/her rights as a consumer can be defined as. In addition, it can be defined as an open-minded individual who owns and defends his rights, does not make wrong choices by being influenced by media and advertising, avoids waste and luxury consumption, acts ethically, is aware of the effects of consumption behavior on society and the environment, and supports all kinds of changes for the development of the society. Also, one of the biggest obstacles for consumers to act consciously is the lack of information (Buğday & Babaoğul, 2016).

A good consumer is a conscious individual who thinks, questions, reacts when necessary and seeks his right (Gülmez, 2006). The emphasis was placed on different points in the conscious consumer definitions made in the literature. The most important point about this is the fact that the consumer cannot be conscious without having awareness. Conscious consumers analyze what they know and act in this direction. Conscious consumers aim to follow the necessary information and innovations by keeping their interest alive on this path (Ferman, 1993).

Ibarra and Revilla (2014) defined consumer awareness as the simplest way of consumers know their rights. However, studies in this area show that most consumers are not aware of the rights afforded to them. These rights granted to consumers will only become meaningful if they are known and used (Hayta, 2007).

When consumers are aware of their rights and responsibilities, they force them to produce products that are more suitable for them (Makanyeza, 2015). The concept of liability mentioned here is by Singh et al. (2016), the product's expiration date, price, quality, weight, etc. it has been expressed as controlling properties. The consumer needs to embrace their rights and responsibilities together in order to be fully aware. It will be very difficult for the consumer to protect their rights in the long term if they do not embrace their responsibilities (Mohan & Suganthi, 2013).

Consumer behavior reflects choices by consumers, household or individual, about which foods to buy, store, prepare and consume, and the sharing of food within the household. Consumer behavior is influenced by personal preferences determined by taste, culture and other factors. However, consumer behavior is also shaped by the current food environment. Collective changes in consumer behavior pave the way to more sustainable food systems, thereby ensuring food safety and healthy eating (Glanz et al., 1998; Sobal & Bisogni, 2009). Consumer behavior is based on a wide variety of internal and external stimuli and constraints that occur in certain cultural, institutional, technological, and economic settings, largely shaped by actions carried out by firms and governments (Gorgitano & Sodano, 2014).

Furthermore, the processes through which food is purchased, prepared and consumed differ not only according to cultures and countries, but also among individuals. Many consumers can avoid nutritious foods because they do not

know how to cook. Although they are much less nutritious than homemade meals, foods that do not require preparation or take very little time to prepare may be preferred in such cases. Cost is an important issue in this regard, and some consumers tend to buy low-budget foods for economic reasons. Consumers who do not have economic concerns can evaluate the health, effects on nature and animal wellbeing when choosing food. (HLPE, 2017).

The issue of health may have a primary role in the decisions of some consumers. Health awareness is a concept that reflects one's vigilance for one's own health. Health concerns and awareness can affect food choices, with health-conscious consumers sometimes choosing foods on the basis of health or weight awareness rather than the flavors they prefer for themselves (Bakke et al., 2016). In this respect, they prefer natural, unprocessed foods (Jay-Russel, 2010). With the rise of foodborne illnesses, many consumers felt worried about their health and insecure about food products. (Bektas et al., 2011). However, awareness may not always influence the related consumption behavior (Zandstra et al., 2016).

Consumers' relationship with food is shaped not only by individual decisions but also by social environment and culture. Consumer behavior, interventions in the food environment known as “choice architecture” (Hollands et al., 2013) or incentives to give consumers more information can be changed through “agentic” interventions such as educational programs or nutrition guides. Such interventions supporting healthy diets are shown to minimize social inequality in nutrition in low-income countries (Mayén et al., 2016).

Awareness and conscious consumer research in food consumers in Turkey is carried out in different ways. Albayrak (2000) conducted a survey with 324 consumers in Ankara under the title measuring the level of awareness of consumers about “Food packaging and labelling information in Ankara, a study on food buying locations and packaging preferences”. He stated that consumers

prefer the most supermarkets when shopping and that when buying food, consumers pay the most attention to the factors of price, quality and ability to choose. The study also highlighted that the factors that consumers pay most attention to when purchasing food items are the product's expiration date, production date and product packaging.

In the study of Şanlıer and Şeren (2005), 98 women, 87 men, a total of 185 people who are shopping in different districts of Ankara's supermarkets are analysed with a survey with the consumers' food purchasing assessment on their awareness. 39.4% consumers label information on food labels and they read it sometimes, 60,0% always read the production date on the package was determined. The proportion of those who always pay attention to the clean and undamaged cans while shopping was 68.1%, the proportion of those who always check whether the frozen foods are solid and the foods in the fridge are cold is 42.8% and the proportion of those who always buy meat products at the end of shopping was 24.3%.

Bal et al. (2006) conducted a survey on 248 consumers face to face in the Central District of Tokat province under the title "Examination of consumer awareness about food safety (case of Tokat province)". They found that 48.39% of consumers did not know what food safety was and had not heard it, while 51.61% had heard the concept before. 79.69% of those who heard described the concept of food safety as correct, while 20.31% heard the concept of food safety but did not know what it meant or was wrong. 74.60% of consumers consider the foods they consume to be health-risk or too risky. 89.92% of consumers stated that they could overpay for safe food. A significant 95.56% of consumers reported that there were disruptions in the supervision of food production and that the food producing firms were not adequately supervised.

İbiş and Engin (2006) conducted a survey with 389 students studying at Istanbul University under the title "Determining the role of social media in the choice of

food and beverage management of students”. In this study, it was concluded that the students used social media tools extensively to learn about products and services, to follow campaigns, and that they cared about comments on products and services in social media environments in preference to food and beverage businesses.

Topuzoğlu et al. (2007) conducted a survey with the title “Consumers level of knowledge about food products and their attitudes towards health risks” using face-to-face interview technique with 167 people who applied to a health care facility in Ümraniye, Istanbul. In this survey, only 18.6% of the participants knew the institutions that oversee food products, the most important attitude of the participants (92.8%) pay attention to the robustness of the product packaging of food, 83.2% of the participants have an attitude to return if the food product is defective. It was found that 52.1% of participants read label information, did not pay attention to expiration dates (39.6%) and did not pay attention to the mineral substances contained in the product (28.8%). As a result, it has been revealed that there is a gap in the selection of products suitable for healthy eating, the label is not generally examined when purchasing food, and the inspection and control institutions should be known and accessible to consumers.

Conscious consumers have a power on designing the food system with their demands. Because they have the information about the details of food production process, effects on health etc. This chapter is important to highlight their role.

### **2.1.2. Sustainable Consumer and Sustainable Food Consumer**

Sustainable consumption is a decision-making process that covers consumers' individual needs such as flavor, price, easy-to-obtain and health benefits, as well as consumers' social responsibilities (Vermeir & Verbeke, 2008). However,

sustainable consumption is a process that ensures a high-quality life, efficient use of natural resources and effective satisfaction of people's needs.

Consumption is a socially multiform event (Gonzalez et al., 2009), and the bulk of the concerns that underlie conscious consumption are related to socially conscious behavior. There are also studies that define the concept of sustainable consumption as socially conscious consumption. Socially conscious consumption is a form of consumption that takes into account the personal needs of consumers as well as social goals (Hayta, 2007). Consumers, with the social consciousness they have, are aware of consumption options and purchasing, product use, etc. They become involved in a social group by their behavior (Gonzalez et al., 2009).

Singh (2009) found that urban consumers have a higher level of social consciousness than rural consumers in his study to determine the extent of the relationship between the demographics of Indian consumers and the levels of social consciousness. This study revealed an inverse relationship between income and education levels and the level of social consciousness, unlike studies conducted in the field of awareness. Also, it was determined that young people had a higher level of social consciousness than old people.

Sustainable consumption patterns and sustainable product design focuses on options while some other studies at the macro level, create sustainability, sustainable mobility and sustainable food regarding state policies directed to consumption (Seyfang, 2006; Partidario, et al., 2007; Barber, 2007; Okumura & Cai, 2007). These studies on sustainability have two focus points. The first of these points is the relationship between macro and micro sustainability studies. If at the macro level governments care about sustainability and take into account relevant projects, they must also take into account consumer studies that reveal the relationship between sustainable food production and consumption. The

second focus of the macro-and micro-level studies is that all studies related to sustainability and sustainable food consumption are generally carried out in developed countries. The fact that the standard of living in developed countries is higher than in developing countries has led to the opening of this concept for further discussion in developed countries.

In terms of the title of our study, it was determined that the micro-level studies focused more on sustainable consumption behavior and attitudes. (Nansai et al., 2007; Vermeir & Verbeke, 2008; De Boer et al., 2006; Marchand & Walker, 2008; Shrum et al., 1995; Roberts 1996). These studies looked at how consumer interest translates into actual buying habits and behavior; organic and conventional foods, consumer attitudes in the consumption of organic foods, comparison of consumer attitudes in the consumption of organic and non-organic foods. The results of the studies show that consumers care about sustainable foods and perceive organic products better in terms of their taste, quality, safety, health and environmental impact. There is a positive interaction between product quality, environmental sensitivity, health awareness and lifestyle and consumer motivation in consumers' decisions to purchase organic food. Also, consumers' personal and psychological (learning, belief and perception etc.) factors such as their status, knowledge, personal experience and risks are also effective in purchasing organic products. Consumers of organic products are grouped as environmentalists, consumers worried about chemical residues, those who turn to organic products for health reasons, those who care about human values (Netter & Deters, 2011; Basha et al., 2015; Ankomah & Yiridoe, 2006). In addition, as a result of these studies; it was found that consumers developed a positive attitude towards buying organic foods that are compatible with the environment, but the price was the main factor determining the purchase preference and a negative attitude was formed towards such products in terms of appearance, usability and storage (Grunert & Juhl, 1995; Vermeir & Verbeke, 2008). The results of these studies, the positive trend towards such foods and the acquisition of demand at a

young age, will mediate young consumers to carry these habits into their old age as well. In addition, a large proportion of these consumers will become more sensitive not only to sustainable organic product consumption, but also to animal and environmentally friendly food production and consumption, and to ethical behavior, protection of locally produced agricultural products and becoming conscious consumers (Crane, 2001).

Young people have an important role to play in ensuring the sustainability of food systems. Educating young children and young people about food is an effective method. However, there are policies that involve people of all age groups in food system change, which can persuade them for health, ethical or environmental reasons. Young people will quickly accept changes and change their consumption behavior. In this regard, young mothers have an important place in their curiosity about sustainable brands and consumption of sustainable foods. It is important to be aware of the obstacles to consumers making the change and choosing the most beneficial option, and to implement policies towards it (ARCH, 2016).

Sustainable food consumers' preferences have a major role to maintain the sustainability of the food system. Because the sustainability is not the priority of production and processing part of the value chain, it is mostly shaped by sustainable food consumers and the details is essential for this study.

### **2.1.3. Nutrition Transition and Environmental and Urbanization Effects**

"Nutrition transition" refers to changes in the diet with the differentiation of the lifestyle as a result of the demographic transition, urbanization, and economic development of societies (Popkin, 2006). With globalization, urbanization and exchange liberalization, food systems are becoming more interrelated with more complex food value chains. These food systems maintain consumers the

opportunity to minimize seasonal inadequacies throughout the year, increase their food options, and thus change their nutrition choices. However, options are still limited due to the lack of recognition of the rights of some vulnerable groups on the natural resources, including their socio-economic status, land and seeds.

With urbanization and increased incomes, nutrition patterns will also change. By 2030, a population of more than three billion will enter the global middle class, with more than two-thirds of the world's population projected to live in cities by 2050. With this change, energy consumption, processed food consumption, and demand for eating outside the home will also increase (Ranganathan et al., 2016).

Urbanization is anticipated to put a different strain on food systems, with expanded consumption and request for prominent food diversity. Urban demand drives what foods are grown by rural food producers and how these foods are bought, sold, processed, circulated and commercialized. On the supply side, financial development, liberalization and worldwide exchange will change the way food's process to be ready for consumption, making modern markets for rural producers, and so proper planning will be required to succeed. At this point, important duties fall to governments for the appropriate working and planning of food systems (Satterthwaite et al., 2010).

In modern food systems, lifestyles are heavily influenced and changed by urbanization and income growth. Those living in cities are getting to be less subordinate on manual labor and becoming more stationary. One of the demographic changes with urbanization is the increase of female labor force participation. In addition, different infrastructure opportunities are emerging with technological developments (Seto & Ramankutty, 2016). Behavioral change can minimize the downsides of modern food systems, but this has yet to happen even in high-income countries. In cities, high-awareness consumers are more

concerned with their wellbeing and deliberately reducing their utilization of processed food. They make food choices with the goal of healthy aging.

On the other hand, consumer education and labelling are focused on promoting sustainable food consumption. As stated in the relevant title of the study, food waste has become a major problem with urbanization, especially in developed countries. Many types of date labels are designed for retailers not for consumers, stock control. These methods are not effective in consumers who decide not rationally but by their habits. In addition, factors such as flavor, price, habit take precedence over sustainability (LondonDEFRA, 2014). For shifting diets, the reasons and decision-making stages of consumers' food choices need to be determined very well. Because the role of the private sector and global firms in food production is huge, their involvement is essential in terms of guiding the change of diets towards it. In 2000, supermarkets accounted for 70 to 80% of food retail sales in France and the USA. Supermarkets have a growing role in developing countries today, increasing their share of food retailing in East Asia, Latin America, China, South Africa and Central Europe from 5-20 percent in 1980 to 50-60 percent in 2000 (Reardon et. al., 2003).

Studies on nutrition transition show the impact of lifestyle changes on nutrition transition, primarily in urban lifestyle (Popkin, 1999). There are significant differences in dietary patterns and nutrient content, and there is a cross-correlation between age and consumption of modern and unhealthy foods (Giuli et al., 2012). Studies also confirm the relationship between economic status and modern nutrition (Vereecken et al., 2005). Studies show that there is a relationship between education level and eating habits. Accordingly, people with higher education levels have a healthier eating habit (Moreira & Padrão, 2004).

Along with nutrition transition, obesity and its associated risks also increase. Worldwide obesity has more than doubled since 1980. In 2016, more than 650

million adults around the world were obese, according to World Health Organization (WHO) data. The number of obese adults in the world is 13% of the total population. The prevalence of overweight and obesity among children and teenagers between the ages of 5 and 19 has increased from 4% in 1975 to 18% in 2016, making over 340 million teenagers and children overweight or obese worldwide. While the WHO considers obesity to be one of the 10 most risky diseases, among the most important risk factors for obesity are reduction in physical activity and eating habits. Obesity is spreading rapidly, especially in developed and developing countries. An extended United Nations Children's Fund (UNICEF) study investigating factors affecting childhood obesity found that parents' eating habits and nutrition patterns and children's eating behaviors were significantly effective in the formation of obesity (Bilge et al., 2014).

Environmental concerns affect nutrition types. One of the factors causing the increase of environmental problems is the current consumption habits and the constant encouraging of consumption. As a result, natural resources are deteriorating due to excessive and careless use. People who consume the resources have the power to positively or negatively affect the environment as individuals. The behavior of each individual consumer has a positive or negative effect on environmental pollution (Gül & Güven, 2000). The environmentally conscious consumer can be defined as the consumer who understands its own effectiveness against environmental pollution and shows a responsible attitude for all humanity in the purchasing process (Bener & Babaoğul, 2008). Consumers' anxiety about the environment are reflected in their way of life, their values and therefore their purchasing decisions. Consumers who are concerned about the environment use more resources when necessary and prefer ecological and recyclable products to engage in environmental protection activities (Fraj & Martinez, 2006).

Many recent studies have examined the environmental effects of dietary patterns. These reviews have found that dietary patterns that replace animal foods with

plant-based alternatives provide environmental benefits (Joyce et al., 2014; Nelson et al., 2016; Auestad & Fulgoni, 2015). Aleksandrowicz et al. (2016), regarding 62 studies, states that vegan diets led to a decline in greenhouse gas emissions and land use, while vegetarian diets were also associated with a significant decrease in water use. Diets that replace ruminant meat with other alternatives such as fish, chicken and pork also reduce environmental impacts, though not as much as their plant-based alternatives. However, dietary patterns have been shown to reduce health risks, but their effects have not been statistically proven, as have their environmental benefits.

As a result of the need to maintain the natural balance, environmental pollution experienced at the global level today has brought some alternative forms of production to the agenda. Organic farming is an important part of these alternatives.

Organic foods are foodstuffs where artificial and similar fertilizers, preservatives, chemicals, brightening agents and chemical packaging materials are not used in their cultivation and processing. Organic foods include plant and animal foods. Furthermore, soil, air, water pollution and the use of various chemical pesticides or fertilizers to produce serious health problems in humans began to cause the emergence of organic food consumption (Akın et al., 2010). In this context, the concept of organic agriculture can be defined as a controlled and certified form of agricultural production, every stage from production to consumption, without the use of chemical inputs. All stages of this process are carried out according to national and international rules and their compliance with these standards is checked and certified by independent organizations. As a result of this process, consumers are given confidence in organic products (Demiryürek & Bozoğlu, 2007). The concepts of natural food and organic food are often confused and used interchangeably. While organic food is controlled at

every stage of the value chain, it is produced without an inspection that there are no natural food additives.

It is very important that the environmental impacts of agriculture are minimized without compromising the quality of nutrition. Accordingly, interventions in food production, the first phase of the supply chain, have a fundamental role. Biodiversity and protection of local products will increase the resistance to changing weather conditions. In addition, preserving and increasing diversity will increase agricultural productivity in the long run (Fanzo et al., 2017).

When examining sustainable food systems, environmental priorities and their impact on nutrition should be examined. Since living conditions have changed with urbanization, food choices have changed, and public policies have to be determined accordingly. In connection with this change, nutrition transition has been examined since it includes age, generation and income changes.

#### **2.1.4. Trust Discourse on Food Choice**

With modernization, the concept of trust has been examined and this concept has been studied in terms of their influence on food preferences today.

Giddens distinguishes between simple modernization and reflexive modernization. Simple modernization the old type is a modernization that proceeds on a single line. Intellectual modernization, on the contrary, implies the acceptance of the contradictions and limits of the modern order (Giddens & Pierson, 2001). What Giddens is really trying to say with reflexive modernization is that people have ideas about the social world, about themselves, their future and the conditions of life (Esgin, 2005).

The notion of risk cannot be separated from the ideas of probability and uncertainty. The idea of risk appears in the desire to rule, especially in the idea of

dominating the future (Giddens, 2000). In fact, Giddens divided the risk into external risk and manufactured risk. This distinction will help us better understand the concept of risk. External risk is the risk that arises from the outside, from the constants of tradition or nature. These risks are natural-born risks such as floods, hurricanes, epidemics and earthquakes. There is no question of human intervention in such risks. Manufactured risk is created by changes in the human development process, especially by advances in science and technology. Rather, the scope and sources of risk have varied. Manufactured risk is the result of human interference with nature and the conditions of community life (Giddens&Pierson, 2001).

Giddens gives by conceptualizing his ancillary concepts in a different way when describing trust. Trust is fundamentally tied to negativity, not risk. When negative results are encountered, trust always carries with an association of reliability, whether these results are related to the actions of individuals or the functioning of systems. Trust is not the same as a belief in the reliability of a person or system; it is what is derived from that belief. We can also talk about confidence in systems of expertise, but it is not based on belief in the moral integrity of others (goodwill), but on belief in the truthfulness of principles they know nothing about. Trust can therefore be defined as a reliance on the reliability of a person or system, given a particular set of consequences or events. We can define trust as a situation where it avoids or minimizes a particular set of hazards. The safety statement often rests on a balance of trust and acceptable risk (Giddens, 1998).

Giddens states that the nature of modern institutions is deeply tied to the confidence mechanisms in abstract systems, especially the reliance on expert systems. In fact, the individual cannot go outside the abstract systems of modernity (Giddens, 1998). According to Giddens, modern people have to adopt

a stereotypical attitude of trust, almost as a natural state in their daily lives, even though they do not fully trust the system in which they live (Tomlinson, 2004).

Giddens stated that our security experience is based on a balance of trust and acceptable risk. In recent years, the food sector has been an increasingly serious area of scrutiny of what constitutes this balance. Growing food-related scandals and fears have led to a significant decline in the public's confidence in food, although there has been more and more work to ensure the safety of food. Although we have partial knowledge of the production process, we consume food every day. Therefore, in our food consumption, we need to rely on food safety, or at least assume that the risk of developing a foodborne illness is low. Giddens meant this when he defined safety as a balance between trust and acceptable risk (Zachmann & Østby, 2011).

In modern life, the consumer is constantly faced with uncertainties and risks. The modern world allows the consumer to enjoy freedom with the abundance of options it provides, while at the same time producing a number of dangers and risks. With the development of modernity, the production of wealth has systematically accompanied the social production of risks. In line with this, the contradictions and problems associated with the distribution of goods in the famine society are compounded by contradictions and problems that rise from the distribution and production of techno-scientifically produced risks (Özcan, 2007).

Trust in the food sector is important not only for the food industry and the agricultural sector but also for governments, because if there is no trust in society, there will be no cooperation and society cannot survive. Scientific procedures to minimize risk are still necessary in the food industry but are insufficient to ensure consumer confidence in food. Trust is not just based on risk assessment. Communication and transparency are also essential. A dialogue

with stakeholders, including consumers, is necessary about potential risks (Frewer & Van Trijp 2006). As Rodríguez-Entrena & Salazar-Ordóñez (2013) states, food consumers may think negatively about health and environmental risk if they are not adequate or not knowledgeable about new technologies. This perception worsens with the low level of trust in the authorities responsible for the implementation of these technologies and the food audits.

Pieniak et al. (2009) conducted a study to determine the motivations that are effective in consumers' food preferences in six European countries. As a result of the research, it was determined that familiarity is effective in consumers' food preferences and has a relationship with traditional food consumption. Again, the natural content factor was also found to be another important motivator in food selection.

Menozzi et al. (2015) conducted a study to reveal the motivations affecting the food preferences of French and Italian consumers. The results of the research suggest that habits, trust, previous behaviors and socio-demographic characteristics of French consumers are effective in buying food (chicken and honey). In addition, it has shown that trust is the most important motivation affecting the purchasing decisions of Italian consumers.

Mohd-Any et al. (2014) conducted a study to determine the motivations that influence the food preferences of Malaysian, Chinese and Indian consumers. As a result of the research, price, convenience and sensory attraction, which are effective in food choice, were identified as the three most important motivations. People tend to choose safe and familiar options and prefer habitual and routine food. The personal factors that influence food choice also relate to the taste and health aspects of foods. Emotions such as anxiety have also been found to influence consumers' food choice decisions. Food anxiety in Turkey, as a country affected by its geographical proximity, is closely related to fears such as the risk

of cancer after Chernobyl. Consumers and producers have come under more and more pressure as companies dominate, declining government support in agriculture and increasing food insecurity. In addition, consumers in Turkey are exposed to news reports about the repatriation of exported food products to meet the food safety criteria of the respective countries (Al&Küçük, 2019).

A study on food trust in European countries made determinations on the views of trust as well as the roles of food authorities. This study states that the modernization of the food industry is a concern and that consumers have the perception that processed foods are less safe than untreated. Food experts and consumer organizations are expected to tell the truth in a food scandal (e.g. salmonella in chicken). A majority could not be obtained in the explanations regarding the trust in the institutional authorities. Politicians, mass media, and commercial actors are suspected of telling the truth (Kjærnes et al., 2007).

Consumers' trust in food safety, food inspections and responsible authorities also significantly affect their food choices. A sense of trust is an important factor that determines the effect of food policies implemented within the framework of food systems.

## **2.1.5. Factors Affecting Consumption Behavior in the Food System**

### **2.1.5.1. Age and Generation**

Age and generation influence in food preference is linked to nutrition transition and changing food systems. The changing food environment over time also affects the food preferences of generations. Generational differences in lifestyle and attitudes translate into different needs, preferences and expectations when it comes to food preferences.

While examining the generational difference in food preference and consumption, the transition of food systems also shows its effect. Food systems that change over time are classified for easier analysis. However, the same system does not exist everywhere at the same time and there are also transitions between systems. Characteristics of traditional food systems are; rural, smallholder farming, access to fruit and vegetables only in season, eating meals at home, short life expectancy. In traditional food systems, policies should focus on the physical accessibility of nutrient content-quality diets. With regard to consumption, healthy nutrition instruction is not enough, though necessary: policies should be directed on the access to food that make up healthy eating (HLPE, 2016).

Mixed or transitioning food systems have been identified as more processed and packaged food, street foods, increased eating habits outside, and obesity. Mediations pointed at improving infrastructure and intensifying safety of food in mixed food systems will retain their importance. In modern food systems urban life and the urban connection to the countryside have also increased. Food and food deliveries outside the home have increased but obesity rates have risen a lot despite high life expectancy and improved health care (Fanzo, 2018). Availability and economical access to food a major question for poor people. Policies should focus on food quality. Food health problems can be prevented by practices such as subsidies or taxation of certain foods, nutrition education, marketing restrictions for the food industries, labeling prerequisites on ingredients. There have also been important shifts in food consumption habits through modern food systems. With the increase in revenues, demand for cereals, meat, dairy products, sugar and fats increased. Anxiety of undernutrition was also added to nutrition anxiety with high quality food. (Gina Kennedy & Shetty, 2004).

A study by the Canadian Government (Fernando, 2016) examined differences in intergenerational food preferences. Born in 1945 and before Seniors, born in 1946-1965 Baby Boomers, born in 1966-1971 Generation X, born in 1972-1992 Millennials (Generation Y), born in 1993 and later Generation Z. In the Millennial generation, meals prepared without waste of time and the choice to eat outside predominates. They also demand different ethnic and cultural tastes, paying attention to how food is grown, whether it is organic or natural, and attention to sustainability principles. The parents of this generation are more Baby Boomers and rarely Generation X. The health factor stands out in the preferences of Boomers, anti-aging and looking young is important for this group. For those with high purchasing power, the quality of the food, not the price, affects their preferences. Generation X is a group that tries to balance family life with work life, food preferences are blissful, higher education level food labels and nutritional information affect food choices, they are interested in cooking, and prices of foods affect preferences. Another study at the United States of America (USA) on the comparison of intergenerational food preferences (Fleishman Hillard, 2018) found that Boomers are much less interested in how food is produced than other generations in nutrition-related articles, and this issue is not a priority for them. For Millennials, food is an indicator of their lifestyle, and they prefer to share their information and thoughts on food on social media, believing that they are setting food trends in their circle of family and friends. Boomers are the most vulnerable groups when it comes to food waste.

Zarei and Ahmadi (2015) examined the nutrition transition of generation difference between mother and daughters. The increase in the level of education in mothers is more associated with eating modern foods. In contrast, daughters' consumption of modern food decreases as their level of education increases. This may be due to the fact that daughters with higher education are more aware when compared to their mothers. This association has been shown in many studies

(Moreira & Padrão, 2004; Kriaucioniene et al., 2012), which examine that unhealthy eating is less common among people with high levels of education. The relationship between education and modern eating is in the opposite direction for daughters in direct proportion to mothers. This is probably a result of the transition from traditional to modern food system in eating habits.

The natural food factor is formed from the perception that foods have unadulterated, natural content. As people's age and education levels increase, the importance they place on the natural food in their food choices increases. Marital status is also an element that affects natural food consumption. People who are married give more importance to the natural food factor in food consumption. This may be because married people and housewives care about the nutrition and health of their families and the negative impact of the food they consume on them more than single consumers and their concerns about this issue. As with natural food, the importance given to health factor increases as age increases (Girgin & Karakaş 2017).

In the study of Chambers et al. (2008), he demonstrated that age has a large impact on eating habits. Participants over the age of 60 are more likely to make food choices based on health-related considerations. Participants aged 18-30 are less interested in the food and health link, and instead preparing food, they focus on information about food, prices and time issues. Among the female participants, both young and old stated that looking good was effective in their diet. Overall, these results show that consumer motivations for healthy eating differ and that this should be considered by the government, retailers and food manufacturers. The more mature you become, the more aware you are of the benefits to health along with a balanced diet (Chambers et al., 2008). In addition, the risk of getting sick increases as you get older, leading to healthier diets to avoid or reduce disease symptoms (Shatenstein, 2008).

Food consumers' age and generation differences also affect food preferences due to reasons such as life conditions and economic conditions. Food consumers' age and generation differences also affect food preferences due to reasons such as life conditions and economic conditions. The Sensitivity of different age groups who encounter different production styles in terms of sustainability may be similar and / or different under different conditions. Examining this factor is important for this study, as it significantly affects food preferences.

#### **2.1.5.2. Income and Education Level**

Income and education level significantly affect consumer preferences and various studies are carried out in this regard. The increase in revenue plays an important role in decreasing malnutrition (Smith & Haddad, 2015). Increased revenues could ease access to more assorted and nutrient-rich foods, as well as more energy-intensive, nutrient-poor foods. High income is a crucial aid for healthy and organic eating, but it also increases access to a much more diverse range of unhealthy foods. What makes the difference here is the awareness and awareness of the consumer (Mayén et al., 2014).

Data in high-income countries show that healthy diets tend to be more expensive (Drewnowski & Specter, 2004; Rao et al., 2013). In developing countries, poor families spend 50-80 % of their revenue on food, so food prices increase raise the rate of food spending in their budgets. What matters at this point is that food spending is now also a significant proportion in the budget of the upper-income consumer who wants to eat sustainably and healthily (Friedmann, 2017; Alexandratos & Bruinsma 2012). Research has indicated that lower nutritional quality diets are more cost-efficient per calorie than healthy and nutritious diets, and that they are often chosen by people of low socio-economic status (Darmon & Drewnowski, 2015).

De Almeida et al. (1997) shows that education level can affect dietary behavior during adulthood. However, the fact that information on nutrition comes from different and contradictory sources negatively affects the ability of educated individuals to implement their nutritional information (Kearney, et al., 2000).

When we look at the effect of educational status on children's eating habits, children of low-education families eat a lot and are overweight compared to children of high-education families (Ebenegger et al., 2011). Case and Paxson's (2002) study also concluded that the socioeconomic level of the family and the income situation had an effect on the children's health and therefore their eating habits. Also, middle-and lower-income mothers who feel the pressure of raising “organic children” have trouble procuring organic food and are negatively affected (Cairns et al., 2013).

Johnston et al. (2011), in his research in Canada, states that ethical eating patterns, such as organic food consumption, are seen as a way for individuals to address social and ecological problems, but that such ethical consumption is an elite social practice, if that niche markets attract upper-class, educated consumers. Another factor similar to the natural food factor mentioned under the title of age effect is the ecological factor. The ecological factor is also a factor that is given more importance as the level of education increases (Girgin & Karakaş 2017).

The effect of income level on nutritional content follows a parallel course in countries with close income levels. However, it should be noted that the higher purchasing power in developed and Northern countries, the greater share of organic food consumption and the size of the organic market are different from Turkey. In Turkey packaged organic food in domestic sales rose to about 90 million US dollars in 2015 from 15.3 million US dollars in 2009 but were not shared equally between the classes. The dominance of global agri-food firms in

the organic farming market causes organic food to be sold at prices that are barely available to all segments of society. In this case, organic foods are aimed at certain segments of the society (Al, 2017).

Recent research shows that poverty maintains a certain level in Turkey, especially in rural areas. Agricultural producers are unable to produce by staying away from productivity or migrate to cities and do not have the chance to produce in the food system and therefore create important problems in terms of healthy eating (Kıymaz, 2011).

In Nazik and Şanlıer's (2001) study with families from different socioeconomic levels, it was observed that as the socioeconomic level of the families increased, there was an increase in the habit of shopping from the supermarket. They found that while the proportion of those who describe advertising as promoting a product according to the socioeconomic level of families is falling as the socioeconomic level rises, the proportion of those who describe it as the art of influencing people is increasing. Dölekoğlu & Yurdakul (2004), in his study nutrition, quality and food safety applications were examined. In the study, he tried to determine adequate and balanced nutrition levels by taking into account the monthly consumption of households. It was found that 83% of the average daily calories taken were vegetable and 17% were from animal origin and showed a positive relationship according to the family's monthly food expenditure. Price and brand were found to be effective features in purchasing decision.

A Wharton University (2018) study found that high-income and educated households consume food products about 40% closer to the United States Department of Agriculture recommendations than low-income and less educated households. In addition, education level was found to be much more effective in differences in food preferences than income level. Nord et al. (2009) also shows

that limited resources, such as income, are not the only predictor of food insecurity. Instead, restricted education can increase the probability of food insecurity. Because food safety is not just access to food, it is access to food that contains the ingredients necessary for a healthy life. In this analysis, it is stated that education plays a significant role in developing healthier lifestyles. Improved education may have a notable role in reforming an individual's food choice, but nutritional knowledge may be more profitable than general instruction, resulting in healthier food preferences.

The effects of income and education level on consumption demands have been examined by many studies, different income groups are sensitive about natural food demand and environmental effects of food consuming. In this thesis, the demands of the group of the upper income and education level living in the city were examined. Therefore, the details of these factors are important.

### **2.1.5.3. Gender**

Gender makes a significant difference in consumers' food choices. According to Rozin et al. (2006), individual dining options, although very personal, it moreover reflects social norms, cultural habits and religious beliefs. Food systems are constantly determining our conventions and culture and there is a mutual interaction. Gender relations and norms have a very important role in food environments and regimes. In numerous countries, women decide the diet of households. Besides as principal caregivers, they have a strong impact on the nutritional status of children.

Wardle et al. (2004), the results of his study mention that dietary preferences are on the same trajectory as female and male life expectancy. Female life expectancy is about 7 years longer than male. While healthy food choices for men and women are parallel in discourse, women are more active in

implementing these preferences and keeping pace with change. This can be said to be effective in preparing food in the household and determining the preferences of the woman.

The mother's duty is to be more careful about her food choices. Motherhood exists dialectically with the nature of a raising child; an idealized mother is a mother who takes responsibility for the moral and also physical protectors of the following generation. The decision of mothers is prominent in the child nutrition with the understanding that mothers are often the first guardians to develop and support the child's potential (Burman & Stacey, 2010). She is particularly concerned about taking on extra responsibility for organic food and states that her husbands do not want to deal too much with the issue of organic food. At the same time, fathers do not heed the rules set by mothers about healthy nutrition of children, and sometimes do not follow the rules. In this case, it also becomes necessary for women to make efforts to convince their partners (Al, 2017). Women have long assumed the responsibility of raising precious children, and food is at the center of this concern (Murphy, 2000). In their work Cairns et al. (2013) stated that women interested in this ideal take on the responsibility of organic nutrition, protecting the child from the harmful effects of the industrial food system, and maintaining healthy eating practices in their lives as a project. Nourishing the organic child is not only a gender-based task (gender labor) but also emotionally creates a work for the woman. It has also become a benchmark for whether or not to be an adequate mother. Many women have to struggle with much of the same or contradictory information from friends, family and media about safe and healthy food choice, and they are confused about what information they can rely on (Cairns et al., 2013).

Missagia et al. (2012) examined the factors affecting meal choices and healthy eating habits simultaneously taking into account gender. In the study, it was observed that men and women paid equal attention to the health factor, while

men's healthy eating habits were lower than women's. As a result of the study, it was revealed that the factors that were effective in food consumption differed considerably by gender. In his study Magnusson (2004) examined consumers' approach to organic and genetically modified foods. 2 different scales were applied to 2000 consumers and the factors were covered as personal (habit, attitude, belief, values), environmental, economic, social and cultural, food and health. The study found that women care more about health factors than men, while young consumers care more about environmental factors.

A study of participants from 23 countries found that women preferred fruit and high-fiber foods more than men, rather than high-fat foods. About 50% of gender differences in food choices are due to a desire for greater weight control among women and healthy food choice (Wardle et al., 2004). In a research considering gender differences in dietary trends, eating habits and dietary reliance among college students, there were far more women than men stated experimenting with a low-carb diet. Besides, more women than men believe it is essential to limit their consumption of carbohydrates and fats in order to reduce weight (Davy et al., 2006). This may be a cause for dissimilarities in eating patterns between women and men. Among elementary school students in Ohio, it has been found that the nutritional knowledge of girls in classrooms is higher than that of boys (Pirouznia, 2001). A study in Norway found that women were more conscious about their health and adhered to the recommended dietary practices. In a study among Swedish university students, the obesity rates of male students higher than female students and the male students, they were less concerned with healthy eating and nutrition counseling (Fagerli & Wandel, 1999; Von Bothmer & Fridlund, 2005).

According to some study examples from Turkey, Ustaahmetoğlu and Toklu (2015) found that in their survey entitled "A survey on the impact of organic food purchasing intention attitude, health awareness and food safety", The

intention to consume safe food made the most impact on organic food purchases. It found that there was a relationship between profession and attitude towards organic products in relation to demographics, gender and intention to purchase organic products. Dayılar (2018) found that women are more informed consumers in food preferences than men about food safety and related quality systems. Sağlam's (2018) study found that women pay more attention to food packaging when it comes to food shopping, checking label information, preferring foods with high nutritional value. Following the media on food and applying recommendations and natural food sensitivity, women were again seen to be ahead of men.

Studies have shown that gender affects food preferences and being a mother / father transforms food choices. In this study, parents were interviewed to monitor the effects of having children and its role in sustainable food consumption and the influence of policies.

#### **2.1.5.4. Examples of Public Policy Towards Food Consumers**

Consumer policies in food systems focus mainly on food safety, nutrition, sustainable food consumption and food waste. While ensuring food safety requires operating in the production, processing and distribution parts of the food chain, various policies are also implemented in the consumption phase of nutrition. In all circumstances, it is important to inform the consumer and raise awareness.

Hansen & Schrader (1997), in their efforts to develop a modern consumption model for a sustainable society, they emphasized the importance of adopting an understanding of consumption that will maximize not only individual benefit but also social benefit, and what roles they can play in expanding this model. In order for the sustainable consumption phenomenon to succeed, countries based

on high levels of consumption should adopt environmentally responsible consumption behavior and reduce consumption levels. In order to achieve this, consumer education is of great importance (Fuchs & Lorek, 2005; Mont & Plepys, 2008).

The limits of the education to be given to consumers are tried to be drawn on the basis of social responsibility. Socially responsible consumption is a form of consumption that takes into account the likely consequences of decisions and behaviors that are not motivated by consumers' choice of available resources, making purchasing decisions, and their desire to satisfy their own needs alone. Consumers should be directed to act responsibly and sensitively, considering the impact of their behavior on other members of society. It is aimed to be created a consumer view that can think critically on products, use their analysis capabilities, meet their needs and see their impact on society (Hellman-Tuitert, 1999). If children and young people are not adequately prepared to live in the world of today and tomorrow, then it is impossible to talk about the benefits of education. It is necessary to make the education system relevant to the daily life of the student and to allocate a fundamental place to consumer education within this system. An educational institution should follow the principles of sustainable consumption as a whole, including teachers, students, administrators, other employees and families. Non-formal education institutions should also be supported as they are a complement to formal education. Mass media is an important force in guiding consumers' preferences and lifestyles, especially children and young people. Therefore, mass media should be mobilized to communicate important messages and reliable information about sustainable consumption (Hayta, 2009). There are many policy proposals for ensuring that communities consume healthy food. From an economic point of view, social benefits and cash transfer policies are implemented at the point of access to food. Improving the food environment, eliminating unhealthy and non-nutritious food, educating consumers about safe and nutritious foods, and organizing programs

for children in schools will contribute to community health. The “healthy corner stores” practices can improve the availability and accessibility of fresh and healthy foods. This practice can be in supermarkets as well as in the form of a separate store with government support. Eating out with a changing lifestyle has also made the services of food businesses important. “Labeling” or highlighting healthier options on menus can also have a significant impact on the consumer's food choices. Research shows that healthier products with labels with text and symbolic color to indicate their nutritional levels rather than food-specific labels that emphasize only numerical information, such as daily amounts expressed in percentages or grams are chosen by consumers (Hersey et al., 2013). Food labeling is implemented front-of-pack in some countries. In the United Kingdom (UK), “traffic-light” labelling is the practice of colouring food according to its nutritious content. In France from 2017, “nutriscore label” is applied to packages, foods are lettered according to their healthy content. In Australia, the practice of “health star rating” has more stars on the label of healthier foods (OECD, 2017). Labelling is also important when it comes to food waste; many dates on product packaging can be confusing for consumers. Labels that provide information about the storage conditions of the products will benefit consumers. Several studies in the US, Europe and the UK suggest that consumers think food history labelling is more linked to food safety, whereas these dates are more related to the quality of food. This can lead to waste (HLPE, 2014: Bio Intelligence Service, 2010).

Consumer research shows that consumers do not know about the amount of food that is waste. So, the first stage should be to inform consumers about the amount of food lost or wasted (Bond et al., 2013). There are two methods to reduce household-level food waste; the first is to influence people's actions, while the second is to change food packaging and extending shelf life (Quested et al., 2013). Reducing consumer-induced food waste in developing countries is relatively difficult, as it depends on individual behaviors and cultural approaches

to food. Besides country-sized strategies, waste can be reduced by drawing attention to the size of waste. With education and laws, food loss and waste can also be reduced in retail food services. It can also contribute positively to direct to consumers to sustainable and healthy food preferences (Bond et al., 2013). Retailers can play an important role in reducing food waste and directing it to sustainable consumption because they are close to the end consumers.

Press, internet and television programs are also useful in educating consumers about how to use leftovers. The role of the state in preventing consumer waste is also important. Especially in schools, “healthy food procurement policy” is necessary both for children to have access to healthy food and to have proper eating habits. A policy of taxation on those products is also implemented in some countries to limit the availability of less healthy options (Mah et al. 2015). Keeping nutritious food could affect consumers’ behavior and food purchases. Some studies have shown that consumption of taxed sugary and sweetened drinks can be reduced by 20 to 50 %, while subsidized fruit and vegetable consumption can be raised by 10 to 30 % (Eyles et al., 2012; Thow and Downs, 2014a; Thow et al., 2014b).

The laws related to foods are not clear in terms of definition of safety and public is confused about the application of food safety policies. An important limitation for participation of consumers on decision process is the asymmetric information and knowledge of consumers about food safety and quality criteria in scientific manner. Consumer organizations guide consumers about which audit process applied before food is presented to the consumer's, which labels and documents the consumer should pay attention and which rights they have on the food they consume. While food industry has opportunities of highly technical personnel and laboratories, consumer organizations do not have the same opportunities to make the necessary scientific analysis for their arguments. The developing countries’ consumer organizations use mostly the information produced in the

developed countries which do not fit always to the specific cases. Consumer organizations can increase their technical capacity by cooperating with associations which have expertise in food, agriculture, nutrition and health sciences, although consumer affairs may not be always profitable for these institutes (So et al., 2013). Besides the food laws, national legislation exists to ensure protection of consumers on trade, environment and health issues. Several countries have finalized their legislative process on consumer protection. However, consumers do not have enough information about their rights, and they cannot use the advantage of their benefits of these measures. Since there is a lack of cooperation between the food sector and public regulatory authorities, any interaction between the sector and authorities is seen suspicious in many countries. The situation of lack of trust do not serve for consumers or the industry. Active participation of consumers will increase the confidence of consumers in the food control system in national level. Therefore, increase in willingness of the government for involvement of consumer and sector views about food control is one of the most important public policies. On the other hand, sector organizations mostly have confederations based on common interests, despite consumers do not have such an organizational capacity. In addition, representation may be affected by political pressures (Malik, 1993; Anklam & Battaglia, 2001).

A comprehensive food policy by governments will affect international food companies in the long term in order to improve quality. There is a need to raise consumer awareness about where and how food is produced by taking the consumer to the center. Consumer education will be the basis for the change at the system level and subsequent behavioral changes. (ARCH, 2016). Food and eating education in schools, communities and universities enables consumers to understand the nutritional value of various food sources and preparation processes of farmers and food operators. It also allows consumers to make healthy choices. Nutrition instruction as part of other services such as mother-

child health care and school meal programs, can provide information and regulation on healthy eating practices, including breastfeeding. It is recommended that in pursuit of breastfeeding for the first 6 months, mothers are recommended to breastfeed their babies until the age of 2 for their healthy development. (WHO, 2018). In addition to nutritional education on breastfeeding, the implementation of policies to support working women affects the rate of breastfeeding (Stevens & Janke, 2003). "National food-based dietary guidelines" is an essential source of information and guidance for all food process actors. They provide the most recommendations on the formation of healthy diets that are appropriate to national conditions. It also encourages greater investment in a healthier and more diverse range of products in many sectors (CFS, 2019). Food literacy comes across as a newly developed term that includes all of the knowledge and skills of consuming food. The popular definition of food literacy is "basically the ability to understand the nature of food and how important it is to you, to learn about food, to process, to analyze and to use it." Food literacy is known to have eight components such as initiative, planning and managing, choosing, knowing where food comes from, preparing, eating, nourishing and language (Vidgen & Gallegos, 2011). Preventing obesity and chronic diseases is possible with the right eating habits gained from an early age. In prevention programs prepared for this purpose, increasing food literacy is taken into consideration. Trainings aimed at increasing their ability to reach the right food and use the right food are considered as part of food literacy (Brooks & Begley, 2014). Today, when dozens of new industrial foods are available in grocery stores every day, it is possible to increase the responsibility of adults to choose and consume healthy food for themselves by raising awareness about what to do when a food that threatens their health (Block et al., 2011). In nutrition programs conducted in the US, students are given information about food hygiene and safe food selection, while students in-school eating habits are followed to ensure healthy nutrition (Robertson, 2015). Garayoa et al. (2005) conducted a study in Spain with 562 university students over the age

of 18 and found that the students of the department of food science and nutrition had accurate information and behavior about temperature control in cross-contamination and food preparation compared to students who did not study in health-related departments. In addition, another study emphasized that trainings on food hygiene will improve consumer behavior (Sumner, 2013).

Haapala and Probart (2004) conducted a survey study of 178 students among seventh and eighth graders of 4 schools in Pennsylvania under the title “Food safety knowledge, perceptions and behavior among middle school students”. In this study, they found that there was a disconnect between the food safety knowledge, perceptions and behaviors of secondary school students and that motivating food safety education was needed for this group.

With the nutritional transition, eating out habits have increased and the rate of eating at home has decreased, but how often and where people eat is an important determinant of how healthy their diet is. It has shown that in many societies, women have a role of childcare and home cooking. Therefore, women play a critical role in the primary target of policy makers. (Hartmann et al., 2013; Gillman et al., 2000). Some countries actively support the preservation of traditional food culture. In South Korea, for example, concerns by the government, citizens and scientists about the rising obesity rate have led them to launch a campaign to preserve the traditional Korean diet. The government developed meals using local products to promote local agriculture and obesity rates are decreased (Lee et al., 2002).

Policies are being carried out especially in developed countries to combat obesity, which is causing concern with its rapidly increasing rate. In this regard, the importance of breast milk starting from infancy is emphasized. The contents of the infant formula are reorganized. Care is taken to regulate food

environments to combat obesity in children and to ensure that foods sold in schools are nutritious (Harris & Graff, 2015).

Policies that regulate the production stage can also be implemented from time to time on the delivery of healthy and safe food to the consumer and the provision of public health. For example, in Costa Rica, food fortification was applied in flour and milk and iron deficiency was significantly reduced (Martorell et al., 2015). By setting standards for salt level in foods, hidden salt consumption can be reduced. 75 countries have implemented national salt reduction programs since 2015 (Trieu et al., 2015). A 7-year salt reduction program was implemented in the UK in the early 2000s. In this context, rules have been introduced to the food industry to lower salt levels, and informative labels and campaigns have been organized for consumers.

What tools will be used to raise consumers' awareness will affect the success of the policy. The influence of TV and social media can be used as an advantage. Shim (2016) conducted a survey with 1,026 social media users aged 18 and over in the US, selected from the National Representative Panel of Information Network in Korea, under the title "Social media use for food risk information for the consumer: Survey findings in the United States and their impact on the Korean context". About 26% of those surveyed have used social media, which is the most popular resource to search for or share social reminder information, in the past year. While users were positive in their perception of the risk of developing foodborne diseases and their trust in information obtained from the internet, their trust in healthcare professionals was negative. Hama Kareem et al. (2016) found that modern social media has a much greater role than traditions in their survey study of 351 people who are full-time employees, with the headline "Social Media and Consumer Awareness for Manufactured Foodstuffs."

International rules and standards have been adopted and implemented to ensure food safety. HACCP and ISO 22000 include determination, implementation, monitoring, evaluation and analysis of the results, improvement and updating of internal and external conditions, determined by hazard analysis along the current and potential hazards in the food chain (input supply, production, distribution). ISO 14001 aims to reduce the use of natural resources of global gap and minimize the damage to soil, water and air.

## **2.2. Public Policies on Food in Turkey**

### **2.2.1. Current Status and Authority in the Country**

According to 2018 data from the Economist Intelligence Unit's (EIU, 2018) study, which is mentioned under the heading of food safety, Turkey is 48th out of 113 countries with a score of 64.1. while the top three in the world are Singapore (85.9), Ireland (85.5) and the United Kingdom (85), the last three are African countries Madagascar (27), Congo (26.1) and Burundi (23.9). In food safety dimensions, Turkey has the lowest score in food availability with 60.9, while its highest score is quality and safety with 70.1, and it has a score of 65.3 in food access. These rankings and scores differ each year. Availability and accessibility of food in Turkey can be in different order in different years, but the constant situation is that the food safety and quality is always the highest rated.

The Ministry of Agriculture has a long history with regard to food inspection in Turkey. The Ministry of Agriculture and Rural Affairs established food standards and the authority to determine the quality criteria was given to the ministry. In 2011, its name became the Ministry of Food, Agriculture and Livestock, and its earlier multi-headship on food was largely corrected. By Presidential Decree (2018), the ministry was merged with the Ministry of

Forestry and Water Affairs and became the Ministry of Agriculture and Forestry and the ministerial duties related to the subject of the study are as follows:

- To ensure safe food and feed supply, to conduct studies in order to establish policies for this purpose and to supervise the implementation,
- To determine the principles for the traceability of food, food additives and substances and materials in contact with food at each stage of production, processing and marketing related processes,
- To determine the qualifications of the establishments producing food, food additives and materials and materials in contact with the food, and to determine the permits and registration principles thereof, to make their permits and registration processes, to register these establishments in the food registry, to make or control and inspect the production and sales places,
- Carrying out research and development activities with universities and research and development (R&D) institutions, conducting training, publishing and promotion activities,
- Carrying out or having all kinds of training activities on issues within the scope of the Ministry,
- To cooperate with the relevant public institutions and organizations and private organizations about the publications to be made in the areas that fall under the Ministry's mandate.

Food safety systems are developed and implemented based on risk. It offers a comprehensive overview of food safety through international rules under the name risk analysis. The food-related legal regulations in force in Turkey also envisage the establishment and implementation of this system. Risk analysis model operates in three stages.

The first stage is called risk assessment. Risk assessment focuses more on identifying the danger. This phase requires a scientific perspective. Risks that

may arise from foods and threaten public health are determined and classified at every stage from production to consumption. In Turkey, this structure is carried out by the Risk Assessment Department under the Ministry of Agriculture and Forestry. Independence and transparency are indispensable to this process. (Ataman, 2017).

The second stage is the risk method. The relevant public authority (Ministry of Agriculture and Forestry), which is responsible for ensuring food safety, should examine the results of the risk assessment and take measures to ensure food safety. Risk management is more of a political process. Again, it is very important that the samples are received by the official procedure to the authorized laboratories and that the laboratories are accredited. The final stage is to include risk communication in the development of these measures. Consumers will be better able to protect themselves against the dangers that may arise from food to the extent that they are more aware of the risks they face. It is the stage at which the strategies that are directly related to the consumer's right to access information and which will provide reliable information to the consumer are determined and implemented. This orientation sometimes leads the consumer to make wrong choices and turn to the risk of food safety (Ataman, 2017).

In fact, the Ministry of Agriculture and Forestry is the sole authority to ensure food safety. Exceptionally, other Ministries have been authorized and assigned. The Ministry of Health is responsible for the activities related to obesity, waters and supplements, and the Ministry of Trade is responsible for the rules to be followed in foreign trade and consumer rights. The Turkish Standards Institute (TSE) operates at the standards-setting point and within its own food laboratory. The Scientific and Technological Research Council of Turkey (TÜBİTAK) and other organizations active in the field of food. Marmara Research Center Food Science and Technology Research Institute of TÜBİTAK was established to carry out R&D studies for the technological development of the food industry,

increasing the competitiveness of the food industry, ensuring the safety of food and consumer, and the elimination of nutritional problems.

However, the phrase included in the “New Economic Programme” prepared by the Treasury and Finance Ministry (2019) covering the years 2020-2022 is as follows:

In our country, national food safety and food products of all kinds in order to ensure proper quality of materials and articles in contact with food hygienic and public health and consumer rights in the entire process from production to consumption of the protective and preventive projects will be implemented.

In the legislation, the authority on food safety is given to the Ministry of Health while the responsibility for the statement is given to the Ministry of Agriculture and Forestry. This may cause authority confusion.

The minimum technical and hygiene criteria that must be carried by foodstuffs and substances and materials in contact with food must be determined. The criteria set must also be made into legal rules. These rules are determined by the Codex prepared within the framework of the EU (European Union) and Turkish legislation. The Codex is prepared by the Codex Alimentarius Commission within the framework of the EU food law and the National Food Codex Commission in Turkish law. The main authority of this commission is the Ministry of Agriculture and Forestry, the commission includes representatives of the Ministry of Health, TSE, academicians and non-governmental organizations.

In Turkey, organic agriculture policies were started to be implemented in 2004 with the EU harmonization process. The Ministry of Agriculture and Forestry has transferred control and certification processes to independent companies. Organic production increased nearly fivefold from 2005 to 2017 to about 1,610 million tons in Turkey (Ministry of Agriculture and Forestry, 2019). Although the volume and popularity of organic food production has increased, the Turkish

organic market is more export-oriented than the domestic market. In a study examining consumer behavior on organic agriculture and food products in the EU and Turkey (Eryılmaz et al., 2015), it was found that organic agriculture and food products are regularly consumed in EU countries, but consumption in Turkey is low and irregular. The study also stated that the reason for the low consumption of organic agriculture and food products in some provinces of Turkey is insufficient information and high prices of organic products.

Per capita organic food consumption was just 1 euro in 2014, while that figure was 121 euros in the US, 118 euros in France, and 236 euros in Sweden. With these figures, only middle- and upper-class consumers in Turkey have access to organic food, which is limited (Al & Küçük, 2019). Small-scale farmers in Turkey do not know enough about organic agriculture, bureaucratic requirements and marketing relations, and this information is important in this export-oriented field. In European countries, marketing and processing policies for small-scale farmers are implemented and at the same time these producers are informed through training activities (Ataseven, 2014). Since the support given to organic production varies in regard to the amount of land produced, small-scale farmers cannot benefit from this support as efficiently as large-scale organic producers (Keyder & Yenil, 2013).

In the scope of the “Development Plan for Increasing Domestic Savings and Prevention of Waste” (Presidency of Strategy and Budget, 2014) prepared on the basis of the 10th Development Plan, the organization responsible (Ministry of Agriculture and Forestry) for the action will be carried out in the awareness-raising and orientation activities for the prevention of waste in food products other than bread determined under the policy of organizing campaigns for reducing waste. In the explanation part of this action, it is stated that determination of trends related to the consumption of foodstuffs, determination of the dimensions of surplus consumption, promotion and awareness activities to

be carried out in this regard and other practices for enterprises such as touristic facilities and restaurants are within the scope of this action. It is planned to carry out awareness raising and information activities by preparing educational seminar, conference and meeting and visual publishing materials for rural youth, women, consumers and all farmers. Local governments also have a duty to prevent food waste. On the subject of food waste, it is important for municipalities to make visual and written explanatory publications on raising awareness for the delivery of food whose consumption is not a health problem to the needy and to reduce the waste. At this point, it is especially important for local governments to operate in harmony with central policies in order to achieve the goal of reducing waste.

The Ministry of Trade, the General Directorate of Consumer Protection and Market Surveillance are authorized regarding the Consumer Rights which are important in terms of the subject of the study. The powers and duties of the Directorate General for the protection of consumers are very broad. The head office is responsible for making arrangements for the protection of consumers, making decisions, carrying out audits.

Consumer Arbitration Committees were established to facilitate the solution of consumer problems, as judicial authorities were ineffective and inadequate in the solution of consumer problems. Consumers may apply to the Consumer Court in cases of disputes in monetary value exceeding the authority limit of the Consumer Arbitration Committee (Ministry of Trade, 2019). Another reason for the creation of consumer courts is to ensure that consumers reach a settlement without expense. The attorney and expert fees that the claimant has to undertake in case the necessary conditions are met are covered by the ministry (Aslan, 2016). Another unit concerning consumer rights is the Consumer Council. The Consumer Council is responsible for investigating the measures to be taken for the settlement of consumer disputes in favor of the consumer and communicating

their opinions to the relevant authorities. The Committee meets at least once a year under the coordination of the ministry in order to take necessary measures in order to solve consumer problems within the scope of universal consumer rights, to follow the developments in the field of consumer protection, to make opinions and suggestions on legal regulations on this issue, and to make suggestions for training and awareness of consumers (Çiçek et al., 2016).

Due to the lack of development of non-governmental consumer organizations in Turkey, the government and public organizations, especially established by Law on Consumer Protection, played an important role to protect consumers (Aslan, 2016). It is useful for consumers to become a member of consumer organizations so that they can have stronger positions in the market and more easily defend their rights (Gülmez, 2006). Consumer organizations have operations in informing the public, raising awareness by for consumer rights, food hygiene, quality, traceability, certification and strengthening civil society. Consumer organizations are guiding consumers on the topics; the control process of safe food offered to the consumer's choice, labels and documents which the consumer should pay attention, and rights which they have on the food they consume. As a matter of fact, consumer organizations create awareness on the rights of consumers through the activities they carry out and affect consumer behavior positively and make them more conscious.

In 2011, the Ministry of Trade published an informative booklet titled “Conscious Consumer-Consumer Awareness” explaining the rules that consumers should pay attention to, but the document does not have a title on food consumption. However, in a public spot prepared by the Ministry of Agriculture and Forestry, it was stated that the consumer was the principal auditor when purchasing food, and some technical issues such as serial numbers that the consumer should pay attention to were explained.

In 2018, the Ministry of Trade prepared a “Consumer Profile and Level of Awareness Research Report” that provides information about consumers' food expenditures in Turkey. 31.5% of consumers with monthly household income of TL 5,001-7,500 have the highest share in food expenditures, followed by consumers with monthly household income of TL 3,001-5,000 (31.1%) and consumers with monthly household income of TL 7,501-10,000 (29.1%). Food expenditure of consumers with monthly household income of 10,001 and above is 23.5%. Although there is a big difference in income, it is seen that this is not reflected to the food expenditure rate at the same rate, which can be interpreted as the differentiation (organic, natural, etc.) of consumed foods as income increases. According to the research, the most important product group for consumers is food (90.6%). This ratio is an important indicator of consumer confidence in food.

The Biosafety Board, established in 2010 and undertaking supervision of biotechnological agriculture and food products, was abolished in 2018. It was stated that the Board, which carries out the task of evaluating applications related to genetically modified organisms activities and products in Turkey, was independent in doing its duty according to the Biosafety Act and that no body, authority or person could give orders and instructions to the board. The authority of the Biosafety Board, established in Turkey as the equivalent of neutral institutions responsible for ensuring the control of modern biotechnological products in many countries in terms of their impact on human, animal, plant and environmental health, has been transferred to the Ministry of Agriculture and Forestry.

### **2.2.2. Practices**

According to Erbaş (2017), the idea that problems can only be solved by a different social design and State understanding, which sees access to healthy and

adequate food as a basic human right, rather than by an irrelevant State understanding. In this respect, consumer food policies are inevitable for healthy individuals.

In the 2019-2023 Strategic Plan of the Ministry of Agriculture and Forestry (2018), it is stated that public interest and awareness towards food safety is increased but that public information pollution poses a significant threat. Accordingly, the importance of transmitting the information to the public by the competent authority has been determined.

The “174 Call Center” (Alo Gıda Hattı 174) application, which is aimed at the consumption ring of the chain in the field of food safety, started in 2009 with the aim of creating awareness in the society, increasing the opportunity to acquire information and obtaining complaints and notices of the consumer in this sense, is ongoing. Table 1 shows the number of applications made in recent years. Not all applications have been finalized in the last two years. In the scope of the information, the companies that make false and false acts are periodically shared with the public on the Ministry's website. Türkomp “National Food Composition Database” created by TÜBITAK is a national system that enables easy access to the content of the component values of foods produced and consumed in Turkey. The aim of the system, which provides free service over the internet, is to provide consumers with access to reliable data on food components produced at national level and international standards.

**Table 1**

*174 Call center number of applications to the food line and number of administrative sanctions*

Years	Number of Applications	Number of Completed Applications	Number of Criminal Proceedings
2015	67.099	67.099	4.113

**Table 1** (continued).

2016	77.384	77.384	3.829
2017	75.936	75.566	3.866
2018	93.191	92.038	3.738
2019	89.667	87.085	3.752

*Note.* Adapted from Ministry of Agriculture and Forestry Annual Plan(2018; 2019)

The official controls carried out by the Ministry of Agriculture and Forestry to prevent deceiving of consumers and to ensure food safety and food contact materials for the prevention of producing and for businesses who supply to the market. The frequency of official controls is determined within the framework of the procedure for determining risk-based audit frequency of enterprises and this frequency increases in the event of any risk. As a result of the audits, it is observed that administrative fines or criminal proceedings have been imposed on the enterprises. It is necessary to assess the deterrence of administrative fines in enterprises. In addition, inspections show that the food system is more concentrated in the consumption phase than in the production phase. Table 2 shows the number of inspections conducted at food production places, sales places and mass consumption places. In addition, it was announced to the public that the companies that made imitation and adulteration as a result of the Ministry audits and 1211 products belonging to 618 companies were announced in 2019 within this scope. 1068 of these products were announced to the public due to their imitation and adulteration and 143 of them as active ingredients.

**Table 2**

*Food inspection counts and penalties imposed*

Year	Food Production Place			Food Store		
	Number of Audits	AF*	CC**	Number of Audits	AF	CC
2015	138.951	4.974	53	315.611	4.564	28
2016	146.388	4.876	61	391.149	5.090	30
2017	174.379	5.575	85	467.411	5.858	50

**Table 2** (continued).

<b>2018</b>	<b>180.027</b>	<b>6.277</b>	<b>102</b>	<b>469.280</b>	<b>6.537</b>	<b>51</b>
<b>2019</b>	193.430	5.726	100	498.743	6.004	44
<b>Year</b>	<b>Collective Consumption Place</b>			<b>Total</b>		
	Number of Audits	AF	CC	Number of Audits	AF	CC
<b>2015</b>	280.270	3.432	11	734.832	12.970	92
<b>2016</b>	356.427	4.109	11	893.964	14.075	102
<b>2017</b>	412.065	5.126	46	1.053.855	16.559	181
<b>2018</b>	475.611	5.350	33	1.124.918	18.164	186
<b>2019</b>	523.823	4.698	30	1.215.996	16.428	174

*Note.* \*AF: administrative fine, \* \* CC: Criminal complaint to the prosecutor's office. Adapted from Ministry of Agriculture and Forestry Annual Plan (2018; 2019)

Public spots are widely used in visual media to inform the consumer. The public spot thus far has been the importance of safe food consumption for healthy life, 174 Call Center, the necessity of reducing salt, obesity, what consumers should pay attention to when buying food, school grapes, school milk programs.

With the “2016-2021 excess salt consumption reduction program” conducted by the Ministry of Health (2019b), the goal is to gradually reduce salt consumption in the community to recommended levels through a multidisciplinary approach to protecting public health and preventing the formation of diseases. The protocol was signed with the Turkish Federation of Food and Beverage associations. Accordingly, the amount of salt in 22 categories in packaged foods will be gradually reduced. There will be a similar practice in restaurants and places serving mass meals. A new protocol is being prepared for the reduction of the ingredients (fat, sugar) that lead to adverse health effects in meals, especially salt. Accordingly, operation that reduces excessive salt use and operation that reduces excessive oil, sugar, energy use and does not use trans-fat studies will be carried out and colored front face labeling studies will be carried out on food packaging.

With the salt reduction program implemented since 2011, salt consumption in Turkey has decreased from 12 grams per person to less than 10 grams. The amount recommended by the WHO is half of that, i.e. 5 grams person/day. Under the Program, the salt content in bread has been reduced by 25%. The amount of salt in 100 grams was reduced from 2 grams to 1.5 grams, the amount of salt in tomato paste was reduced by 64%, the salt in cheese was reduced by 35-61%, and the salt in olives was reduced by 50%. The amount of salt in 100 grams was reduced from 14 grams to 5 grams.

According to the Ministry of Health (2019b) data, obesity rate in Turkey is 20.9% of women and 13.7% of men. In total, the obesity rate in Turkey is 17% and this rate increases every year. According to the WHO (2015), 32% of children between the ages of 2 and 18 in Turkey are on the verge of obesity. Obesity in children in Turkey with socio-economic position of a study which examined the relationship of high socio-economic school group representing 49 overweight patients (%49.4) and 9 obese patients (75%), low socio-economic group representing 17 school students (%17.1) the determination of excess weight, despite the phenomenon of obesity among students who attend this school have not been detected (Özdemir et al., 2008). In another study, Gürakan et al., (2011) found that the incidence of obesity in rural children in Iğdır province, whose socio-economic conditions are more limited, was significantly lower than that of children living in Muğla rural district. In the context of these findings, it was concluded that there was an interaction between the socioeconomic level and the frequency of obesity in children in the correct proportion.

Launched in 2013 under the responsibility of the Ministry of Health “Turkey Healthy Eating and Obesity Program”, aims to obtain adequate and healthy eating habits and to increase physical activities. In the fight against obesity, balanced nutrition and regular physical activity are carried out in cooperation

with the food industry to prevent obesity. Healthy nutrition and regular physical activity are promoted through media, news and advertisements. Each school program and the educational materials prepared separately for adults with the logo "Growing Turkey with Healthy Eating Active Students" aims to make nutrition and physical activity trainings given in schools more effective (Ministry of Health, 2019a). Although the Ministry of Health is the authorized body for obesity studies, the Ministry of Agriculture and Forestry publishes a public spot on this issue.

Breastfeeding training, which is a part of nutrition education, is given free of charge in hospitals, community and family health centers. Also, booklets and brochures about breastfeeding are distributed in these institutions. However, in addition to education, the duration of breastfeeding permits for working mothers is important in terms of promoting breastfeeding. In Turkey, after 13 weeks of leave, civil servants have 3 hours permission per day for the first 6 months and 1.5 hours permission per day for the following 3 months. In addition, they are allowed to have unpaid leave up to 2 years. Employees working under the Labor Law are given 1.5 hours of milk leave per day if they have children under 1 year old.

In 2015, Turkey took over the rotating presidency of the G20. Turkey has set food safety and agriculture among its priorities. During the Turkish presidency, the theme was defined as "reduction of food losses and waste within the scope of the establishment of sustainable food systems" was also highlighted in the Waste Report prepared by the Ministry of Commerce in 2017.

The "Bread Waste Campaign" conducted by the Ministry of Agriculture and Forestry, Turkish Grain Board (TMO, 2015) on food waste is wide-ranging. In the study, it was determined that the cause of bread waste was more neglect and ignorance, it was decided to develop a campaign to eliminate it, and the

campaign was started in 2013. Within the scope of the campaign, the web site was reached to the consumers by using tools such as written and visual media, public spots, as well as by informing them through various conferences, presentations and panels. Many institutions and organizations cooperated in the execution of this campaign. As the campaign continues, according to the results of the research conducted at the end of 2013, bread consumption decreased from 23.809 tons per day in 2012 to 8.69 million tons per year in 2013 to 21.496 tons per day and 7.85 million tons per year. While the monetary equivalent of consumption was TL 26 billion in 2012, this figure fell to TL 23.5 billion in 2013. The annual consumption of whole wheat bread, which was 463 million units (116,000 tons) in 2012, increased by 93% to 894 million (223,000 tons). The campaign saw positive changes in the bread consumption habits of the society and progress was made in the consumption of healthier bread, as well as in the reduction of waste. The campaign continued until the end of 2018 (TMO, 2015). In the framework of “Save Food” Project with FAO, the Ministry of Agriculture and Forestry prepared “Turkey’s National Strategy Document on Prevention, Reduction and Monitoring of Food Loss and Waste and Its Action Plan”, this initiative aims to create awareness of consumers on food waste to manage food value chain’s actors within the aim of reducing food loss and waste (Ministry of Agriculture and Forestry, 2020).

Directing consumption preferences, which are also used in the campaign to prevent bread waste, is important for the consumption pillar of the food chain and for making choices for proper nutrition. In this respect, “school milk program” should also be mentioned. The said program was started in the 2011-2012 academic year and extended to 5 years. With the program, which is an example of the work of directing consumption preferences in the name of healthy nutrition, it is aimed to give the habit of drinking milk to children of development age who are not familiar with milk before. In this context, the

“school grape project” was started in 2015 with the aim of contributing to adequate and balanced nutrition by gaining dry fruit consumption habits.

The Ministry of Agriculture and Forestry and TUBITAK provide support for R&D projects and among the priority areas to be supported for 2019 are “measuring food waste and loss” and “food consumption structure and its development in Turkey”.

The Ministry of National Education, the Ministry of Health, the Ministry of Agriculture and Forestry signed the "Food in School Cafeteria Cooperation Application Logo Protocol" to be included in the food in the canteen since the 2019-2020 academic year. The school food logo aims to prevent the consumption of energy-intensive products and to combat obesity.

### **2.3. Sustainable Food Systems**

The concept of food system has begun to be widely used as a conceptual and analytical tool to describe all processes and units in food preparation. A food system consists of food chain activities (growing, processing, transportation, marketing, food consumption) and food system actors, all of which go through specific processes. This process in the food system has had many environmental and socio-economic consequences (Allen&Prosperi, 2016). The food systems framework is seen as the foremost compelling procedure for making food and nutritional security more sustainable (Sundaram, 2014). First, focusing on impacts and key points in different areas allows for a multidimensional evaluation. Second, this could provide a framework for structuring the detailed topic's discussion through integrated evaluation (Caron et al., 2018).

In order to analyze the food system, which includes many elements, a perspective that ensures that all important elements of the system are included.

Thus, inferences can be made about the relationship between the units within the system (Ruben et al., 2018).

Sustainable food systems cover food production, processing, distribution, consumption, marketing, corporate networks and socio-economic and environmental consequences that include these activities. (Pitt & Jones. 2016). The concept of unidimensional food chains, which depicts the end consumer as a passive buyer, is being replaced by food systems as living, integrated organizations that encompass active consumers, feedback loops and reciprocity (Halberg, 2017). The food systems analysis is based on a systematic assessment of different key procedures in terms of food availability, access and use, notwithstanding with a detailed assessment of the roles of disparate units, particularly those involved in the consumer's role in food systems. It necessitates a thorough understanding of the organization and pre-determined social and environmental dynamics of a food system. Here are some essential issues to relate food system assessment to nutrition policy (Grant, 2015):

Household targeting: focusing on nutritional outcomes for different categories of consumers (differentiated by wealth, gender and age) with specific dietary preferences. Multiple distribution routes of food; food production, open markets, supply of retail and supermarkets, and restaurant and food services. Information networks: Interactive management of material flows and information exchange networks between different stakeholders and directing decision-making processes by food systems. Diet implications: effects on possible nutritional imbalances caused by the dietary pattern of various food products. Food systems will be able to contribute to proper and healthy nutrition when evaluated on these issues.

Handling food systems from a sustainable perspective ensures careful use of resources at all stages of food production, processing and consumption. Food

systems approach must be based on “resource smart food systems” in order to provide food security in the world. Sustainable and resourced intelligent food systems provide an integrated understanding of food security and consumer needs and human health (Hajer et al. 2016).

Sustainable food systems protect ecosystems, human welfare and social equality. Therefore, it aims to provide financially fair, culturally acceptable, nutritionally sufficient and safe food in a way that balances the agricultural ecosystem and social welfare. Providing affordable, nutritionally adequate, safe and healthy food is essential, but not sufficient, for a food system to be sustainable. To be sustainable, a food system must also aim to reduce food waste and food losses and minimize their current and future impact on the environment and society. In this context, the balance between the integrity and social welfare of agricultural ecosystems and their compromises are seen at the heart of sustainable food systems (CGIAR-CIAT, 2017).

### **2.3.1. Food Security**

With the hunger and food crises in the world, international studies have been carried out to make food reach everyone and conceptualize the food problem. The concept of food security was created after these experiences. It is worth immediately noting that food security and self-sufficiency are concepts with different technical and political contents. Furthermore, while self-sufficiency gives priority to the vehicle (national production) to achieve the defined goal (nutrition), food assurance, a more technical concept, is satisfied with the goal of access to adequate food, i.e. it can include food imports into the system when necessary (Blein, 2007). The following are the generally accepted definitions and dimensions of food security adopted at the World Food Summit in 1996 (FAO, 2006);

Food security is that all people always have access to adequate, healthy, safe and nutritious food physically and economically in order to meet their nutritional needs and food priorities that are essential for their active and healthy life.

The basic dimensions of food security are examined in 4 main headings in the following articles (FAO, 2006; Keskin & Demirbaş 2012);

In addition, availability of food, physical presence of food refers to the supply dimension of food security, and the availability of adequate food of appropriate quality supplied through domestic production or import, including food assistance.

Economic and physical access to food is defined as the ability of individuals to access sufficient resources to obtain nutritious food. Adequate access to food is directly related to food policies as well as to income, expenditure, market and price policies, which are more general and affect people's food intake.

The principle of consuming food is also expressed in the form that the body can benefit from the various nutrients in the food. Adequate nutrition, eating habits, food preparation is determined according to the variety of dietary patterns taken by individuals.

The stability of the first three dimensions is examined as the fourth dimension of food security. In order to ensure food security, an individual's or community's access to food must be continuous and sustainable. Even if food intake is sufficient today, the lack of access to food at regular intervals may affect the nutritional status and lead to the elimination of food safety. Access to food should not be affected by unexpected changes such as economic crises, natural disasters or seasonal causes. In other words, the concept of stability covers both availability and access dimensions of food. In addition, it is important for all

actors to communicate and cooperate with each other on food issues to ensure sustainability in food security (Artık, 2005).

In order to ensure food security, all these dimensions must be provided simultaneously (FAO, 2006; Keskin & Demirbaş 2012).

FAO et al. (2019) explained food insecurity at two different levels. People who experience moderate food insecurity face uncertainties about obtaining food and are forced to compromise on the quality and / or quantity of the food they consume. Those who have experienced severe food insecurity are devoid of food and could not consume food during one day / days. Those who have food insecurity in 2018 are 9.2% of the world population, or approximately 700 million people. 26.4% of the world's population, about 2 billion people are moderate and severe food insecure.

Adequate nutrition is essential for health. Everyone has the right to consume safe, adequate and nutritious food. The right to food is an inclusive right and is teeming with many rights. It cannot be simplified in the form of the supply of calories, protein or other nutrients that should only be taken in a minimum amount in terms of daily nutritional needs. Therefore, the right to food is the right to have all the nutrients and means of transportation that a person needs to live a healthy and active life (FAO & OHCHR, 2010). Ziegler et al., (2011) further extended the scope of the definition, stating that the right to food is: “the right to food; in accordance with the cultural traditions of the people to whom the consumer belongs; the right to regular, continuous and unlimited access to quantitative and qualitatively adequate and satisfactory food, both directly and through financial acquisitions, providing a physical and mental, personal and collective, satisfactory and fear-free dignified life.”

### **2.3.2. Food Safety**

Food safety is the set of measures taken by manufacturers to eliminate physical, chemical, biological and all kinds of health hazards in food marketed for consumption. In other words, food safety refers to compliance with the rules and measures taken in order to protect food from harmful elements in the production, distribution and consumption chain until it reaches the final consumer (Tayar, 2010).

It is important to establish and support risk-based sustainable and integrated food safety systems in order to reduce the health and social burden of foodborne illness. In addition, it is necessary to ensure that microbiological and chemical risks in foodstuffs reach unacceptable levels by making measurements based on scientific basis at every stage of the food production chain. In order to assess food-borne risks and take the necessary precautions, solidarity and communication are required at all stages of the food chain (Koç, 2013).

Foods are not safe if they are harmful or not suitable for human consumption. The harm caused by food to human health can be short-term or long-term, including current or future generations. The harm of foods to human health; It can be determined by causing diseases, bodily ailments and abnormal changes in the human body. The damage in question should be identifiable by the normal consumption of the food. For example, if any food is damaged as a result of excessive consumption, it is not possible to say that the food is harmful (Tayar, 2010).

Consumers have an important demand for food safety, and there are many methods that make it a process they can follow. Standards, which contain general rules that ensure the measurement of food safety, are one of the ways used by many food producing actors and governments. Certificates provide information

on the labeling of origin and traceability systems, safety of food consumed. Food standards and certificates such as the ISO 9000 series are increasing and quality systems are being implemented as voluntary public standards in the local and global arena. (Lusk& McCluskey, 2018).

### **2.3.3. Food Value Chain**

The food value chain consists of all actions and units that direct food from the production to its consumption as well as the disposal of food waste (Hawkes and Ruel, 2011). In addition, food chains include many actors, such as farmers, agricultural businesses, grocers, retailers, distributors and consumers. These affect the stages of the food up to consumption and whether nutritious foods are convenient, affordable and admissible. Food value chains in developing countries have undergone a rapid transformation. Most of the food was grown by small-scale farms in rural areas and consumed locally at home. Food was also bought from small local markets. However, this is because most of the food consumed in middle and high-income countries has traveled long distances and has been linked to several different units in a food value chain. This has been influenced by the divergence in food consumption patterns due to modern retailing, revenue growth and distributor expansion. (Kraemer et al., 2016).

Production, the first ring of the food chain, affects food availability, dietary quality and diversity. The different kinds of food available can significantly shape diets where and how they are produced (HLPE, 2017). Sustainability in food production is achieved by optimizing many stages, from the purchase of raw materials to the efficient use of water and energy, from waste management to the movement of packaging and distribution to protecting the environment, and by delivering healthy and safe foodstuffs to the consumer (CIAA, 2008). Strengthening food systems against risks such as climate variability and economic shocks necessitates more varied production systems at diverse levels.

The production cycle can contribute to the quality and variety of the diet in this way (Jones & Ejeta, 2016).

Distribution and storage is another part of the value chain. Food that producers do not consume immediately should be stored or distributed for later consumption. This situation in the functioning of the food value chain, food safety and food quality losses have an important impact on diet quality and can cause serious harm to human health (HLPE, 2014; Unnevehr & Grace, 2013).

Furthermore, food processing and packaging is another unit of the food chain. Food processing can change the food's nutritional content, flavor. However, the process involves removing key nutrients that must then be added back to foods, or that would normally have to be restricted for health reasons (sodium, sugar and trans fats etc.) can also reduce the nutritional value of food by adding ingredients. (Weaver et al., 2014; Mozaffarian, 2016). Food companies can ensure sustainability by reducing material and energy use in packaging to a minimum, reducing packaging weights and recycling. In this regard, food companies should cooperate with packaging manufacturers and support their R&D efforts. Solid waste composed of packaging during the consumption phase should not harm nature and endanger human health (Koç, 2015).

Moreover, another stage of the food value chain is marketing. There have been significant changes in this regard over time. The dominance of supermarkets in particular has also changed food consumption habits. The segment that decides in the food chain is shifting from producers and farmers to merchants and retailers, to multinational companies. For that reason, food value chains now require comprehensive management mechanisms. (Lang & Barling, 2012).

There are studies on why and how social and environmental aspects of sustainability should be integrated in value chain analysis to achieve sustainable

competitive advantage (Fearne et al., 2012). Adanacioğlu et al. (2018) also explained the sustainability impact of the value chain in different dimensions in her work. Social sustainability refers to cultural and social benefits and acceptable results in these dimensions. Environmental sustainability is determined by the fact that value-added activities of value chain units have the least negative effect on the environment. The improved value chain model in terms of environmental sustainability includes environmental resources must create an additional value without consuming it permanently. An economic, existing or proposed improved value chain can be considered sustainable if it also benefits economically for the public and private sectors (Adanacioğlu et al., 2018). In Swisher et al. (2018)'s study, food chains in sustainable food systems were analyzed, examining seven different case studies, and some findings were reached. Emphasis was placed on the potential of value chains to increase the agricultural sustainability of the rural population and reduce their disparities with food insecurity.

### **2.3.3.1. Consumption in Food Systems**

The consumption patterns that shape existing food systems affect human health, food safety and the agro-ecological resources that support both. This change in consumption trends, on the one hand excessive and on the other hand inadequate consumption decrease depends on public policies, private sector and consumer behavior (Moomaw, W. & Barthel, 2012).

European Commission (2007) specified trends in food consumption:

The first trend is the increased diversity of food consumed. Social and technological developments and changes in the way food is prepared and purchased are the reasons for this. The second trend is that habits change. Consumers are spending less time eating at home, having access to different

foods for storage and cooking. In addition, their decisions can differ because they have access to more information. A third trend is differentiation in the content of the consumer's diet relative to its budget. As diet-related diseases (obesity, diabetes, hypertension, osteoarthritis, and cancer) increase, wealthy consumers update their diets with new foods (vegetarian, organic, special dietary requirements).

WHO (2018) stresses the importance of starting healthy eating habits at an early age (starting with breastfeeding) and limiting sugar and salt intake for a healthy diet. It advises people to eat plenty of fruits and vegetables, wholegrain, fibrous, while stating that they should avoid sugary snacks and drinks, processed meats and saturated and industrial trans fats in their diets. A balanced and healthy diet varies according to age, sex, lifestyle and physical activity status. The foods consumed will vary depending on cultural characteristics, locally available foods and dietary traditions. However, there is no change in the basic characteristics of a healthy diet.

By re-examining the food system with the inclusion of an environmental footprint, sustainable diets have taken their place within the food system framework. The study of individual diet and associated environmental sustainability outcomes made it more clear about the environmental impact of food consumption habits. The concept that sustainable diets are the driving forces of sustainable food systems and also their consequences (Allen & Prospero, 2014).

Recently, consumption of sustainably produced foods; for example, organic foods has been increasing. Implementing sustainable diets can improve diet quality and therefore human health and have a positive impact on the environment (Johnston et al., 2014). Sustainable diet is one of the key factors for the existence of sustainable food systems (Meybeck & Gitz, 2017). Scientific

recommendations for nutritional changes are generally perceived as poor in terms of availability in daily life. For this reason, nutrition science needs to be separated from traditional research paths and a solution is needed. Theoretical and practical innovations to help develop and maintain targeted feeding behavior are important in this regard. There needs to be increased work where responsibilities are shared and cooperation between science and society is encouraged (Coudel, 2013).

Sustainable diets cannot exist without sustainable food systems, the opposite is true. With the provision of sustainable food choices, sustainable food systems also develop gradually. This is why it is important to support consumers in adopting and implementing sustainable diets (Fink et al., 2018).

### **2.3.3.2. Food Loss and Waste**

To begin with, food loss is a decrease in the quantity or quality (appearance, flavor, and nutritional value) of foods intended for human consumption. These losses are mainly due to inefficiencies in agricultural production, harvesting, post-harvest processing, transportation and storage of crops. Food waste, on the other hand, refers to the discarding of food suitable for human consumption at the retail and consumer levels of the food value chain (FAO, 2014).

In addition, about 1.3 billion metric tons of food are produced annually but cannot reach the consumer. Large quantities of nutritious foods are lost through degradation and pest damage in storage within the food chain, and insufficient cold chains (Hengshol et al., 2018). Reducing of nutritious foods' loss and waste will bring significant benefits to the economy and nature in addition to combating hunger and malnutrition as a "new" priority. In low- and middle-income countries, different practices are required to reduce the loss and waste of nutritious foods and to ensure that maintaining high-quality diets are affordable

and physically available. The efficient use of resources in food production and processing, and a strong market connection are examples of practice. (Global Panel on Agriculture and Food Systems for Nutrition, 2018).

Food waste of consumers may depend on some reasonable choices in some cases. In case of time limit, a consumer can purchase food without prior planning, which can result in excessive shopping. Similarly, if food consumption has not a significant share in the budget of the consumer, he/she may not be sensitive enough to food waste in terms of financial constraints (FAO, 2019). In the restaurant and ready-to-eat sector, it was determined that the standard portion size, the number of future customers and the amount of consumption could not be estimated correctly. In retail outlets, inactive stock management, promotion efforts that increase the number of purchases (one for two free, etc.) can be explained as aesthetic problems in store design, deficiencies in production in farmers and manufacturers, losses in harvest order and after harvest, errors in packaging with faulty processing techniques and unfavorable storage in the entire food chain (Buzby & Hyman, 2012).

It can be said that all stakeholders in the food chain have different roles. Choosing the right communication methods is crucial for consumers, whose behavior change in the chain is the most difficult. The information given to consumers about which foods are still suitable for consumption (expiry date / recommended consumption date) are not understandable. Ensuring that they have information about how to preserve food and the amount of food discarded will reveal the seriousness of the issue. (Dölekoğlu et al., 2014).

### **2.3.3.3. Food Environment**

The food environment refers to the physical, economic, political, and socio-cultural environment, opportunities and conditions that shape people's dietary

preferences as well as their nutritional status (Swinburn et al., 2015). Food environment is defined as the availability, accessibility and adequacy of food in a community or region. In addition, this concept covers the physical characteristics of the environment experienced, social and cultural characteristics of society. Although it is difficult to determine the boundaries of the food environment, outside the boundaries of our body, such as home kitchen, local markets, supermarkets, restaurants, cafes, food courts, school cafeteria, media, social media, our senses related directly or indirectly to food and every It can be said that things have changed a lot in the last forty years. (Bianet, 2017). Food environments have been identified as an important predictor of people's well-being and, as a result, have a significant impact on overall public health and well-being. It has also been widely recognized that food circles have a significant impact on dietary order, health status, individual knowledge, preferences, and behaviors (Story et al., 2008).

The concept of "consumer food environment" is that the consumer knows the information about the availability, variety, price and quality of foods, as well as healthy and less healthy food choices. This conceptualization has driven much of the experimental research in terms of the various food sources and products that humans can acquire and consume. However, community and consumer-centered concepts have shown that the situation has more complex and different dimensions from the wide-ranging point of view addressed with the goal of acquiring food (Townshend & Lake, 2009).

The interaction between the personal domain and the external domain is the most important component in the food environment covered by the concept of the food system. The availability, price, vendor and product characteristics (opening and closing times of the places that sell food, quality of food, safety, packaging and marketing) constitute the external domain. The concepts covered by personal domain are as follows; the personal dimension of access to food, which was

previously described with the concept of food security, ease of going to the food vendor, distance and time adequacy, cooking effort, food preparation and finally the consumer's preferences, desire, culture, knowledge and ability.

## **CHAPTER 3**

### **THE RESEARCH**

The aim of this thesis is to examine causes and results of the consumer behaviors, which determines the dynamics of consumption in the sustainable food systems and analyze the appropriateness of public policies on food consumption in Turkey. Consumption in the food system includes food choices, food safety and food waste. Public policies for the consumer on food are to ensure food safety, to take measures for proper and healthy eating and to inform the consumer, to prevent food waste and to work for sustainability. However, many studies have shown that factors such as age, income, educational status, gender and lifestyle shape the food preference of the consumer. At this point, it is necessary to determine the public policies within the scope of the food system by considering the dynamics required by the system as well as the factors in question, in order to achieve the objectives of the policies.

In this context, in order to examine the consumer behavior on food consumption qualitative research method was used and in-depth interviews were conducted. The reason this method is chosen is to focus on the expectations, wishes, perceptions and recommendations of the interviewees. This method was deemed appropriate as an assessment of the policies implemented. Semi-structured interview questionnaire was used in the interviews. While the questions for the interview are not clear, some questions and explanations have been added to help the interviewees better understand and clarify some answers. The interviews lasted 30-35 minutes and were recorded and transcribed.

Purposive sampling and snowball sampling methods were used to select the interviewees. While determining the characteristics of sampling, factors affecting

food preferences were taken into consideration and a sampling was created in accordance with the purpose of the study. After conducting each interview, the participants were asked whether they knew the people with the specified characteristics and who wanted to share their experiences. It is observed that women had much more willingness to conduct interviews. Therefore, it was difficult to find man to conduct interview on food consumption. Since all the interviewees were employees except for one, it was difficult to arrange meetings for the interviews. Also, some interview had to be postponed due to last minute meetings of the interviewees.

**Table 3**

*Summary of Interviewees\**

	Age	Education Level	Occupation	Gender	Number of Children	Household Income level (TL)
1	33	Master's	Employment Expert	M	1	15000-20000
2	33	Bachelor's	Public Employee	M	1	15000-20000
3	34	Bachelor's	Lawyer	M	1	15000-20000
4	33	Master's	Trade Expert	M	1	15000-20000
5	39	PhD	Economist	M	3	15000-20000
6	33	Master's	Planning Expert	M	1	20000-25000
7	37	Master's	Veterinary	F	1	15000-20000
8	31	Bachelor's	EU Expert	F	1	15000-20000
9	32	Bachelor's	Expert	F	1	15000-20000
10	32	Bachelor's	Chemist	F	1	15000-20000
11	29	Bachelor's	Housewife	F	1	15000-20000
12	28	Bachelor's	Teacher	F	1	15000-20000
13	34	Master's	Statistician	F	1	20000-25000

*Note.* \*All the interviewees are married.

As showed in Table 3, a total of 13 in-depth interviews were conducted with 7 women and 6 men living in Ankara, married, having children, between the ages 25-40, who have high education and high income. A specific profile was created from many criteria that affect the sustainable food consumption preferences of the interviewees, and the effects of these criteria were examined in detail in the literature review section of the thesis. Married and children were identified to analyze consumer behavior acquired through the role of parents in addition to gender influence in food preferences (Chambers et al., 2008; Case & Paxson, 2002; Paquette, 2005; Shatenstein, 2008). Sustainable food consumption and environmental awareness are more common among younger consumers (Singh, 2009; Crane, 2001; ARCH, 2016; Fernando, 2016; Magnusson, 2004) and the age range has been determined accordingly. Thus, the young consumer profile with children has been chosen because the policies can have different effects and are more suitable for the purpose of the study.

Food is no longer seen as just a need to sustain life; many factors such as its content, way of production, sustainability, accessibility, safety and organic nature influence consumer preferences. Although the low income food consumers have consciousness about sustainable food consumption (Temple & Steyn, 2009; Hough & Sosa, 2015; Lockie et al., 2002) in this study high income consumers are selected as interviewees in order for the high costs of sustainable diets and foods and to eliminate the income restriction for sustainable food consumption. As a matter of fact, these differentiated criteria are particularly prominent in high-income consumers, as stated in the relevant titles of this study (Smith & Haddad, 2015; Drewnowski & Specter, 2004; Friedmann, 2017; Alexandratos & Bruinsma 2012; Dölekoğlu & Yurdakul, 2004). Per capita monthly income is 4,290 TL for 2019 in Turkey (TURKSTAT, 2019). The household income level of the interviewees is 15.000 TL and above.

Another factor determined for the interviewees is their high education level and the interviewees are at least university graduates. The reason for determining the high education level is that studies on higher education level (Girgin & Karakaş 2017; Nord et al., 2009; Ebeneggre et al., 2011) show that consumer awareness is higher and they behave in more detail in food preferences. In order to obtain more comprehensive findings from the sample, the interviewees were selected from consumers who do not have professional knowledge in food sector.

The questionnaire prepared for the interview consists of five parts. First, age, education level, occupation, household income level, number of children they have were asked. Then, the topics related to consumption in the food system, namely food safety practices, nutrition preferences, food waste, sustainable consumption and the role of the consumer in the system were asked. It is aimed to learn the individual preferences, expectations and thoughts of the interviewees on the mentioned issues.

The following sections provide a detailed analysis of the interview. The interviews conducted on the subject of the study were discussed in terms of sustainable food systems. The interview could have been discussed either in terms of policies or in terms of consumers. Examined in terms of policies; food safety rules and supervision, consumer information (public spot, labelling etc.), proactive applications for healthy nutrition (anti-obesity, school canteens rules etc.) and studies for sustainability (environmentally conscious production promotion, prevention of food waste etc.) are the main titles. In the examination from the point of view of the consumer; consumer awareness and poverty, sustainable food consumption, age, income, education, gender and child influence in food choices, and finally nutrition transition and its reasons have been the main sections. In this case, the scope of consumption in the sustainable food system is based on areas for a more comprehensive analysis of the subject and separate topics have been made for the subjects that need to be examined in

detail by the direction of the discussions. The following analysis is divided into five sections; food safety and consumer awareness, nutrition food choices and nutrition transition, sustainability, consumer role in the food system and trust in policies.

### **3.1. Operational Definition**

There are some concepts used in the research and it is important to define them to clarify the content of the research.

**Safe food:** Physically, chemically and biologically clean, ready for consumption; and does not lose its nutritional value when prepared according to its intended form (FAO & WHO, 2002).

**Organic food:** Foodstuffs where artificial and similar fertilizers, preservatives, chemicals, brightening agents and chemical packaging materials are not used in their cultivation and processing (Akin et al., 2010).

**Natural food:** Food grown without additives and intervention and not controlled by authorized units (Halaç, 2002).

**Food quality:** Food quality is the whole of the factors that determine the value of the product for the consumer. These elements are formed by combining features such as origin, color, appearance, irritation, adulteration, deterioration, contamination, processing (Grunert, 2005).

**Sustainable diet:** Diets that contribute to a healthy life for current and following generations, are adequate and healthy, protect ecosystems, include efficient resource use, are culturally acceptable, physically and economically accessible, have minimal negative impact on the environment. (FAO & OHCHR, 2010).

### **3.2. Limitations of the Study**

This study has limits in scope, since the qualitative method is used, a limited number of people have been interviewed and this does not allow generalization of the subject. The meetings were held with people of a certain socioeconomic structure and those living in metropolitan city, Ankara. The reason that the meetings are held only with those living in Ankara is because of the travel restrictions and the idea that all the meetings are held face-to-face will be more useful in the answers to be received. Different results may be obtained in the study with those living in the countryside.

The study conducted interviews with educated and married people with high income and having children. Working with people with different educational and social environments, lower income, single, younger or older, childless, may bring a different perspective to the issue.

In this study, which dealt with consumer behavior, only consumers were interviewed. The subject can be evaluated also by discussing with policy makers and people from other parts of the food chain such as production, marketing and distribution. In addition, the study examined the situation in Turkey by comparing countries of similar and different structure, deficiencies can be identified, and new recommendations can be presented.

## CHAPTER 4

### A CRITICAL ANALYSIS OF THE CONSUMPTION DYNAMICS WITHIN SUSTAINABLE FOOD SYSTEMS AND FOOD POLICIES

#### 4.1. Food Safety and Consumer Awareness

Food safety is a very important concept that affects the consumer in the food system. It is important for the consumer to know this concept in order to follow up and implement the developments on the subject. For this reason, the content of the concept was asked. Food safety and safe food are the first conditions of healthy eating, but these concepts need to be clarified.

“Those with clearance and also TSE certified foods.”<sup>1</sup> (Male, employment expert).

“What is meant by? I'm guessing this is what we call organic food, grown or cooked through organic methods.”<sup>2</sup> (Male, planning expert).

The fact that the concept of safe food is not internalized by consumers causes public spots and information activities on food safety to not create a perception in the consumer. As Gorgitano & Sodano (2014) states, consumer behavior is based on a wide variety of internal and external stimuli and constraints that occur in certain cultural, institutional, technological and economic settings, largely shaped by actions carried out by governments.

It is important to present information about safe food to the consumer in a remarkable way, instead of tools that require regular monitoring.

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<sup>1</sup> Üzerinde gümrük izni işareti olanlar, onun dışında TSE sertifikalı olan gıdalar.

<sup>2</sup> Ne demektir? Tahmin yürütüyorum, herhalde bu organik gıda dediğimiz, organik yöntemlerle yetiştirilmiş ya da pişirilmiş.

“I don't have regular follow-ups, but I'll look into anything that's remarkable. Usually from news on the internet or on television.”<sup>3</sup> (Female, housewife).

The catchy slogan (Safe food means healthy life, pay attention to what you eat and drink and consume safe food), which is frequently published by the Ministry of Agriculture and Forestry, especially in tv and radio commercials, does not reach the consumer when reminded in interviews.

“Oh, yes, I heard that tune, I can even sing it by heart. But I didn't know it had anything to do with food safety or anything, the concept of safe food doesn't exactly explain the situation.”<sup>4</sup> (Female, EU expert).

It is stated in all answers that the competent authority for food safety is the Ministry of Agriculture and Forestry. However, in addition to the answers given by conducting estimates, it was stated that different institutions were also competent.

“The Ministry of Trade is doing it and the Ministry of Agriculture is probably doing the audit.”<sup>5</sup> (Male, trade expert).

The “174 Call Center” established by the Ministry of Agriculture and Forestry with the aim of cooperating with consumers in food safety is not known by seven people. Comments on the application will be explained in another topic.

Regulations and standards such as HACCP, ISO 22000, ISO 14001, which are accepted in the field of food safety and which include the determination of current and potential hazards in the food chain by hazard analysis,

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<sup>3</sup> Düzenli olarak takibim yok ama dikkat çekici bir şey olursa incelerim. Genelde internet üzerinden ya da televizyonda çıkan haberlerden.

<sup>4</sup> Aaa evet ben duydum bu melodiyi hatta ezbere bile söyleyebilirim. Ama bunun gıda güvenilirliğiyle falan ilgisi olduğundan haberim yoktu, güvenilir gıda kavramı bence tam olarak açıklamıyor durumu.

<sup>5</sup> Ticaret Bakanlığı yapıyor, Tarım Bakanlığı da denetim yapıyordur herhalde.

implementation, analysis and improvement of control measures, are not paid attention when buying food. Consumers stay away because of the technical content of the issue; it is important to inform the consumer to create this awareness.

“I've actually heard of such things, but I don't know much about the difference between them, and I don't pay attention when buying food. These issues are too technical, it is very difficult for me to follow them as a consumer. If they can't quite do it, let them teach us in simple language.”<sup>6</sup> (Male, planning expert).

“I heard them, but I do not pay attention, there are brands that we trust and we do not need to look at them.”<sup>7</sup> (Female, veterinary).

The expiration date of the product is always taken into consideration in relation to food safety. Albayrak's study (2000) also highlighted that the factors that consumers pay most attention to when purchasing food items are the product's expiration date, production date and product packaging. It is related to the fact that the expiration date is the most understandable information in the packaging. Openness and intelligibility in labels is important for improving consumer awareness. In addition, the fact that the food has been degraded or out of date affects the consumer in a very short time, and it is more settled to look at the expiration date based on his experience with the food. Furthermore, it is important to raise awareness about the extent to which food content information will affect the consumer. There is a public spot prepared by the Ministry of Agriculture, which contains detailed descriptions of the criteria to be considered when receiving food. However, it has never been seen by those interviewed only on the Ministry's website, and it is not easy to access either.

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<sup>6</sup> Aslında öyle şeyleri duydum ama aralarındaki fark nedir çok fazla bilmiyorum, gıda alırken de dikkat etmiyorum.

<sup>7</sup> Duydum bunları ama dikkat etmem, zaten alıştığımız güvendiğimiz markalar var o marka olunca bunlara bakmaya gerek kalmıyor benim için.

“I look at the expiration date when buying the product, it's my only habit, it's easy to understand the date, it's easy to look at.”<sup>8</sup> (Female, chemist).

“I look at the expiration date because if the product is damaged I am affected at that moment; if it is sour, if it is stinky I do not consume it, the effects on its content are effective in the long term, who knows when the effect will emerge.”<sup>9</sup> (Male, planning expert).

It has been seen in the answers that women are more careful when buying food products and men don't pay much attention when buying products because they think their partner is already paying attention. Information activities that will be of interest to men and raise awareness about this issue can be done.

“My wife usually takes care of it, so I don't have to take care of it.”<sup>10</sup> (Male, public employee).

“My wife is very thorough, she knows more than I do, so I don't have to investigate.”<sup>11</sup> (Male, trade expert).

At the same time, the difficulty of applying the information possessed in the current living standards was indicated. At this point, it is necessary to intensify inspections at the first stages before reaching the consumption stage of the food chain.

“How do I know that I need to feed. I follow publications on this subject, I read books, but I can not bring food from home to the workplace every day, the food we eat in the dining hall costs 16 TL., how can you give a four-course meal at this price? That means quality is compromised to make it cheap, I know that. I

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<sup>8</sup> Ürünü alırken son kullanma tarihine bakarım, tek alışkanlığım bu, tarihi anlamak kolay ve ürün bozursa o an etkileniyorum içeriğine dair etkiler kim bilir ne zaman çıkacak ortaya.

<sup>9</sup> Son kullanma tarihine bakarım çünkü ürün bozursa o an etkileniyorum; ekşiyse, kokmuşsa tüketmiyorum, içeriğine dair etkiler uzun vadede etkili, etkisi kim bilir ne zaman çıkacak ortaya.

<sup>10</sup> Genelde eşim bakıyor, o yüzden benim bakmama gerek kalmıyor onun dediği markayı alıyorum.

<sup>11</sup> Eşim bu konularda çok detaycı, benden daha çok şey biliyor araştırmama gerek kalmıyor.

mean, even if we know something, it's hard to apply it in these life circumstances.”<sup>12</sup> (Male, economist).

Another issue linked to food safety and consumer awareness is food labels. Food labels are important for consumers to be informed and to be able to find food that is appropriate to their choices and to make healthy choices. As stated in the examples of food policy title, labelling is an effective tool used by many countries in terms of directing the consumer. Food labeling on the front side of food packaging, traffic-light labeling of food according to the nutritional content of the color of the letter according to the healthy content of foods, nutriscore label applications are examples of the subject. In Turkey, there are no cautionary and noteworthy labels on food labels such as additives, safety, showing the effect of food on health. In interviews, consumers were asked about their thoughts on existing food labels and asked for suggestions and how to act on different labels. The chemist interviewee also stated that labels are complicated to avoid understanding.

“I do not always think it is at a sufficient level and clarity. For example, the amount of some additives in the content is not specified. I also think that some additives are written by changing their names (e.g. Karregenar) and I also think that the content such as coding (e.g. E333) is not clear enough for consumers.”<sup>13</sup> (Female, chemist).

“I don't understand most of the labels, E's, I's, O's, codes. I don't understand the codes, I think they're encrypted and written so we don't understand things that are harmful to us. I know E330 since I was a kid, I know nothing else. I know

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<sup>12</sup> Ben nasıl beslenmem gerektiğini biliyorum bu konuda yayınları takip ediyorum, kitapları okuyorum ama işyerine her gün evden yemek getiremiyorum, yemekhanede yediğimiz yemeğin maliyeti 16 tl., dört çeşit yemeği bu fiyata nasıl verebilir? Demek ki ucuz olması için kaliteden ödün veriliyor. Yani bir şeyler bilsek de uygulamak bu hayat şartlarında çok zor.

<sup>13</sup> Her zaman yeterli seviyede ve açıklıkta olduğunu düşünmüyorum. Örneğin bazı katkı maddelerinin içerikteki miktarları belirtilmiyor. Ayrıca bazı katkı maddelerinin de isimlerinin değiştirilerek yazıldığını düşünüyorum (örn. Karregenar) ayrıca kodlama ile yazılan (Örn. E333) gibi içeriklerin tüketiciler açısından yeteri kadar açık olmadığını düşünüyorum.

that's a bad thing, but of course I don't understand anything.”<sup>14</sup> (Male, employment expert).

The lack of understanding of food labels leads to people not being fully informed about the food they are going to consume and not being able to make the right choices. All interviewees are of the opinion that it would be useful to write labels in a way that everyone can understand. It is important that the policies in this regard are regulated by manufacturer companies on clear and understandable labels regulations. In addition to informative labels, consumers are also expected to be informed about ingredients, additives and nutritional values used in food production.

“It's a fact that some well-known brands have failed in transparency. I believe that government policies can step in and create the necessary pressure at this point. Although firms try to defend themselves by showing regulations, the public conscience should see the results of the emerging science and technology as superior to the regulations.”<sup>15</sup> (Female, expert).

“It is written some chemical names on the packaging, but I don't know very much whether that chemical is an additive, a dye or a hazardous. But maybe something like food literacy should be like financial literacy to know it. As you said, these are the codes, but what it means is, I don't know all of them one by one.”<sup>16</sup> (Male, planning expert).

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<sup>14</sup> Etiketeki çoğu şeyi anlamıyorum, e'ler, i'ler, o'lar, kodlar. Kodları anlamıyorum, şifrelenmiş ve bize zararlı şeyleri anlamamamız için yazılmış olduğunu düşünüyorum. E330'u biliyorum, ta çocukluğumdan beri gelen, başka hiçbir şeyi bilmiyorum. Onun kötü bir şey olduğunu biliyorum ama tabii hiçbir şey anlamıyorum ondan.

<sup>15</sup> Bazı bilindik markaların şeffaflık konusunda sınıfta kaldığı bir gerçek. Devlet politikalarının bu noktada devreye girip gerekli baskıyı oluşturabileceğine inanıyorum. Firmalar yönetmelikleri göstererek kendilerini savunmaya çalışsalar da kamu vicdanı, gelişen bilim ve teknolojinin ortaya çıkardığı sonuçları yönetmeliklerden üstün görmelidir.

<sup>16</sup> Bazı şeylerin kimyasal isimleri yazıyor ambalajında ama ben o kimyasalın katkı maddesi mi, boya maddesi mi, tehlikeli mi, şu bu olduğunu açıkçası çok bilmiyorum. Ama finansal okur yazarlığı gibi belki gıda okur yazarlığı gibi bir şey olması lazım onu bilebilmek için. Dediğiniz gibi kodlar şunlar bunlar yazıyor ama ne ifade ediyor, hepsini tek tek bilmiyorum ama.

Food safety is an area where public policies have a big role to play. The rules and controls made since the production of food determine how the foods to be consumed and directly affect public health. As consumer awareness increases, this increases expectations of public policies.

## **4.2. Nutrition**

Nutrition has an important role in ensuring the effectiveness of food systems, because proper nutrition is a prerequisite for healthy living. Eating food that meets food choices for an active and healthy life, has a nutritious content, is reliable, both quantitative and qualitative, provides an adequate and balanced diet. At every stage of the food system, there are practices that can be done in the name of healthy eating. Consumers' food choices and the factors that affect them are important to draw the framework of the practices. The evaluations in this topic were made primarily on the basis of the answers given to the questions about nutrition preferences, and then on the basis of the answers to the choices that occurred as a result of the nutrition transition.

### **4.2.1. Food choices**

What is the consumer perception of packaged foods and how much place is given in nutritional preferences were examined in the first place in food choices. Packaged food comes to mind more junk food, but what is examined here, such as meatballs prepared by heating, cut-ready vegetables that make salads easier to make, food that shortens the stage of getting ready to eat. Because packaged foods have an important share in today's food and nutrition system, consumers' perceptions and opinions on this issue are essential for determining the content of applications for these foods.

There is a belief that packaged foods are unhealthy, and although the fact that consuming these products harms their health affects them negatively, all those interviewed are more or less involved in feeding packaged foods. The most important reasons for this are the comfort of being instantly ready for consumption in packaged food and the limited time in cooking and preparation.

“It's definitely not healthy, but we have to. I take packaged foods, but I try to consume less junk food, less chips. I mean, I'd like to consume as little as possible, but now, when there's no time, I tend to the packaged ones.”<sup>17</sup> (Female, chemist).

“I have the following perception, the product entered into the packaging definitely contains preservatives, shelf life is long for a certain chemical is infected, even if I buy pulses packaged there is a preservative I say.”<sup>18</sup> (Male, planning expert).

“It's definitely not comfortable when you're consuming packaged foods, but I can't give up completely because sometimes you have to.”<sup>19</sup> (Male, lawyer).

“Like poison, the fact that it can be preserved for so long already raises enough doubts. We want to completely remove him from our lives after the child, so hopefully we can make it.”<sup>20</sup> (Female, EU expert).

It is the first condition for consumers for healthy eating schemes to know how to feed according to conditions such as age, health status, and to be aware of the importance of this. The consumer who is conscious of healthy eating also shapes their preferences accordingly. Information on the subject is supported by

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<sup>17</sup> Kesinlikle sağlıklı değil ama mecburen alıyoruz. Ambalajlı gıdaları alıyorum ama abur cuburları, çipsleri az tüketmeye çalışıyorum. Yani mümkün olduğunca az tüketmek isterim ama şimdi vakit olmayınca ambalajlılara yöneliyorum.

<sup>18</sup> Bende şöyle bir algı var, ambalaja girmiş ürün kesinlikle koruyucu madde içeriyordur, raf ömrü uzun olsun diye kesin bir kimyasal bulaşmıştır, aldığım bakliyat bile ambalajlıysa onda bir koruyucu madde vardır diyorum.

<sup>19</sup> Ambalajlı gıdaları tüketirken kesinlikle için rahat değil, tamamen kesemiyorum ama bazen mecbur kalıyor insan.

<sup>20</sup> Zehir gibi, zaten uzun süre saklanabiliyor oluşu yeterince kuşku uyandırıyor, çocuktan sonra tamamen hayatımızdan çıkarmak istiyoruz, umarım başarabiliriz.

professional help such as dietitian as well as tv programmes and individual internet research. As Bakke et al. (2016) pointed out in his study, health concerns and awareness can affect food choices, with health-conscious consumers sometimes choosing foods on the basis of health or weight awareness rather than the flavors they prefer for themselves. In this respect, they prefer natural, unprocessed foods. But in interviews it is stated that this consciousness is formed by the desire not to have a weight problem rather than a healthy life goal.

“I didn't really know how to nourish, but I wasn't very interested, but when I started to gain weight, I didn't know what to eat, so I didn't know what to do, so I went to the dietician and I learned something under his guidance.”<sup>21</sup> (Female, statistician).

The State for a healthy diet of the society; in addition to training and information activities, detects problems and applies preventive policies. Based on the experience of an interviewee who has an obesity problem, the responses received on these issues have been discussed to what extent the current obesity prevention program and salt reduction program are directed.

“I didn't think about nutrition for a long time, but I had to get professional support when the obesity problem pushed me too hard... I know the obesity program that the government has implemented, but it hasn't been an area in my life where I've seen its impact.”<sup>22</sup> (Male, planning expert).

“...For example, in the salt reduction program, the reduction of salt in bread was very good in my opinion, it was tasteless at first because I normally like to

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<sup>21</sup> Aslında nasıl beslenmem gerektiğini bilmiyordum çok da ilgilenmiyordum ama kilo almaya başlayınca hangi gıdanın içinde ne vardır, ne kadar yemek gerekir pek bilgim olmadığı için ne yiyeceğim ne yapacağım bilemedim, diyetisyene gittim onun rehberliğinde bir şeyler öğrendim.

<sup>22</sup> Uzun bir süre beslenme konusuna hiç kafa yormadım ama obezite sorunu beni çok zorlayınca profesyonel destek almak zorunda kaldım... Devletin uyguladığı obezite programını biliyorum ama benim hayatımda etkisini gördüğüm bir alan olmadı.

eat salty, but then I got used to it, I feel that the sauce decreases in paste and some sauces.”<sup>23</sup> (Female, expert).

“...First, I learned the salt reduction program when the salt was removed from the tables at lunch in the institution where I worked. In other words, the idea is good, but it should not be applied as so intrusive, it should be done slowly, it can be used to if you cannot find the salted product.”<sup>24</sup> (Female, EU expert).

The most important factor affecting nutritional preferences was the child. All of the interviewees stated that they had an awareness with the child, that the food products they received had changed, and that the sensitivity increased when it came to the nutrition of the child. The decision of mothers is prominent in the child nutrition with the understanding that mothers are often the first guardians to develop and support the child's potential (Burman & Stacey, 2010) being observed. It has been seen in the answers that these decisions are being implemented by both parents.

“With my child, food shopping has become the most sensitive subject, I do not buy any packaged products that I do not like, the contents of which I know are harmful, I take maximum care that my child does not eat. Regarding vegetables and fruits, the situation is complicated. Unfortunately, I am trying to clean them with vinegar and carbonated water, at least to remove the pesticides on the surface.”<sup>25</sup> (Female, EU expert).

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<sup>23</sup> Mesela tuz azaltma programında ekmekte falan tuzun azaltılması bence çok iyi oldu başta tatsız geldi çünkü normalde tuzlu yemeyi severim ama sonra alıştım, salça ve bazı soslarda da hissediyorum tuzun azaldığını bence doğru bir uygulama tuzlusunu bulamayınca tuzsuza alışıyoruz, buna benzer uygulamalar çoğalsa biz de alışırız.

<sup>24</sup> ...İlk olarak çalıştığım kurumda öğle yemeklerinde masalardan tuz kaldırılınca tuz azaltma programını öğrendim, programın içeriğinde böyle bir uygulama yokmuş ama kurumda uygulandı, yemeğe gidenler cebinden tuz çıkarıyordu. Yani fikir güzel ama bu kadar müdahaleci olarak uygulanmamalı, yavaş yavaş yapılmalı, ürünün tuzlusunu bulamayınca zaten alışılır.

<sup>25</sup> Çocuğumla birlikte gıda alışverişi en hassas olduğum konu haline geldi, içeriğini beğenmediğim, zararlı olduğunu bildiğim hiçbir paketli ürünü almıyorum, çocuğumun yememesi için azami özen gösteriyorum. Sebze ve meyve konusunda ise durum karmaşıklaşıyor maalesef, onları da sirkeli ve karbonatlı suda yıkayarak en azından yüzeyindeki ilaçlardan arındırmaya çalışıyorum.

“After having children, our diet and food consumption trend changed to child-indexed.”<sup>26</sup> (Female, teacher).

“The foods I bought with the child changed, I didn't know what the daily milk was, for example, I was always buying long life milk. I didn't really know what it was, what it was when the child was a year old, I asked if it was boiled, I buy the child daily milk now.”<sup>27</sup> (Female, statistician).

It has also been stated by the interviewees that the consciousness of consuming healthy food with the child is not always able to continue in the parents' own diets.

“I make the yoghurt at home, we sometimes get ready-made yoghurt, but I definitely make the kid eat homemade yoghurt.”<sup>28</sup> (Female, housewife).

Organic food consumption in Turkey is low and irregular, and due to prices, only middle and upper-class consumers have access to organic food and this is limited. Consumers were also interviewed about the inclusion of organic food in the nutrition regime. The brand and certification of organic food is one of the characteristics noted. The reliability of the brand determined by an interviewee who consumes organic foods more regularly is effective in his preferences. For those who do not consume organic food regularly, certificates are effective in decision making. Among those interviewed with high income levels, all but one stated that organic food prices were the most influential factor in their consumption levels.

“.....The price of most organic foods is high, though my income is less than I would definitely not buy. 1 pack of pasta even normal 3 TL, organic 20 TL, I

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<sup>26</sup> Çocuk olduktan sonra beslenme ve gıda tüketim eğilimimiz çocuğa endeksli olarak değişti.

<sup>27</sup> Çocukla birlikte aldığım gıdalar değişti, günlük sütün ne olduğunu bilmiyordum mesela, hep uzun ömürlü süt alıyordum. Gerçekten bilmiyordum ne olduğunu, çocuk bir yaşına geldiğinde neymiş bu süt, kaynatılıyor mu diye sordum, çocuğa artık günlük süt alıyorum.

<sup>28</sup> Yoğurdu evde yapıyorum, arada bir kendimize hazır yoğurt alıyoruz ama çocuğa kesinlikle ev yapımı yoğurt yedirim.

buy a package for my enjoyment, but I can not take more.....”<sup>29</sup> (Male, employment expert).

“.....Because of the price of organic, for example, organic chicken weight comes much more expensive than red meat, when you think of this organic chicken once I buy it instead of meat I say I take it.....”<sup>30</sup> (Female, expert).

The inability to obtain the high prices in organic food for quality and flavor is also effective in choice.

“Even if I pay more for organic, I don't see performance to the same extent. For example, the price of organic eggs is very high, but I can never taste the eggs I eat in the village.”<sup>31</sup> (Male, planning expert).

Children have an influence on choosing organic food as well as creating a healthy diet. The choice of organic food for the child has gone beyond healthy eating and has become a stand-alone goal. In particular, some mothers have stated that they feel compelled to buy organic food for the child. Cairns et al. (2013) stated that women take responsibility as a project to protect the child from the harmful effects of organic feeding, the industrial food system, and to maintain healthy eating practices in their lives. It has also been determined in interviews that how the child is fed has become an important criterion for adequate motherhood. However, in interviews, it was observed that not only mothers but also fathers were sensitive to the child's consumption of organic food, meaning that the “child's nutrition” effect is more prominent in organic food selection than motherhood.

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<sup>29</sup> ...organik gıdaların çoğunda fiyat yüksek, benim gelirim daha az olsa kesinlikle almam. 1 paket makarnanın bile normal 3 TL, organığı 20 TL, bir paket keyfim için alıyorum ama daha fazla alamam.

<sup>30</sup> ...Fiyatı yüzünden çok düzenli tüketemiyoruz organığı, mesela organik tavuğun kilosu kırmızı etten çok daha pahalıya geliyor, böyle düşününce organik tavuğu bir kere alıyorsam sonrasında bunun yerine et alayım diyorum onu alıyorum.

<sup>31</sup> Organik için daha çok para versem de aynı ölçüde performans göremiyorum. Mesela organik yumurta fiyatı çok yüksek ama asla benim köyde yediğim yumurtanın tadını alamıyorum.

“Organic food is expensive, but I feel terrible when I don't feed the child the organics of certain foods, especially eggs and chicken.”<sup>32</sup> (Female, EU expert).

“I feel like if I don't get the kid to eat the egg organically, I'm ruining his health.”<sup>33</sup> (Female, chemist).

“...If we eat only by ourselves, we buy normal chicken, which is rarely but we never feed the kid with normal chicken, we buy organic chicken for him.”<sup>34</sup> (Male, planning expert).

Breastfeeding of the babies is also included in the scope of the food system working for consumers. It is possible for babies who consume breast milk instead of the food products purchased to get breast milk at a sufficient level through conscious mothers and breastfeeding policies. The fact that three of the interviewed mothers shared their experiences on this issue showed that the policies regarding the subject should be examined in the study. Breastfeeding training is considered to be sufficient, but it has been stated by those who are deemed that the recommendation of “breast milk only for the first 6 months” is very difficult with the existing milk permits and these permissions should be rearranged.

“.....When I think of healthy eating, I think I need to start with the breast milk requirement of my baby, my child is younger, maybe that's why I'm more sensitive about this. There is also information about how much breastfeeding is needed at birth and afterwards, it is okay, but I cannot say the same about

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<sup>32</sup> Organik gıda pahalı ama çocuğa özellikle yumurta, tavuk gibi bazı gıdaların organliğini yedirmedığım zaman çok kötü hissediyorum.

<sup>33</sup> Çocuğa yumurtayı organik yedirmezssem sağlığını bozuyorum gibi hissediyorum...

<sup>34</sup> ...Sadece kendimiz yiyeceksek normal tavuk alıyoruz o da nadiren ama asla ona yedirmiyoruz ona organik tavuk alıyoruz.

breastfeeding permits, I think they are inadequate. Working mothers, we have a hard time.”<sup>35</sup> (Female, statistician).

“It is recommended that only breast milk for the first 6 months and breastfeeding until the age of 2 is very good for, but sufficient permissions are not given in this regard. Unfortunately, the issue does not end only by providing organic food.”<sup>36</sup> (Female, EU expert).

Dietary patterns are changing, with food choices as well as other long-term factors not controlled by consumers. Examining this condition, called Nutrition transition, will be effective in the decisions to be applied on nutrition.

#### **4.2.2. Nutrition transition**

The long-term change in dietary patterns and dietary preferences is called nutrition transition. With age, generation, lifestyle change, differences in food systems and awareness, people's nutritional preferences change. All the interviewees stated that their dietary preferences had changed, but the reasons of this were different.

With age, the awareness of food safety and healthy eating was noted, as a result, foods that were thought to be healthier than those consumed when young began to be consumed. In the formation of awareness, only one interviewer has stated that informative public spots have an effect, and that news and expert statements that come out and sound on social media and TV are more effective than public spots.

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<sup>35</sup> ...Sağlıklı beslenme deyince bebeğin anne sütü ihtiyacından başlamak lazım bence, çocuğum daha küçük belki o yüzden daha hassasım bu konuda. Ne kadar emzirmek gerektiğine dair doğumda da sonrasında da bilgi veriliyor onda sorun yok ama emzirme izinleri konusunda ay nı şeyi söyleyemeyeceğim, yetersizler bence. Çalışan anneler, arkadaşlarımda da görüyorum bunu, çok zorlanıyoruz.

<sup>36</sup> İlk 6 ay anne sütü, 2 yaşına kadar da emzirmek çok iyi diye tavsiye ediliyor ama bu konuda yeterli izinler verilmiyor. Konu sadece organik gıda sağlayarak bitmiyor maalesef.

“...As a result of my level of consciousness increased, my fear of illness increased as I got older, and the gradually decreased indifference I had when I was young, my awareness of food increased. I already follow social media a lot, and if I see something in public spots, I search it.”<sup>37</sup> (Female, veterinary).

“...In fact, I was unconscious in the past, I realize that the news that has changed so much, for example, when tea is brought, no sugar is brought with it. Everyone warns each other that sugar is harmful, and when they hear them, people say 'yes I shouldn't consume it' over time.”<sup>38</sup> (Female, expert).

Monetary status is an important factor in food choices. If the person has awareness, he / she can consume food in accordance with his / her knowledge of food as his / her budget increases.

“...There's definitely been a big change in my food choices. We ate whatever we found in high school and university; we ate a lot of hot dogs in the school canteen. At the university, we ate relatively less but still the so-called "dirty food". When we were a student, we paid attention to the economic rather than the quality of the food, as our budget was limited. Our most important criterion was that the ingredients of the food we made at home were also cheap for the dinner we ate out. I knew these foods were not very healthy, but my financial means forced me to do so. But when I started working, my income increased, I started looking for quality and hygiene in food.”<sup>39</sup> (Male, planning expert).

However, even if there are no financial problems and awareness, the modern food system and current living conditions have made time deficiency a decisive

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<sup>37</sup> ...bilinç seviyemin yükselmesi, yaş alınca hastalık korkularının artması, daha gençken olan umursamazlığımın gittikçe azalması gıdalara karşı farkındalığımı artırdı. Sosyal medyayı zaten çok takip ederim, kamu spotlarında da bir şey görüyorsa onu araştırıyorum.

<sup>38</sup> Aslında eskiden bilinçsizmişim, bunu fark ediyorum çıkan haberler falan çok değiştirdi fikirleri, mesela artık çay getirildiğinde yanında şeker getirilmiyor. Şekerin zararı olduğu konusunda herkes uyarıyor birbirini, bunları duydukça insan zamanla `evet ben de tüketmemeliyim` bunları diyor.

<sup>39</sup> Gıda tercihlerimde kesinlikle büyük değişim oldu. Lisede, üniversitede ne bulsak yiyorduk, okul kantininde sosisliyi bol bol yerdik mesela, Üniversitede de nispeten daha az ama yine de “dirty food” denen şeyleri yiyorduk. Öğrenci olunca bütçe sınırlı, kalitesinden ziyade ekonomik olmasına bakıyorduk. Dışarda yediğimiz yemeğinde, evde yaptığımız yemeğin malzemelerinin de ucuz olması en önemli kriterimizdi. Bu gıdaların çok sağlıklı olmadığını biliyordum ama maddi imkânım beni buna zorluyordu. Ama çalışmaya başlayıp gelir artınca gıdada kalite ve temizlik arar oldum.

factor in nutrition. As Ranganathan et al. (2016) mentioned, with urbanization and increased incomes, feeding patterns will also change. With this change, processed food consumption, and demand for eating outside the home will also increase. Eating out of the house seems to be a solution in terms of time, but it is stated that habits change with the child.

“...When I was a student, I had no money to eat well, now I don't have time. I know what to eat, but I cannot bring food to the workplace every day, for example, my wife and I do not have such a time.”<sup>40</sup> (Male, trade expert).

“...When I was a student, I used to love to eat outside the house, and now I do, but now I'm going to places where I can eat better. If you don't eat at home in the evening, it's easy to eat outside and it's enjoyable both in terms of time and a change. We used to eat a lot outside before we have kids, but now we wonder what oil he uses, whether the kitchen is hygienic enough or something. And with that in mind, we started cooking more at home.”<sup>41</sup> (Male, employment expert).

“...I didn't care much about what I ate before or what I ate at home, but I try to choose foods that I think would be healthier for myself and my family with a sense of responsibility, especially after getting married and having children. There was not much difference between college years and work life in terms of my choice of food, but I can say that having children was a turning point for me. For example, I did not consume olive oil before, now my favorite food is light meals with olive oil.”<sup>42</sup> (Female, teacher).

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<sup>40</sup> İyi beslenmek için öğrenciyken param yoktu, şimdi de zamanım yok. Ne yemem gerektiğini biliyorum ama işyerine her gün yemek getiremiyorum mesela, eşimin de benim de böyle bir zamanımız yok.

<sup>41</sup> Öğrenciyken de ev dışında yemek yemeyi çok severdim şimdi de seviyorum ama artık daha iyi yemek yiyebileceğim yerlere gidiyorum. Akşam evde yemek yoksa dışardan yemek kolay oluyor hem zaman açısından hem de keyifli oluyor, bir değişiklik işte. Çocuktan önce dışarda çok fazla yerdik ama şimdi acaba hangi yağı kullanıyor, mutfağı yeterince hijyenik mi falan diye düşünüyoruz. Bunları düşününce de evde daha çok yemek yapmaya başladık.

<sup>42</sup> Önceden ne yediğimi ya da evde ne yendiğini çok önemsemezdim ancak evlendikten özellikle de çocuk sahibi olduktan sonra sorumluluk duygusu ile kendim ve ailem açısından daha sağlıklı olacağını düşündüğüm yiyecekleri tercih etmeye çalışıyorum. Üniversite yılları ile iş hayatı arasında yiyecek tercihim açısından çok bir fark yoktu ancak çocuk sahibi olmak benim için dönüm noktası oldu diyebilirim. Mesela önceden zeytinyağı tüketmeyen ben, şimdi en favori yemeğim zeytinyağı hafif yemekler.

In the studies mentioned in the literature section, it was investigated that health is an effective factor in food choices in people over 60-65 years of age (Chambers et al., 2008). However, the age group interviewees involved in this study also stated that they changed their diet due to health concerns.

“If I had time, I would definitely try to pay attention to eating even more healthy than this, and of course there may be a fear of getting sick with age. Because I think some foods can trigger diseases. For example, I thought that sugar always feeds cancer cells. Of course, thinking about our health in the environment of intensive work and stress is pushed into the background, and I think that work and stress affect people's diet in a fundamental way.”<sup>43</sup> (Male, trade expert).

“My awareness has increased in parallel with the emergence of some health problems. I have stomach discomfort, I thought it was related to my consumption habits. I try to consume more fiber foods. There was no such information before, I had no sensitivity.”<sup>44</sup> (Male, public employee).

The respondents are of the opinion that food in their own childhood is healthier than the current time. The reasons stated by the interviewees are the production of the person's own food, the low use of pesticides, the food industry and thus the profit purpose do not dominate the system. The reasons for this thought are the traditional and / or transitioning food system in the previous periods instead of the modern food system we are in and what this situation brings. A sense of trust in existing policies is also linked to this issue, and this assessment has been made in the related title.

“...My father sells pesticides; I know that the use of pesticides in agricultural products is very high. Since there is a lot of motivation to increase productivity

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<sup>43</sup> ...zamanım olsa kesinlikle bundan daha da fazla sağlıklı beslenmeye dikkat etmeye çalışırdım, tabi bunda yaş ilerledikçe hasta olma korkusu da olabilir. Çünkü bazı gıdaların hastalıkları tetikleyebileceğini düşünüyorum. Mesela şekerin her zaman kanser hücrelerini beslediğini düşünmüşümdür. Tabi yoğun çalışma ve stres ortamında sağlığımızı düşünmek arka plana itiliyor, iş ve stresin insanların beslenme düzenlerini temelden etkilediğini düşünüyorum.

<sup>44</sup> Benim farkındalığım biraz sağlık sorunlarının ortaya çıkmasına paralel olarak arttı. Mide rahatsızlığım var, tüketim alışkanlıklarımın alakalı olduğunu düşündüm. Lifli gıdaları daha fazla tüketmeye çalışıyorum. Önceden böyle bir bilgi de yoktu, hassasiyetim de yoktu.

in animals, they also have additional elements. I think food was more natural in the past.”<sup>45</sup> (Male, trade expert).

“I think that it is compromised to produce healthy food because everything is getting more and more monetary and profit oriented now it is more expensive to produce those natural products.”<sup>46</sup> (Male, public employee).

“I have the perception that food used to be healthier. Maybe I think that is because I live in a small place. In Amasya, I mean natural food, fruits and vegetables produced by my grandmother. We are experiencing the disadvantage of living in a metropolitan city in Ankara.”<sup>47</sup> (Female, EU expert).

The fact that the representatives of different generations have different food choices also leads to nutrition transition. At this point, the effectiveness of public policies in different generations may also vary. Some of the interviewees have stated that they think in parallel with their parents about their current sensitivity to eating natural and healthy food and have been criticized from time to time.

“Of course, there are different ideas, although we do not consume prepared foods very much at home, the definition of the modern meaning of the other ones are called ready food. They don't buy ready-made yogurt, for example, and if we do, they criticize us.”<sup>48</sup> (Male, trade expert).

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<sup>45</sup> Babam zirai ilaçları satıyor, tarım ürünlerinde zirai ilaç kullanımının çok fazla olduğunu biliyorum. Hayvanlarda da verimi artırma motivasyonu çok olduğu için onlarda da ilave unsurlar var. Eskiden gıdaların daha doğal olduğunu düşünüyorum.

<sup>46</sup> Biraz daha her şey parasal odaklı gitmeye başladığı için giderek çok daha fazla kâr amacı güdüldüğü için ve artık o doğal ürünleri üretmek de daha pahalı hale geldiği için sağlıklı gıda üretmekten taviz verildiğini düşünüyorum.

<sup>47</sup> Eskiden gıdalar daha sağlıklıydı algısı var bende. Belki de küçük yerde yaşıyorduk ondandır Amasya'da doğal gıda dediğimiz anneannemin ürettiği meyve sebze filan. Ankara'da, büyükşehirde yaşamının dezavantajını yaşıyoruz.

<sup>48</sup> Farklı düşünce oluyor tabii, hazır gıdaları her ne kadar biz evde çok tüketmesek de modern anlamdaki tanımının haricindekileri de hazır gıda diye niteliyorlar. Hazır yoğurt almıyorlar mesela biz alırsak bizi de eleştiriyorlar.

“Parents say that you have come to what we say when they see our quest for natural nutrition. Because they were eating naturally, they are already in Aydın, they do not have a problem to access healthy food, it is very easy, very fresh. There is a garden where they grow some crops; tangerines, figs, olives or something. Since we know what is used or not; it may have an external effect, the electric pole passes, it may have an effect, but we do not use pesticides.”<sup>49</sup> (Male, economist).

In addition, it is a conclusion drawn from the experience of the interviewees that the eating habits of the parents affect the child's diet in the future. In addition to the intergenerational food choices, there is also an intergenerational transition.

“We don't have a conflict in general, I think the food habit comes from the family anyway. I would like to pay attention to healthy nutrition.”<sup>50</sup> (Female, housewife).

Some of the respondents stated that they were criticized by their family elders for being very sensitive about their nutritional preferences. The determination made by Zarei and Ahmadi (2015) in his work explains this situation. The increase in education level in mothers is mostly related to eating modern foods. In contrast, in daughters, consumption of modern food decreases as the level of education increases. This may be due to the higher awareness of girls with higher education compared to their mothers.

“The first thing that comes to my mind is that I prefer olive oil, especially I try to get it from Mersin, my mother still claims that sunflower oil is healthy, and we discuss this very much. She says that if necessary, yoghurt can be bought

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<sup>49</sup> Anne babalar zaten dediğimize geldiniz diyorlar. Çünkü onlar zaten doğal besleniyordu, zaten Aydın'dalar, sağlıklı gıdaya ulaşma sorunları yok, çok kolay, çok taze. Bazı ürünler yetiştirdikleri bir bahçe var; mandalina, incir, zeytin falan. Ne kullanıp kullanmadığımızı bildiğimiz için; ha dışarıdan etki olabilir, elektrik direği geçer yakınından onun etkisi olabilir ama ilaç atmıyoruz.

<sup>50</sup> Genelde bir çatışmamız olmuyor, gıda alışkanlığı zaten aileden gelir bence. Onlarda dikkat ederdi sağlıklı beslenme konusuna ben de öyleyim.

and ready-made *ayran* can be bought; Yes, it can be bought but if I can do the alternative, it is not necessary but I can not convince her.”<sup>51</sup> (Female, teacher).  
“I don't want to give my child sugary things, and I inform our parents that sugar is harmful. It is said that you have eaten so much, nothing has happened to you.”<sup>52</sup> (Female, veterinary).

Where consumers shop for food is related to income status, urbanization and changing lifestyle. In interviews on this subject, in parallel with the study results mentioned before, it was seen that the supermarket was the primary choice when it came to food shopping. The most important reason for supermarket preference is to save time on shopping. There are two interviewees who think that the supermarket is more hygienic and reliable than the market and the grocery store. However, for some interviewees, shopping from the supermarket is perceived as a necessity, especially if it is not a time issue, it is stated that different options are desired. However, in some foods such as meat and eggs, different options are sought, and shopping is done in different places as possible.

“I do shopping at the supermarket, because it's all there, and I drive up and stuff it... I'd love to buy everything from the local origin, but I don't have much time, just trying to get the eggs from the people who brought them from the village, from the farm. There are no delicious, natural eggs in the market.”<sup>53</sup> (Male, planning expert).

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<sup>51</sup> İlk aklıma gelen ben zeytinyağı tercih ediyorum, onu da özellikle Mersin'den zeytinciden almaya çalışıyorum, annem hâlâ ayçiçek yağının sağlıklı olduğunu iddia ediyor, bunu çok tartışıyoruz. Gerektiğinde hazır yoğurt alınabileceğini, hazır ayran alınabileceğini söylüyor; evet alınabilir ama alternatif yapabilecekken almalıyım diyorum, ikna edemiyorum.

<sup>52</sup> Çocuğuma şekerli şeyler vermek istemiyorum ve anne ve babalarımızı şekerin zararlı olduğu konusunda bilgilendiriyorum. 'Biz bu kadar yedik, sizlere de yedirdik hiçbir şey olmadı' deniyor genellikle maalesef çatışma yaşıyoruz.

<sup>53</sup> Süpermarketten yapıyorum alışverişi, çünkü her şey var orda arabayla gidip doldurup çıkıyorum... Her şeyi yerinden almak isterdim ama o kadar vaktim yok sadece yumurtayı köyden, çiftliğinden getirenlerden almaya çalışıyorum. Markette lezzetli, doğal yumurta bulunmuyor.

“Vegetables and fruits in the market are both fresh and cheap, but I wish I could take it from the bazaar, but I need to wait for a certain day, I need to take the time to go to the market is practical.”<sup>54</sup> (Female, expert).

“I buy the food from the supermarket, but I buy the meat from the Meat and Milk Authority, it sounds better than the butcher. I buy eggs from an organic egg producing farm in Adana, via social media.”<sup>55</sup> (Male, economist).

Urban life forces consumers to take some options, but consumers are almost resistant to this situation in line with their opportunities and turn to other alternatives as much as possible.

### **4.3. Sustainability**

In order for the sustainable food system to function, consumption must also take place in a sustainable way, such as production. Changing consumer choices and expectations along with nutrition transition and consumer awareness lead to the production of foods whose production process is different. Consumers are particularly sensitive in the food sector and prefer products that can create a different value for themselves. Sensitivity about whether foods harm the environment in the process until they are ready for consumption, organic food choice, protection of local tastes and products and food waste are the subjects discussed within the framework of this study. There is no direct consumer policy regarding the sensitivity to environmental factors in food consumption. For this reason, the interviewees were not interviewed about policies but about their behavior and ideas as consumers.

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<sup>54</sup> Eti bir akrabamla birlikte kestiriyorum başka ete güvenemem... Pazarda sebze ve meyve hem taze hem ucuz oluyor keşke pazardan alabilsem ama onun için belli bir günü beklemek lazım, zaman ayırıp gitmek lazım market pratik oluyor.

<sup>55</sup> Gıdayı süpermarketten alırım, ama eti Et ve Süt Kurumu'ndan alıyorum kasaptan daha iyi gibi geliyor. Yumurtayı Adana'da organik yumurta üreten bir çiftlikten sosyal medya aracılığıyla alıyorum.

Four of the interviewees said they were sensitive about whether the production process of food create an environmental damage until it was ready for consumption. Others, except one, have stated that they pay attention to features such as packaging, plastic/glass bottles, rather than the process of agricultural production. The other interviewer stated that he was a vegetarian, changing his diet entirely due to environmental sensitivity. Studies have shown that vegetarian and vegan diets reduce land and water use and reduce greenhouse gas emissions. With this environmental sensitivity, the diet can be changed.

“I've changed my eating habits for a year. This awareness was because I was more sensitive to environmental issues than nutrition. My self-concerns about the exploitation of animals and my sensitivity to it increased and I began to feel uncomfortable with my own consumption. I somehow got the meat out of my life, despite everyone in my life. I have no friends who are with me. It was a very big decision for me. After that, they kept saying: Where to get the protein, where to get the B12, where to get those vitamins, minerals. I also do sports, up to 10-12 hours a week, high-effort sports so I was also scared myself, but I researched it, and I'm nourishing in consultation with a dietitian now. I didn't want to give up because eating meat now makes me so uncomfortable. Hopefully I can manage to be vegan as well.”<sup>56</sup> (Male, employment expert).

Another area covered by sustainable food consumption is the choice for organic food consumption. Consumers of organic products are grouped as environmentalists, consumers worried about chemical residues, those who turn to organic products for health reasons, those who care about human values (Netter & Deters, 2011). However, there are no consumers in the interviews who have stated that they prefer organic food with a view to sustainability. The concepts of organic food and natural food are mixed with each other. While organic food is

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<sup>56</sup> Ben bir senedir yemek alışkanlıklarımı değiştirdim. Bu farkındalık beslenmeden çok çevresel konulara duyarlılığımı arttırdığı için oldu. Hayvanların sömürülmesiyle ilgili kendimce endişelerim ve ona karşı duyarlılıklarım arttı ve rahatsız olmaya başladım kendi tüketimimden. Eti hayatımdan bir şekilde, hayatımdaki herkese rağmen, çıkardım. Hiçbir arkadaşım yok benim yanımda olan. Çok büyük bir karardı benim için. Ondan sonra sürekli proteini nereden alacaksın, B12'yi nereden alacaksın, o vitaminleri, mineralleri nereden alacaksın demeye başladılar. Bir de spor yapıyorum, haftada 10-12 saate varan, yüksek eforda spor yapıyorum. Onunla birleşince kendim de korktum ama araştırdım, diyetisyene danışarak besleniyorum şimdi. Vazgeçmek istemedim çünkü artık beni çok rahatsız ediyor et tüketmek. Umarım vegan da olmayı başarabilirim.

controlled at every stage of the value chain, natural food is food produced without any control over the lack of additives. Organic food is a preferred food with the goal of healthy eating rather than the awareness of consumption based on environmental factors.

“I don't know the difference between them. Natural food, for example, village eggs, not so many artificial things used, I think organic food is related to seeds, even if the seed is not organic, it is like organic to grow.”<sup>57</sup> (Male, planning expert).

“I buy organic food for a healthy diet. It never occurred to me whether or not it harms the environment in its production.”<sup>58</sup> (Male, trade expert).

Another headline about sustainable consumption is food waste. Food loss occurs in the process of food production, processing, transportation while food is wasted at the consumer level. Consumer awareness and practices are of primary importance in this regard.

“... We try not to waste food with my wife, we try to make our shopping daily, or there is definitely something left. Unfortunately, we can not always succeed.”<sup>59</sup> (Male, public employee).

Information activities and some campaigns on a small or large country basis to prevent waste also support the reduction of waste. A “bread waste campaign” has been carried out in Turkey. However, those interviewed stated that they had not

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<sup>57</sup> ...aralarındaki farkı bilmiyorum. Doğal gıda mesela köy yumurtası çok fazla suni bir şeyler kullanılmamış, organik gıda da tohumla alakalı sanırım, tohum organik olmasa da yetiştirilmesi organik gibi...

<sup>58</sup> Organik gıdayı sağlıklı beslenmek adına alıyorum. Üretiminde çevreye zarar verip vermemesi hiç aklıma bile gelmedi.

<sup>59</sup> ...yiyeceklerin israf olmamasına çalışıyoruz eşimle, alışverişimizi günlük yapmaya çalışıyoruz yoksa mutlaka kalan bozulan bir şeyler oluyor. Her zaman başaramıyoruz maalesef israf olabiliyor.

heard of this campaign or knew only by name. All of those interviewed stated that they had a consciousness not to waste food. However, they have trouble implementing the available information. This is due to shopping habits, the content of food labels and ignorance about the evaluation of excess food. They stated that they would take this information into account, except for two individuals, if there were information on the package about the protection and storage of foods. There are interviewees who benefit from their experience in storing food, as well as those who benefit from the internet.

“I can't be bold about consuming a product that I'm not sure is intact. I can't take the risk, especially if the child is going to consume that food. If there was information about how to store that food in the packaging, I would try to apply it, but I do not need it very much because I use the internet. In fact, it can be useful for mums and dads who can't fully use the internet.”<sup>60</sup> (Female, EU expert).

“...The campaign on waste is hard to succeed, a place where I can take away the excess food I have or otherwise evaluate, they have to show a method, which I think is very difficult.”<sup>61</sup> (Male, lawyer).

Public policies on food waste should be about protecting and storing food in order to implement it, and at the same time, and further clarification should be made on the relevant official sites, taking into account the trend towards internet research. It is important to organize the campaigns to include more concrete solutions as mentioned above.

It was observed that the interviewees paid attention to where the products they received were produced and where their raw materials were obtained. Local

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<sup>60</sup> Bozulmadığından emin olmadığım bir ürünü tüketmek konusunda cesur davranamıyorum. Özellikle çocuk da o gıdayı tüketecekse risk alamıyorum. Ambalajlarda o gıdanın nasıl saklanacağına dair bilgi olsa ben uygulamaya çalışırım ama internet kullandığım için çok ihtiyaç duymuyorum. Aslında interneti tam olarak kullanamayan anneler babalar için çok iyi olabilir.

<sup>61</sup> ...İsrafa dair kampanyanın başarılı olması zor, elimdeki fazla yiyeceği götürebileceğim ya da başka şekilde değerlendirebileceğim bir yer, yöntem göstermeleri lazım bu da çok zor bence.

character in food i.e. locally produced, sourced from local; cheese, fruit, oil etc. importance is given.

“... I try to get the butter from Malatya because my access to information is more transparent. Those who sell butter are people my parents know.”<sup>62</sup> (Male, economist).

“...I'm enlightened, I get a lot of things from there, I believe it's more natural and healthier. And there's the flavor factor. Either way, it's cheaper than buying it here. I also want the local producer to win, and without them, how will we get to these flavors.”<sup>63</sup> (Male, trade expert).

“I get tomato paste from Hatay, I get olives from Yalova, I get oil from Mersin. In Ankara, some things come packaged, hand-to-hand, waiting in cold storage. But when I get it from the original manufacturer, it feels safer. Of course, I think of them all as my own elders, I believe they were made like my grandmother's.”<sup>64</sup> (Female, teacher).

Biodiversity has an active role in protecting and sustaining important cultural and local factors in nutrition in order to ensure a sustainable diet. Maintaining the ecological balance and ensuring adequate food supply, as well as protecting biodiversity in the food use component of food security and in the consumption ring of the food chain, is an inevitable action in terms of proper nutrition. The two primary reasons for turning to local food in the answers given are the taste and the fact that the product is more safe than natural. The fact that the price is cheaper is also the reason for preference. It is also a matter of food choices that are given place in the feeding order for locally produced foods. However, the

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<sup>62</sup> ...tereyağını Malatya'dan almaya çalışıyorum bilgiye erişimim daha şeffaf olduğu için. Tereyağını satanlar ailemin tanıdığı insanlar.

<sup>63</sup> Aydınliyım birçok şeyi oradan getiriyorum daha doğal ve sağlıklı olduğuna inanıyorum. Lezzet faktörü de var tabii. Her halükârda buradan almaktan daha ucuza da geliyor. Bir de yerel üretici de kazansın istiyorum onlar olmazsa bu lezzetlere nasıl ulaşacağız.

<sup>64</sup> Hatay'dan salça getiririm, Yalova'dan zeytin alırım, yağı Mersin'den alırım. Ankara'da sonuçta paketlenmiş, elden ele, soğuk depolarda bekleyerek geliyor bazı şeyler, genellemeyeyim de. Ama asıl üreticiden aldığımda o daha güvenli geliyor. Tabii hepsini kendi büyüklerim gibi düşünüyorum, anneanneminki gibi üretildiğine inanıyorum.

issue is included under the heading of sustainability because it is necessary to meet the choices and to demonstrate the necessity for the environment to produce policies for the protection and maintenance of local food products and local producers. As Hellman-Tuiter (1999) points out, it is very important that consumers are directed to behave sensitively and considering the impact of their own behavior on other individuals of society. With such guidance, it is possible for consumers to be able to see their impact on society while meeting their own needs, and to be able to carry legal and environmental compliance and assess social cost when analyzing a product during purchase.

#### **4.4. Consumer Role in the Food System**

The importance of the role of the consumer in the food system is one of the reasons for this study. It has been explained in detail in previous titles that consumption in the food chain is just as important as production. In this section, what consumers think about their role in the food system, how conscious they are about their rights, how much they think they affect the system as consumers are analyzed. This awareness is important in terms of articulating demands and directing policies.

How much consumers know and use their rights determines their position in the system. It is important to know and benefit from these rights as well as to make legal arrangements to protect consumers. The consumer needs to embrace their rights and responsibilities together in order to be fully aware. It will be very difficult for the consumer to protect their rights in the long term if they do not embrace their responsibilities (Mohan & Suganthi, 2013). When consumers are aware of their rights and responsibilities, they force them to produce products that are more suitable for them (Makanyeza, 2015). First of all, the issue of the exercise of rights in the case of a defective food product was discussed. According to the current legal regulation, if there is a dispute with the place of

purchase of the product, the consumer is referred to the arbitration committee. Two of those interviewed stated that they knew what to do in order to exercise their rights following a change or return step. Others think that they will investigate and learn their rights when they need to, and that there is no need to learn because two people think it won't work. Other mentions of the subject are as follows:

“If the price is high, like electronic goods, I will return it and use my rights to continue, but I will not bother if the place I bought the food is not close.”<sup>65</sup>(Male, planning expert).

“... If there was no time shortage, we returned what we bought, we complained and they evaluated it.. Some of them have refunded fees, so we have run a mechanism. If we didn't get an answer, we'd probably at least have an initiative on the internet.” There is a complaint site, for example, there, I would write my complaint about that company. One thing I would give to take away directly and take away hard copy, I guess I couldn't do it again in time and laziness. But if there was awareness, for example, if the public had such a platform, I would quickly criticize and refer to that platform that I would directly reflect the information.”<sup>66</sup> (Male, public employee).

It appears that there is a time problem in the general sense, as well as doubts about the benefit of the rights being exercised. As mentioned above, adaptation of the exercise of rights to the conditions of the time, policies aimed at developing alternative methods can encourage consumers to exercise their rights.

The fact that consumers think they have a strong role in the system will cause them to take more responsibility and voice their demands, believing that they can

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<sup>65</sup> Bozuk çıkan şeyin fiyatı yüksekse, yani elektronik eşya gibi, iade eder ve devamında da haklarımı kullanırım ama gıda için aldığım yer yakın değilse uğraşmam.

<sup>66</sup> ...zaman sıkıntısı yoksa yaşadığımız hadiselerde götürdük biz, şikâyet ettik, onu değerlendirdiler de. Kimi ücret iadesi de yaptı, öyle bir mekanizma yürüttük. Eğer cevap alamasaydık muhtemelen en azından internet ortamında bir girişimimiz olurdu. Bir şikâyet sitesi var mesela, oraya, o firmayla alakalı şikâyetimi yazardım. Doğrudan götürüp hard copy götürüp vereceğim bir şey, yine zaman ve tembellik onu yapamazdım herhalde. Ama bilinirlik olsa mesela, kamunun böyle bir platformu şikâyet var gibi, çabuk eleştirip bilgiyi doğrudan yansıtacağım o platforma başvururdum yani.

make some decisions in line with their expectations. Four of those interviewed believe that consumers have no role in the availability of safe food. They argue that it is necessary to be a manufacturer to influence the process, and that consumers can do nothing but choose one of the options offered to it. Other interviewees think the consumer will be effective in changing the process. But they have different views on how to do this. Apart from the idea that individual efforts are enough to change things, there is also the idea that results can be achieved through a collective effort.

“I think every individual will contribute to change the process. I believe that supply will definitely increase if we support the products that make efforts to become safe food and increase the demand...”<sup>67</sup> (Female, teacher).

“I think society is capable of everything. Access to safe food is a right, and I think that every individual can influence the process according to their own possibilities in terms of obtaining the right. For example, companies are now accessible, we all have the possibilities to get information about the safety of food we consume, to disclose an unsafe product, to protest, and when this reaction becomes collective, it has a greater impact than we think...”<sup>68</sup> (Female, EU expert).

It is also thought that the consumer has an important role in the system, but there are some difficulties in being able to act collectively in Turkey. It is seen that consumer organizations are very passive in this regard and fail to realize their organizational goals. Consumer organizations are guiding the consumer's choice through which controls the safe food is presented, which labels and documents the consumer should pay attention to when buying the food, and what rights they

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<sup>67</sup> Her bireyin süreci değiştirmek için katkısı olacağını düşünüyorum. Güvenilir gıda olma yolunda çaba sarf eden ürünlere destek verip talebi artırabilirsek arzın da mutlaka artacağına inanıyorum.

<sup>68</sup> Toplumun her şeye muktedir olduğunu düşünüyorum. Güvenilir gıdaya erişim bir haktır ve hakkın alınması konusunda her birey kendi imkanları doğrultusunda süreci etkileyebilir diye düşünüyorum. Örneğin firmalar artık erişilebilir durumdadır, tükettiğimiz bir gıdanın güvenilirliği ile ilgili bilgi alma, güvenilir olmayan bir ürünü ifşa etme, protesto etme gibi imkanlara hepimiz sahibiz ve bu tepki kolektif bir hal aldığında sandığımızdan daha büyük bir etkiye sahip.

have in the food they consume. In addition to structural problems, food safety technical issues such as the lack of knowledge of consumers in the face of the power of scientific personnel of food producers also adversely affect their activities.

“For example, when I know that there is a good egg somewhere, a good quality egg, I share it with my friends, so that you can get it here. This increases demand and becomes an incentive for producing and selling quality food. So maybe he will refer others to him. Otherwise it seems very difficult to me, like the producer cooperative, a consumer cooperative. While I cannot even do this work on the manufacturer side, I think it would not be easy to do it on the consumer side. Already doing consumer associations in Turkey have no idea. I wish they could work effectively.”<sup>69</sup> (Male, lawyer).

“I think that the very different level of income and awareness of consumers in our country is an obstacle to organized action.”<sup>70</sup> (Male, economist).

The strong role of consumers in the food system is related to the priority of the policies implemented and the establishment of solutions to the problems. Similarly, active participation by consumers will increase consumers' confidence in policies at a national level. Therefore, the increase in the government's willingness to participate in consumer and sector views on food control is one of the most important public policies. Therefore, confidence in policies and expectations from policy makers need to be analysed.

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<sup>69</sup> Ben mesela bir yerde iyi yumurta olduğunu, kaliteli bir yumurta olduğunu bildiğim zaman arkadaşlarımla da paylaşırım, buradan alabilirsiniz diye. Bu da hem oraya talebi artırır hem de kaliteli gıda üreten ve satan için bir teşvik unsuru olmuş olur. Böylelikle belki diğerlerini de ona sevk eder. Diğer türlü bana çok zor geliyor, üretici kooperatifi gibi tüketici kooperatifi de olsun. Bu işi üretici tarafında bile yapamazken tüketici tarafında yapmak çok kolay bir şey olmaz diye düşünüyorum. Zaten Türkiye’de tüketici dernekleri ne yapıyor hiçbir fikrim yok. Keşke etkin çalışabilseler.

<sup>70</sup> Ülkemizde tüketicilerin gelir ve bilinç düzeyinin çok farklı olmasının organize hareket etmenin önünde engel olduğunu düşünüyorum.

#### **4.5. Expectations and Trust in Policies**

People's confidence in policies will encourage them to make the right food choices. In the interviews, it was observed that there was a lack of confidence in the audits of the authorized units of the state, both in terms of food safety and the accuracy of the labels (village eggs, organic walnuts, etc.). As Zachman & Østby (2011) mention, Giddens stated that our security experience is based on a balance of trust and acceptable risk. In recent years, the food sector has been an increasingly serious area of scrutiny of what constitutes this balance. Growing food-related scandals and fears have led to a significant decline in the public's confidence in food, although there has been more and more work to ensure the safety of food. Although we have partial knowledge of the production process, we consume food every day. Therefore, in our food consumption, we need to rely on food safety, or at least assume that the risk of developing a foodborne illness is low. Giddens meant this when he defined safety as a balance between trust and acceptable risk.

All of the interviewees stated that they did not find the audits adequate or did not trust the results. As Rodríguez-Entrena (2013) states food consumers may think negatively about health and environmental risk if they are not inadequate or not knowledgeable about new technologies. This perception worsens with the low level of trust in the authorities responsible for the implementation of these technologies and the food audits.

Modernization is an ongoing process, independent of the preferences of people, and containing all kinds of dangers and threats. In this journey, it means accepting the risks of technological developments as well. The way to minimize these risks is to act consciously and use it consciously. In a climate of uncertainty, people have become more preoccupied with their future, and a sense of confidence has become more desirable. This uncertainty has also affected the food safety we consume, our nutrition, and therefore our health. Increasing

population, climate change, declining resources have led to questioning the functioning of food systems around the world. Fast-moving industrialization has surrounded everything we eat, drink, and eat agricultural protection drugs, chemicals and food additives. In parallel with technological developments, especially in agriculture, more chemical and resource use applications have been started. Chemicals used in excessive amounts to increase the amount of product taken in the unit area have caused contamination of water and soil resources, and plant health has also been adversely affected. Decreased biodiversity and genetic interventions for food production have led to a process in which the results cannot be clearly determined.

What exactly happens to the future of these foods and their impact on our health is not certain. In this sense, consumers' sense of confidence has been shaken. There are different reasons for mistrust in interviews. Consumers are suspicious of products sold under names such as Ayaş tomato and Kaman Walnut. It is stated in interviews that many of the products mentioned in organic food choice mentioned in the title of food choices are not organic and certificates are not trusted. In addition, rarely performing food inspections is seen as a major problem. Because the inspections are not done frequently and with more samples, only a result covering the period of the audit can be obtained. This leads to a periodic safe food supply. Another problem is that even the big food firms' products are spoiled.

“It's something I've come across recently. A famous brand X, although the last consumption date has not come, for example, the product was fusty. So, there was a big problem with the move, the meat product, the moldy, the green inside. X brand is also one of the brands in the market called reliable brand. When I was between the two brands, I preferred X. It seems to me that if these are happening in such big brands, the controls are not very good.”<sup>71</sup> (Male, lawyer).

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<sup>71</sup> ...yakın zamanda denk geldiğim bir durum. Çok meşhur X markasının, son tüketim tarihinin gelmemiş olmasına rağmen ürün küflüydü mesela. Demek ki taşınmada büyük problem yaşanmış ki, et ürünü, küflü, yeşermiş içi. X de piyasada güvenilir marka olarak adlandırılan markalardan biri. İki marka arasında kaldığım zaman X'i tercih ediyordum. Böyle büyük markalarda bile bunlar oluyorsa denetimlerin durumu pek iyi değil gibi geliyor bana.

The Ministry of Agriculture and Forestry periodically discloses the companies that fail to pass the inspections and that it finds problems on its website. Three of those interviewed said they followed these lists, two said they knew about these audits but did not review them, and others said they were not aware of such an application. Some criticisms have been made regarding this method of the ministry.

“If something is to be done in this regard, the state must impose sanctions. If the person is selling unsafe food, it does not matter if the state discloses it. It will either ban its production or impose a huge penalty. Control must be from the beginning. It is meaningless for me to constantly go to that site and say that this product is harmful and the other has this problem.”<sup>72</sup> (Female, EU expert).

“I'm trying to figure out which brands were exposed. But I don't know any brands, none of them are products I know. So very interesting. There is no problem in any period of big company foods we consume all these small companies, unknown brands are problematic this does not sound very convincing to me.”<sup>73</sup> (Male, employment expert).

Issuing non-deterrent sanctions after inspections prevents inspections from being encouraging for producing safe food. In addition, the disclosure of only small and local firm names significantly reduces confidence in the adequacy of audits. Providing information about the announced companies, providing a detailed explanation of the places of sale, such as the preparation of a more transparent list will affect the consumer in a positive way.

Another issue that reduces confidence in policies is food poisoning which people see and experience in their own environment and is also reflected in the media.

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<sup>72</sup> Bu konuda bir şey yapılacaksa devlet yaptırım yapmalı, kişi problemleri bir gıda satıyorsa bunu ifşa etmesinin çok bir önemi yok. Ya üretimini yasaklasın ya da çok büyük ceza versin. Baştan denetim olsun. Benim devamlı o siteye girip de bu marka da şu ürün zararlıymış öbüründe şu sorun varmış demem çok anlamsız.

<sup>73</sup> İfşa edilen markaların hangileri olduğunu bulmaya çalışıyorum. Ama hiçbir markayı tanımıyorum, hiçbiri tanıdığım ürün değil. Çok ilginç yani. Tükettiğimiz büyük firma gıdalarında hiçbir dönemde hiçbir sorun yok hep bu küçük firmalar, bilinmeyen markalar sorunlu bu bana pek inandırıcı gelmiyor.

As stated Kjærnes et al. (2007) mentioned; in a food scandal food experts and consumer organizations are expected to tell the truth. A majority could not be obtained in the explanations regarding the trust in the institutional authorities. Politicians, mass media, and commercial actors are suspected of telling the truth. One interviewee stated that even in cafes and restaurants, which are very popular, have many branches and are very preferred, there is a lot of food poisoning. It is also stated that there is a problem of trust in the statements made by the competent authorities regarding food poisoning, which was widely reflected in the media during the interviews.

“I don't think inspections are enough. For instance, this whole spinach poisoning thing came up. There's talk of weed, but there's information that there's pesticides elsewhere, that there's pesticides on it, that sort of thing. There are certain pesticides that are not trusted by the state's explanations, we say that pesticides have been used more.”<sup>74</sup> (Female, veterinary).

The issue of how far the 174 Call Center was known by the interviewees was analyzed in the title of food safety. Those who knew this practice and learned during the interview stated that they would not apply to this center because they did not have confidence that their application would be finalized. An interviewee who reported a call to 174 Call Center shared her experiences and stated that her trust was shaken.

“While traveling intercity, we ate meatballs somewhere in Manisa, the taste seemed sour and spoiled. Then I called 174 on the way, I said, I complained. The person on the phone told me that the product will intervene only if it is microbiologically damaged and if it produces poisoning. Afterwards, I was

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<sup>74</sup> Ben denetimlerin yeterli olduğunu düşünmüyorum. Mesela bu ıspanak zehirlenmesi mevzusu ortaya çıktı. Ottan bahsediliyor ama başka yerde de pestisit olduğu, bunun üzerinde tarım ilacı, bu tarz şeylerin olacağına dair bilgiler var. Devletin açıklamalarına güvenilmiyor kesin tarım ilacı vardır, tarım ilacı fazla kullanılmıştır diyoruz.

informed that there was nothing in the product, but I cannot trust its accuracy.”<sup>75</sup> (Female, veterinary).

As Al&Küçük (2019) examined that “...consumers and producers have come under more and more pressure as companies dominate, declining government support in agriculture and increasing food insecurity in Turkey. In addition, consumers are exposed to news reports about the repatriation of exported food products to meet the food safety criteria of the respective countries”. The interviewees made explanations in accordance with the findings of this study. There is a concern about food products and a distrust of public officials. Accordingly, they also announced their expectations.

“I am very upset about the news about our fruit vegetables from Russia, the Netherlands or elsewhere, because they are not healthy and safe, they turn around and we eat them.”<sup>76</sup> (Male, employment expert).

“It came to my mind that the fact that the previous mayor said ‘drink this water well, I drink it’ is not a reassuring behavior for me. The competent authority should inform public that it has been tested. Ensuring that transparency, knowing the audit process, including these in public spots or being an accessible platform for that information; including on the web pages of the authorized ministries reduces my concerns.”<sup>77</sup> (Male, trade expert).

In order to avoid stoking the unsafe environment that exists in modern life, competent public authorities need to take steps towards transparency and

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<sup>75</sup> Şehirlerarası yolculuk yaparken, Manisa’da bir yerde köfte yemiştik, tadı ekşi ve bozulmuş gibiydi. Sonra yolda 174’ü aradım, söyledim, şikâyet ettim. Telefondaki kişi bana ürünün ancak mikrobiyolojik olarak bir bozukluk halinde ve zehirlenme oluşturması halinde müdahale edeceklerini söyledi. Sonrasında bana dönüş yapıldı üründe bir şey olmadığına dair ama doğruluğuna güvenemiyorum.

<sup>76</sup> Rusya’dan, Hollanda’dan ya da başka yerden dönen meyve sebzelerimizle ilgili haberler beni çok üzüyor çünkü sağlıklı ve güvenilir olmadıkları için dönüyorlar ve onları biz yiyoruz.

<sup>77</sup> Aklıma şu geldi, bir önceki belediye başkanının ‘bu su sağlıklı bakın ben de içiyorum’ deyip içmesi, benim için güven telkin edici bir davranış değil. Onun test edildiğine dair yetkili kurumun kamuyu bilgilendirilmesi lazım. O şeffaflığın sağlanması, denetim sürecini biliyor olmam, kamu spotlarında bunlara yer verilmesi ya da o bilgilere erişilebilir bir platform olması; yetkili bakanlıkların web sayfalarında yer verilmesi endişelerimi azaltır.

independence. The autonomous structure of food inspection authorities and auditors ensures that activities are conducted impartially.

As Frewer & Van Trijp (2006) states that trust is not just based on risk assessment. Communication and transparency are also essential. A dialogue with stakeholders, including consumers, is necessary about potential risks. Increasing the participation of consumers in decision-making processes is also a confidence-building method. In this direction, it is important to establish formal platforms where they can express their views and see their ideas come to life. In the interviews, people were asked about their expectations from public authorities for this purpose.

First of all, it is important that the control mechanisms work well and that the controls are carried out from the beginning of the food chain and from the beginning of the production. The reward and punishment system against food producers should be ensured to encourage those who produce safe food and to deter those who produce unsafe food. It is also part of the establishment of this mechanism that policymakers develop themselves without breaking away from evolving science, technology and living conditions.

In order to ensure safe and healthy food supply, policies that encourage farmers in agricultural production must be implemented. Another expectation is to ensure that the food companies are reliable, albeit with rules and sanctions, in order to prevent them from working entirely for profit.

It is thought that social media, which is an indispensable source of information today, will be as effective as tv in publicizing the practices of the competent authorities.

The common expectation of all interviewees is to be sensitive about children's food consumption. They are concerned about sales of unhealthy food in school canteens continue despite decisions taken by the relevant ministries, and that there is no audit of the sale of harmful food within their reach in stores that cater to children.

Educating children about healthy eating and food selection and raising their awareness are also among the expectations. The findings of Hayta (2009) explain the expectations: If children and young people are not adequately prepared to live in the world of today and tomorrow, then it is impossible to talk about the benefits of education. It is necessary to make the education system relevant to the daily life of the student and to allocate a fundamental place to consumer education within this system. An educational institution should follow the principles of sustainable consumption as a whole, including teachers, students, administrators, other employees and families. Non-formal education institutions should also be supported as they are a complement to formal education. Mass media is an important force in guiding consumers' choices and lifestyles, especially children and young people. Therefore, mass media should be mobilized to communicate important messages and reliable information about sustainable consumption.

The prevailing opinion is that it would be much more beneficial to start education at a young age. However, it was stated by the interviewees that it would be beneficial to create awareness in consumers and to conduct consumer education with effective methods in future ages.

## CHAPTER 5

### CONCLUSION AND POLICY RECOMMENDATIONS

In this study, major aim is to analyze the interaction between consumer behaviors and public policies towards food consumers in Turkey. With this aim the consumption dynamics are examined pursuant to the sustainable food systems in Turkey.

In the literature, the social dimension of food is generally evaluated in the context of food security and factors that affect consumer choices. Many studies have been conducted in the base of food security dimensions such as availability of food and economic accessibility, and solutions of social aids like food aid and cash transfers have been suggested. In this thesis, the subject has been analyzed in the scope of approach to the food systems. Also, public policies at the macro level and preferences and expectations of consumers at the micro-level are examined. In addition, utilization dimension of the food instead of the availability and access were analyzed within the context of safe food, healthy eating. The production, processing and distribution dimensions of the food value chain and the policy analysis regarding these stages share a large percentage in the scope of the food system. In this regard, it is essential to analyze this topic by taking into account the consumption dimension

There are studies in the literature about factors such as age, income, generation difference, urbanization, education level, gender and parenthood that affect food preferences. The sampling of interviewed people was determined by taking these factors into consideration except poverty and social aid. They were also selected from among well-educated and high-income individuals living in the urban

areas. In-depth interviews have been conducted in order to obtain detailed findings regarding both consumption dynamics and the effects of the policies. Utilization dimension of food security has been analysed according to the preferences and priorities of these selected individual consumers. Also policies about food security which can serve to the society's welfare were analysed. As a result of this research, some suggestions are made which could be beneficial for this field.

One of the important conclusions of the research is that respondents believe that a diet based on safe and healthy foods can be ensured with individuals who are cautious about the food that is supplied in the markets. They also emphasized that the authority who made the research about safe and healthy food and announced the safe foods should be also trustable. Besides, the awareness and consciousness level of the food consumer is very crucial in this regard. The more the consumers are educated the more awareness they will acquire. They would affect policies in this direction and hence, the interaction will increase. It is thought that it is important for children to start their education through educational institutions from the earliest age. Also, it is crucial to educate children since they will be future's, decision-making consumers.

The factor of being a parent changes individuals' preferences totally, hence, the solid information should be transferred to the parents by the authorized institutions in order to prevent information pollution in this area. In the scope of food literacy, it will be beneficial to provide training to the consumers according to their age and gender. In addition, gender factor is a policy area that should be mentioned specially in training sessions due to its mothering dimension. By making municipalities more actively engaged in this topic, it is possible to identify the demands and expectations of customers in each area and enhance awareness and training programs on food. In accordance with this, in order to encourage breastfeeding, which is the first step in healthy dieting, the

rearrangement of milk allowances for working mothers and establishment of kindergartens where babies are also be cared in the workplaces are needed.

Differentiation of policies according to the factors that can affect food choices will increase the interaction with the consumers. Like gender factor, age and generation difference can also lead to changes in the food priorities. Nutrition transition, which is defined as; leading the production by taking into account the younger generations' intense interest in natural and organic products, their attitude of being environmentally sensitive sustainable food consumers and their demand for locally produced foods, will be an effective policy. Due to the increase in the habit of eating outside the home, menus where nutrient contents are specified and increasing the controls in the cafes and restaurants will contribute to healthy nutrition. It is important to create policies like providing suitable economic conditions for organic food production and increasing local production to provide food to the shorter accessing points in the context of sustainability. In order to reduce individual food waste, product information can be updated, and more local activities can be incorporated in place of countrywide initiatives. Notifying the older generation about these demands and increasing awareness about the foods provided with the latest trends would make it easier for them to pursue the new policies enacted.

In the context of food, preventive policies can be implemented in more areas to regulate the external domain of consumers rather than the individual domain. Resolutely implication and monitoring of preventive policies such as fighting against obesity, the absence of harmful foods in canteens will contribute to the achievement of a healthy society aim.

Social media has become the first information and news source for the people urban and high educated who are in the scope of this study. In order for scientific studies and reports of authorized institutions to become a source of information,

the availability of these resources on the internet and social media can be increased and fast access can be provided. If this platform is used more actively by related authorities, accessing to the true information will be easier. Public spots in TVs can be used more effectively in terms of content and scheduling of broadcasting to address the whole community considering social groups that do not have easy access to information. In addition, the fact that the source of information for urban and educated consumers is social media shows that it may be beneficial to conduct different researches on the sources of information about the food preferences of the rural and low-educated consumers and how they tend to their consumption habits and to create policies in this direction. While consumers trust the information they access on the internet and determine their preferences accordingly, there is mistrust towards the units in the process of making food ready for consumption. The producer, marketer and even the consumer with his/her preferences in the food value chain are responsible for the food safety policies. In this study, in which the policies were discussed, it was revealed that the mistrust regarding the safety of foods and the misleading labels is more related to food policies. Giddens stated that our security experience is based on a balance of trust and acceptable risk. The food sector has been an increasingly serious area of scrutiny of what constitutes this balance. Growing food-related scandals and fears have led to a significant decline in the public's confidence in food, although there has been more and more work to ensure the safety of food. Giddens' discourse of "trust" is discussed in this study, in which policies are evaluated, in terms of the lack of trust in the policies and their effectiveness rather than the actors in the food chain, including themselves as consumers. Various studies can be conducted to evaluate the trust in actors in the food chain and also the individual responsibility awareness of consumers in their healthy food preferences. Policy transformations and new implications in this direction can provide a positive transformation.

There is a lack of confidence in particular food controls. Establishing the information network to cover consumers will reduce concerns. After strengthening of information and communication network, sensitivity towards food is increased. Thus, transparency in production and audit processes has become more and more crucial. This situation leads to a decrease in trust in policies and turns into an obstacle for politicians in terms of reaching their goals. Escalating audits starting from the production stage is one of the strategies to eliminate insecurity concerns towards food safety. Thus, it is critical that audits are performed in full compliance with laws and regulations and that the customer recognizes this discipline. Operating in accordance with the allocation of duties among the units will remove the ambiguity about the authority.

Therefore, successful policies will be established, and it will also be clear which institution is qualified in which subject in society's perception. To maintain confidence, it is also necessary to carry out assessments and audits on food with independent institutions and employees rather than ministries.

Building trust and active participation of society to the food system support each other correspondently. While public policies have an important place in the availability and utilization of safe and nutritious food and healthy eating, civil society initiatives and alternative networks are increasingly effective. These initiatives are especially important in order to increase the awareness of sustainable food consumption among consumers, to increase transparency in information flow and to enable consumers to have a greater role in the system. The more consumers are taking part in decision-making processes the more they see that their ideas and expectations are noticed. This will increase the communication between consumers and policymakers, and they will ask for getting more conscious and even will organize for seeking their rights. The organizations, which are not currently active in the country, may be activated in this way.

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## APPENDICES

### APPENDIX A: IN-DEPTH INTERVIEW QUESTIONS

- 1- Personal information about the person interviewed:
  - 1-a) Gender
  - 1-b) Age
  - 1-c) Education
  - 1-d) Job
  - 1-e) Monthly Household Income Level (0-4000/4001-8000/8001-10000/10001-15000)
  - 1-f) Marital Status
  - 1-g) Number of Children
- 2- Have you heard the concept of food security/safety before, can you explain what it means?
- 3- Do you follow programs and publications related to safe food? From what sources do you prefer to get information about safe food? (tv, social media, academic articles, ministerial briefings, public spots)
- 4- Do food ads influence your behavior to include them in your diet? Can you explain by example?
- 5- Do you know which institution in our country control the safety of food? Do you find the controls adequate?
- 6- Have you heard or used the 174 Call Center, TürKOMP (National Food Composition Database) applications and the School Milk, Grape program? If you know, do you think the applications work effectively? What are your views about the program, is it useful to reproduce similar applications?
- 7- Where do you prefer to buy food? Can you explain how safety foods have an effect on this preference? (Neighborhood market, organic bazaar, market, supermarket, butcher...)
- 8- Are you aware of food safety certificates? Do you pay attention to these in the foods you consume? (HACCP, Good Agricultural Practices, ISO 9001, ISO 14001, ISO 22000...)
- 9- What are the criteria you pay attention to when buying foods? (production date, expiration date, ingredients, additives, brand, energy and nutrients, quality standards, whether they pose an environmental risk during production, instructions on the packaging...)
- 10- Do you think that the content of the food you will buy is adequately and clearly explained on the label, what are your suggestions on this issue?
  - 10-a) Do you think packaged foods are healthy? Can you explain why their share in your diet is more or less?

- 11-** What is your idea about natural food and organic food? Can you explain how important it is in your diet, why?
- 12-** What do you pay attention to when buying organic food? (Price, certificate, brand, etc.)
- 13-** Do you know how to nourish according to your health status, profession, age and gender, what kind of foods you should consume? From what source do you obtain this information?
- 13-a)** Does the increase your sensitivity to food content in your food shopping for your child? Does this change the foods you buy?
- 13-b)** Do you have any idea that foods were healthier in earlier times? If there is, why? Do you distinguish between family elders on your food preferences?
- 13-c)** Did your food preferences differ over time? (Increase/decrease in ready-to-consume food, increased sensitivity to production process, brand..). If it happened, what are the reasons? (awareness, change in income level, health status, desire for long life...)
- 14-** Do you care about the local character of food? (For example, buying tulum cheese from Erzincan, apricot from Malatya). If you're paying attention to this, can you explain the reasons?
- 15-** Do you think you have sufficient knowledge of food preservation and storage? Where do you get information about this? Do you think the sources of information are sufficient? (Waste campaign) do you think it would be useful to have information on how to store food on the package?
- 15-a)** Do you buy small amounts of food at frequent intervals depending on your need, do you prefer to buy large amounts and keep them at home? Does the question of waste have an effect on this preference?
- 15-b)** How do you go about foods that you can't be sure are spoiling at home? (discard all, heat and consume again, discard only the broken part, etc.)
- 15-c)** What kind of attitude do you follow if the product you buy is broken? (return, complaint to higher agencies, throw away...)
- 16-** Do you think you have a role as a consumer in the availability of safe food? How do you think you can influence the process?
- 17-** Are you aware of your rights to access the food you prefer as a consumer? Do you exercise these rights? If you exercise them, are you getting the result? / If not, what are the reasons?
- a) By what means do you think it will be more effective to explain your rights? (social media, public spot, sms...)
- 18-** How should the decisions and practices of the higher authorities be for your adequate and healthy diet as a consumer? What are your expectations from them (guidance, audit, training, information, awareness, young-child target in the production chain) Please explain your comments and suggestions.

## APPENDIX B: APPROVAL OF THE METU HUMAN SUBJECTS ETHICS COMMITTEE

UYGULAMALI ETİK ARAŞTIRMA MERKEZİ  
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Konu: Değerlendirme Sonucu

Gönderen: ODTÜ İnsan Araştırmaları Etik Kurulu (İAEK)

İlgi: İnsan Araştırmaları Etik Kurulu Başvurusu

Sayın Prof.Dr. Hediye Sibel KALAYCIOĞLU

Danışmanlığını yaptığımız Nihan Atay HASPOLAT'ın "Sürdürülebilir gıda sistemlerinde tüketimin rolü; Türkiye'de tüketici davranışları ve uygulanan kamu politikalarının etkileşimine dair bir analiz" başlıklı araştırması İnsan Araştırmaları Etik Kurulu tarafından uygun görülmüş ve 455 ODTU 2019 protokol numarası ile onaylanmıştır.

Saygılarımızla bilgilerinize sunarız

  
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## APPENDIX C: TÜRKÇE ÖZET/ TURKISH SUMMARY

Sürdürülebilir gıda sistemlerinde tüketici tercihlerinin ve onu oluşturan sosyal, ekonomik, kültürel etkenlerin incelenmesi; gıda üretiminin yanı sıra uygulanan kamu politikalarının etkinliğini ölçmek ve onun nasıl yönlendirilmesi gerektiğini göstermek açısından gereklidir. Güvenilir gıda arzının gerçekleşmesi, gıdanın içeriğine, besleyiciliğine ve aynı zamanda gıda israfının engellenmesine dair tüketicinin eğitilmesinde uygulanan politikalar kadar tüketicinin sistemi etkileyecek haklarının olması da önem arz etmektedir. Bu kapsamda, gıda sisteminin sürdürülebilirliğinin sağlanması için sistemde var olan politikalar ve saha çalışması ile belirlenecek genç tüketici tercihlerinin etkileşimi incelenerek anlamlı sonuçlar elde edilebilecektir.

Gıda sisteminde tüketim; beslenme tercihleri, gıda güvenilirliği ve gıda israfını kapsamaktadır. Gıda konusunda tüketiciye yönelik kamu politikaları da gıda güvenilirliğini sağlama, doğru ve sağlıklı beslenme için önlemler alma ve tüketiciyi bilgilendirme, gıda israfını önleme ve sürdürülebilirlik için çalışmalar yapmaktır. Ancak tüketicinin yaş, gelir, eğitim durumu, cinsiyet, yaşam tarzı gibi faktörlerin gıda tercihini şekillendirdiği birçok çalışmayla gösterilmiştir. Bu noktada gıda sistemi kapsamındaki kamu politikalarının sistemin gerektirdiği dinamiklerle birlikte söz konusu faktörleri de dikkate alarak belirlenmesi, politikaların amacına ulaşması açısından gereklidir.

Sürdürülebilir gıda sistemleri, gıdaların üretimi, işlenmesi, dağıtımını, hazırlanması ve tüketilmesi, bunların pazarlanması ve kurumsal ağları ve bu faaliyetlerin sosyo-ekonomik ve çevresel sonuçları ile ilgili tüm unsurları ve aktiviteleri içerir (Pitt&Jones. 2016). Kavramsal olarak, son tüketiciyi pasif bir alıcı olarak tasvir eden doğrusal gıda değer zincirleri kavramının yerini, aktif tüketicileri, geri bildirim döngülerini ve daireselliği kapsayan dinamik, karmaşık ağlar olarak “Gıda sistemleri” ile değiştirmektedir (Halberg, 2017). Gıda

sistemlerinin sürdürülebilir bir bakış açısıyla ele alınması gıdanın üretim, işleme ve tüketim aşamalarının hepsinde kaynak kullanımında dikkatli olunmasını sağlamaktadır.

Bu çalışmanın amacı, sürdürülebilir gıda sistemlerinde tüketim dinamiklerini belirleyen tüketici davranışlarını sebep ve sonuçlarıyla incelemek ve Türkiye’de gıda konusunda tüketime yönelik kamu politikaları ve tüketici davranışlarının etkileşimini analiz etmektir. Gıda güvenliğinin gıda kullanımı boyutu; eğitim ve gelir düzeyi yüksek, evli ve çocuk sahibi tüketicilerle incelenmiş, gıda konusunda sosyal yardım dışında hangi politikalar ile toplum refahına hizmet edilebileceği analiz edilmeye çalışılmıştır. Tüketici davranışlarını tek başına ele almak yerine gıda sistemi içinde incelemek, sistemdeki parçaların birbiriyle ilişkisi düşünüldüğünde gerekli hale gelmektedir. Gıda sistemi dediğimiz yapının amacı nihayetinde ortaya çıkan gıdayı tüketen ve sağlıklı bir yaşam sürmesi temel hakkı olan insan içindir.

Sürdürülebilir gıda sisteminin işleyebilmesi için tüketim de üretim gibi sürdürülebilir bir şekilde gerçekleşmelidir. Beslenme alışkanlıklarındaki değişimler ve tüketici farkındalığıyla birlikte değişen tüketici tercih ve beklentileri, üretim süreci farklı olan gıdaların üretilmesine neden olmaktadır. Tüketiciler özellikle gıda sektöründe hassas davranmakta ve kendileri için farklı bir değer yaratabilen ürünleri tercih etmektedirler. Gıdaların tüketime hazır hale gelene kadar geçen süreçte çevreye zarar verip vermediğine dair hassasiyet, organik gıda tercihi, yerel tat ve ürünlerin korunması ve gıda israfı çalışmanın konusu çerçevesinde incelenen konulardır.

Sürdürülebilir gıda sistemleri gıda sektöründeki süreçleri ve aktörleri tanımlamak için analitik bir araç olarak kullanılmaktadır. Gıda sistemiyle; gıdanın yetiştirilmesi, işlenmesi, taşınması, pazarlanması ve tüketilmesi süreçlerini içeren gıda değer zincirinin doğrusal bakış açısından ziyade daha

bütüncül bir yapı kastedilmektedir. Bu bütüncül yapı süreç ve sonuçlarıyla çok boyutlu bir değerlendirmeye olanak tanımaktadır. Bu çerçevedeki analizde herkesin hem nitel hem nicel anlamda gıdaya ulaşabilmesini içeren gıda güvenliği kavramının alt başlıkları detaylandırılmaktadır. Gıda güvenilirliğinin sağlanması besleyici gıdaya ulaşmada en temel adımdır. Bu doğrultuda gıda güvenilirliğinin sağlanması için uluslararası alanda kural ve standartlar kabul edilmiştir. Güvenilir gıda standartları ve etiketleri, birçok hükümet ve firma tarafından tedarik zincirindeki gıda güvenilirliği sorunlarıyla başa çıkmak için kullanılan araçlardan biridir. Sertifikalar, ürün menşei ve izlenebilirlik sistemleri ile tüketilen gıdanın güvenilir olması konusunda bilgi verir. Kalite ve güvenliğin sağlanması için gıda standartları ve sertifikaları çoğalmakta, sürdürülebilirlik hedefinin benimsenmesiyle çeşitlenmektedir. Gıda değer zincirinde ve gıda sistemlerinde tüketicilerin farklı ve çeşitli bilgiye ulaşarak tercihlerini çeşitlendirmesi, farklı beslenme alışkanlıkları ve diyetler uygulanması gıda arzının da bu doğrultuda çeşitlenmesine neden olmakta, sürdürülebilir üretim ve tüketim artan oranda ilgi görmekte ve önem kazanmaktadır. Gıda kayıp ve israfının artan oranı da sürdürülebilir tüketim tercihlerini etkilemektedir.

İnsanların diyet tercihlerinin yanı sıra beslenme durumunu da şekillendiren fiziksel, ekonomik, politik ve sosyo-kültürel çevreyi, fırsatları ve koşullarını ifade eden gıda çevresi (Swinburn et al., 2014) kavramı tüketicilerin gıda tercihlerinin ne kadar farklı koşullardan etkilendiğini göstermektedir. Öncelikle tüketici farkındalığı ve bilinçli tüketici olmak, tüketicinin birçok bilgiye açık olmasını ve bilgileri detaylı bir şekilde analiz etmesini sağlamaktadır. Farkındalığı yüksek olan tüketici, taleplerini de bu doğrultuda belirleyebilmekte ve aynı zamanda haklarını da gerektiği zaman kullanabilmektedir. Beslenme düzeni ve beslenme tercihlerinde uzun vadeli gerçekleşen değişim beslenme geçişi olarak adlandırılmakta ve yaş, kuşak, yaşam tarzı değişimi, gıda sistemlerinin farklılığı ve farkındalıkla birlikte kişilerin beslenme tercihleri

değişmektedir. Kentleşme ve çevresel kaygıların da eklenmesiyle beslenme alışkanlıklarında bütüncül bir farklılaşma kendini göstermektedir.

Gıda tercihlerini etkileyen faktörlerden biri gelir etkisidir. Beslenme alışkanlıklarının dönüşümünde de gelirin artışı ve modern yaşam standartları etkilidir. Ev yapımı yemeklerden çok daha az besleyici olmalarına rağmen, hazırlık gerektirmeyen ya da hazırlaması çok az zaman alan yiyecekler zaman kısıtı olması durumunda tercih edilebilmektedir. Maliyet bu anlamda zamanla birlikte belirleyici bir diğer husustur. Bazı tüketiciler sadece ekonomik nedenlerden dolayı düşük bütçeli gıdaları tercih etmektedirler. Diğer taraftan ekonomik kaygısı olmayan tüketiciler yiyecek seçimi yaparken sağlığı, hayvan refahını veya çevreye verilen zararı değerlendirerek sürdürülebilir gıda tüketimi ve bu tür beslenmeye yönelebilmektedir. Tüketicilerin gıda tercihlerinde cinsiyet de önemli bir fark oluşturmaktadır. Özellikle ailenin beslenme düzenini, çocuk sahibi olunmasıyla annelik rolünün de eklenmesiyle, kadın, ev halkının diyetini belirlemede bu doğrultuda gıdalar ve gıda alışverişi konusunda karar verici olmaktadır. Eğitim düzeyi de gıda tercihlerini etkileyen bir faktördür. Eğitim düzeyi yüksek ebeveynler bilgi edinme konusunda farklı kaynaklardan faydalanmaktadır. Gıda tercihinde yaş ve kuşak etkisi değişen gıda sistemleri ile bağlantılıdır. Zamanla değişen gıda çevresi, yaşam tarzıyla birlikte kuşakların gıda tercihlerini de etkilemektedir. Çocukların beslenmesi konusunda sağlıklı beslenen buna önem veren ebeveynlerin sağlıklı beslenmeye önem veren çocuklar yetiştirmesi genel kabul olmakla birlikte çocukların da ebeveynleri gıda tercihlerinde daha hassas olma konusunda itici güç olduğu görülmektedir. Yaşam tarzı ve tutumlardaki kuşak farklılıkları, gıda tercihleri söz konusu olduğunda farklı ihtiyaçlara, tercihlere ve beklentilere dönüşmektedir.

Gıda konusunda tüketicilere yönelik uygulanan politikaların etkileşiminin incelendiği bu çalışmada güven konusundaki söylemlerde önem kazanmıştır. Güven kavramı, kişilerin tüketici olarak kendileri de dahil gıda zincirinde yer

alan aktörlerden çok politikalara ve onların etkinliğine karşı güven eksikliği açısından ele alınmıştır. Gıda zincirindeki aktörlere duyulan güven ve ayrıca tüketicilerin sağlıklı gıda tercihlerinde bireysel sorumluluk bilincinin değerlendirilmesine yönelik farklı çalışmalar yapılması yeni uygulamalara kapı açabilecektir.

Sürdürülebilir gıda sistemlerinde gıda tercihlerini yönlendirme ve tüketici bilincini artırmaya yönelik birçok politikalar uygulanmaktadır. Tüketicinin eğitimi, sonraki davranışsal değişikliklerin ve sistem seviyesindeki değişimin temelini oluşturacaktır, bu nedenle tüketici temelli politikaların dikkatli bir şekilde oluşturulması gerekmektedir (ARCH, 2016). Gıdalarla ilgili yasalar, güvenlik tanımı açısından gıda güvenilirliği uygulamaları konusunda tüketiciler için yeterince anlaşılır değildir. Gıda kontrolünden sorumlu otoritelerin görevi, riski tamamen ortadan kaldırmaya çalışmaktan ziyade mümkün olduğunca azaltmaktır. Tüketicilerin gıda güvenilirliği ve kalite kriterleri hakkında bilimsel anlamda asimetrik bilgisi karar sürecine katılımlarını azaltmaktadır. Tüketici örgütleri; güvenilir gıdanın hangi denetimlerden geçerek tüketicinin tercihine sunulduğu, tüketicinin gıdayı alırken hangi etiket ve belgelere dikkat etmesi gerektiği, tükettiği gıda konusunda hangi haklara sahip olduğu konusunda yol gösterici olmaktadır. Gıda endüstrisi oldukça teknik personel ve laboratuvar imkanlarına sahipken, tüketici örgütleri gerekli bilimsel analizi yapmak için aynı fırsatlara sahip değildir, tüketici kuruluşları, gıda, tarım, beslenme ve sağlık bilimlerinde uzmanlığa sahip derneklerle iş birliği yaparak teknik kapasitelerini artıracaklardır. Kamu otoriteleri, gıda üreticileri, gıda işletmeleri ve tüketiciler arasındaki iş birliği sağlıklı bir bilgi akışını sağlayacak ve katılımı artıracaktır.

Toplumların sağlıklı gıda tüketmesinin sağlanması için birçok politika önerisi mevcuttur. Ekonomik açıdan gıdaya erişim noktasında sosyal yardımlar ve nakit yardımı politikaları uygulanmaktadır. Gıda çevresinin iyileştirilmesi, sağlıksız ve

besleyici olmayan gıdalardan arındırılması, tüketicilerin güvenilir ve besleyici gıdalarla beslenmesi konusunda eğitilmesi ve çocuklar için okullarda programlar düzenlenmesi toplum sağlığına katkı sağlayacaktır. Sağlıklı içeriğe sahip gıdaların satıldığı belirli reyonlar veya ayrı satış yerleri bu talepte olan tüketiciler için kolay ulaşılabilir bir hedef yaratır. Etiketlerin renklendirilmesi ve temsili harf ve sembollerle gıda içeriklerinin anlatılması gıda tercihlerini yönlendirmede etkili yöntemlerdir. Beslenme tarzının değişimiyle dışarda yemek yeme alışkanlığının artması bu hizmeti veren işletmelerin de tüketici tercihlerini yönlendirmede rollerini artırmaktadır. Yemek menülerinde yemeklerin içeriklerinin detaylı bir şekilde anlatılması ve sağlıklı yiyecekleri belirten işaretler kullanılması da uygulanan yöntemlerdendir. Sayısal ve karmaşık ibarelerden ziyade kısa açıklamalar ve renklendirme yoluyla menülerde de bilgilendirme yapılmaktadır. Etiketleme, gıda israfının önlenmesi için önemli bir yönlendirici araç olabilmektedir. Gıdanın güvenilirliği ile gıda kalitesinin farkının iyi anlaşılması gıda israfının önlenmesi açısından önemlidir. Bu konudaki karışıklıklar etiketlerin açıklanmasıyla düzeltilebilmektedir. Özellikle paketli gıdalarda ürün ambalajında son kullanma tarihi ve tavsiye edilen tüketim tarihiyle ilgili net açıklamalar fayda sağlayabilmektedir. Ürünlerin saklama koşulları konusunda bilgi verici etiketler tüketiciler için fayda sağlamaktadır.

Türkiye’de gıda denetimi konusunda Tarım ve Orman Bakanlığı’nın uzun bir tarihsel geçmişi vardır. Güvenilir gıda arzını sağlamak, gıda, gıda katkı maddeleri üreten işyerlerinin niteliklerini ve bunlara ilişkin izin ve kayıt esaslarını belirlemek, bunların izin ve kayıt işlemlerini yapmak, üretim ve satış yerlerinin kontrol ve denetimlerini yapmak veya yaptırmak gibi gıda alanında önemli görevleri bulunmaktadır. Sağlık Bakanlığı obezite, sular ve takviye edici gıdalarla ilgili faaliyetlerle, Ticaret Bakanlığı dış ticarete uyulması gereken kurallardan ve tüketici haklarından sorumludur. Ticaret Bakanlığı 2018 yılında hazırlanmış olduğu “Tüketici Profili ve Bilinç Düzeyi Araştırma Raporu”nda Türkiye’de tüketicilerin gıda harcamaları konusunda gelirden büyük bir fark olsa

da bunun gıda harcama oranına aynı oranda yansımadağı görölmektedir, bu durum gelir arttıkça tüketilen gıdaların, organik, ekolojik, doğal gıdalar yönünde, farklılaşmasının bir göstergesidir.

Türkiye’de sürdürülebilir gıda sistemlerinde tüketime yönelik kamu politikaları uygulamaları çeşitli boyutlarda kendini göstermektedir. Gıda güvenilirliği alanında toplumda bilinç oluşturma, bilgi edinme imkânının artırılması ve tüketicinin şikâyet ve ihbarlarının edinilmesi amacıyla “Alo Gıda Hattı 174” uygulaması bulunmaktadır. İnternet üzerinden bedelsiz hizmet veren ve Türkiye’de üretilen ve tüketilen gıdaların bileşen değerlerinin içeriğine kolayca ulaşmayı sağlayan ulusal gıda kompozisyon veri tabanı, ulusal bir sistemdir. Tüketicilere gıda bileşenleri konusunda ülkesel düzeyde ve uluslararası standartlarda üretilmiş güvenilir veriye ulaşım olanağı sağlamak bu sistemin hedefidir. Gıda ve gıda ile temas eden madde ve malzeme üreten ve piyasaya arz eden işletmelere yönelik resmi kontroller, Tarım ve Orman Bakanlığı tarafından gerçekleştirilmektedir. Denetimler sonucunda işletmelere idari para cezası ya da cezai işlem yapılmaktadır. Sağlıklı beslenme, spor ve hareketi hayatın bir parçası haline getirmeyi ve tuzu beslenme alışkanlıklarında azaltmayı amaçlayan programlar sağlıklı hayat sürülmesi için uygulanan programlardır. Okul kantinlerinde satılan yiyeceklerin zararlı içeriklere sahip olmaması adına da etiket uygulaması için çalışmalar yapılmıştır. Beslenme eğitimi kapsamına giren emzirme eğitimi, hastanelerde, toplum sağlığı ve aile sağlığı merkezlerinde ücretsiz olarak verilmekte kitapçık ve broşür dağıtımı yapılmaktadır.

Türkiye G20 Dönem Başkanlığında tema “sürdürülebilir gıda sistemlerinin tesisi kapsamında gıda kayıpları ve israfının azaltılması” olarak belirlenmiş ve gıda israfı konusu uluslararası alanda vurgulanmıştır. Ticaret Bakanlığının 2017 yılında hazırlamış olduğı İsrâf Raporu’nda da gıda israfının önemi vurgulanmıştır. Gıda israfı konusunda Tarım ve Orman Bakanlığı, Toprak Mahsulleri Ofisi (TMO, 2015) tarafından yürütölen “Ekmek İsrâfı Kampanyası”

ülke genelinde uygulanmıştır. “Türkiye’nin Gıda Kayıpları ve İsrafının Önlenmesi, Azaltılması ve Yönetimine İlişkin Ulusal Strateji Belgesi ve Eylem Planı” 2020 yılında hazırlanmıştır. Bu doğrultuda tüketicilerin gıda israfına yönelik doğru bilgilendirilmesi, bu bilinçle hareket edilmesi ve böylece israfın azaltılması amaçlanmıştır. Beslenme alışkanlıklarının küçük yaşta edinilmesinin önemi doğrultusunda okullarda da yönlendirici faaliyetler gerçekleştirilmektedir. Okul Sütü Programı ile gelişme çağındaki çocuklara süt içme alışkanlığı kazandırılması hedeflenmiştir. Okul Üzümü Projesi de kuru meyve tüketim alışkanlığının kazandırılması ile yeterli ve dengeli beslenmeye katkıda bulunmak amacıyla uygulanmıştır.

Çalışmada nitel araştırma metodu kullanılmış, derinlemesine mülakatlar gerçekleştirilmiştir. Bu yöntemin seçilmiş olma sebebi görüşülen tüketicilerin beklentilerine, isteklerine, algılarına, tavsiyelerine odaklanabilmektir. Uygulanan politikaların bir değerlendirmesi yapıldığı için bu yöntem uygun görülmüştür. Görüşmeler yarı yapılandırılmış mülakat şeklinde gerçekleştirilmiştir. Görüşmeler 30-35 dakika sürmüş ve kaydedilmiştir. 7 kadın, 6 erkek toplam 13 kişiyle derinlemesine mülakatlar gerçekleştirilmiştir. Görüşmeler için hazırlanan soru formu beş bölümden oluşmaktadır. Öncelikle yaş, eğitim düzeyi, meslek, hane gelir düzeyi, sahip olunan çocuk sayısı sorulmuştur. Ardından gıda sisteminde tüketimi ilgilendiren konu başlıklarına yani gıda güvenilirliği uygulamaları, beslenme tercihleri, gıda israfı, sürdürülebilir tüketim ve tüketicinin sistemdeki rolü üzerine sorular sorulmuştur. Bahsedilen konularda görüşülen kişilerin bireysel tercihleri, beklentileri ve politika uygulamalarına dair düşüncelerinin öğrenilmesi hedeflenmiştir. Konunun daha kapsayıcı bir şekilde analiz edilebilmesi için sürdürülebilir gıda sisteminde tüketici davranışları dinamikleri temel alınmış ayrıca yapılan görüşmelerin de yönlendirmesiyle detaylı incelenmesi gereken konular için ayrı başlık yapılmıştır. Analiz başlıkları; gıda güvenilirliği ve gıda güvenilirliği ve tüketici farkındalığı, gıda

tercihleri ve beslenme dönüşümü, sürdürülebilirlik, gıda sisteminde tüketicinin rolü, politikalara güven ve beklentiler şeklindedir.

Çalışma kapsamındaki tüketicilerin sağlığa katkı sağlayan doğru beslenme ve sağlıklı gıda konusunda farkındalıklarının yüksek olduğu görülmüştür. Ancak bu alanda kullanılan kavramların tam anlamıyla benimsenmediği ve kavramların içeriğinin tam olarak bilinmediği tespit edilmiştir. Güvenilir gıda kavramının içeriğinin bilinmemesi o doğrultuda yapılan yayın ve bilgilendirmelere karşı seçiciliği de azaltmaktadır. Güvenilir gıda arzı konusunda yetkili kurumun bilinirliği düşüktür. Gıda etiketleri gıdaların kimliği gibidir ve onların doğru anlaşılabilmesi beslenmenin içeriğini önemli ölçüde etkiler. Görüşülen ailelerde hane halkının yiyeceklerini belirleyen taraf kadınlar olduğu için etiketler konusunda kadınların farkındalığı daha fazladır. Ancak etiketlerde en çok dikkat edilen kısım son kullanma tarihi/tavsiye edilen tüketim tarihidir, içerik bölümü teknik terimler sebebiyle karmaşık görülmektedir. Gıda etiketlerinin açık ve anlaşılabilir olması tüketici farkındalığını artırmak anlamında önemlidir. Bu doğrultuda, gıda içeriklerinin etiketlerinden kolayca anlaşılabilmesi için renklerin temsil ettiği içeriklerle etiketlerin renklendirilmesi, besleyici içeriğe göre etiket üzerinde puanlama olması gibi uygulamalar gıdayı alırken tüketicilerin hızlı bir şekilde gıda içeriği hakkında fikir edinmesini sağlamaktadır.

Doğru beslenme sağlıklı yaşam sürmenin ön koşulunu oluşturması nedeniyle beslenme gıda sistemlerinde önemli bir yere sahiptir. Besleyici içeriğe sahip, güvenilir ve yeterli gıda tüketilmesi doğru bir beslenmeyi sağlar. Gıda sisteminin her aşamasında olduğu gibi tüketim aşamasında da sağlıklı beslenme adına yapılabilecek uygulamalar bulunmaktadır. Tüketim aşamasında gıda tercihleri ve tercihleri belirleyen faktörlerin değerlendirilmesi doğru uygulamalar yapılmasını sağlamaktadır. Gıda tercihlerinde tüketicilerin nereden bilgi aldığı önemlidir ve bu noktada internet kaynakları ve sosyal medyanın önemli en çok

tercih edilen bilgi kaynağı olduđu ve kamu otoritelerinin bilgilendirme faaliyetlerinin yeterince tüketiciye ulaşmadığı görülmüştür. Çalışma kapsamındaki tüketicilerin gıda tercihlerini en çok etkileyen faktörün çocuk sahibi olmalarıdır. Çocukla birlikte doğal ve sağlıklı beslenmeye yönelik farkındalığı artmış, tüketilen gıda ürünlerinin değişmiş, hassasiyet çok artmış ancak bu hassasiyet anne babanın kendi beslenmesinde her zaman devam etmemektedir. Organik gıda tercihinin en büyük sebebi yine çocuğun beslenmesidir. Marka ve sertifikalar organik gıda tercihlerinde belirleyici bir faktördür. Ancak organik ürünlerin fiyatları nedeniyle düzenli tüketim yapılamamaktadır.

Beslenme alışkanlıklarında zaman içinde birçok farklı nedenden değişim gerçekleşmiştir. Güvenilir gıda ve sağlıklı beslenmeye dair farkındalık yaşla birlikte oluşmuş ve buna bağlı olarak da daha genç yaşlara nazaran daha sağlıklı olduğu düşünülen gıdalar tüketilmeye başlanmıştır. Maddi durumun değişimi e gıda tercihlerini değiştirmektedir. Eğer tüketicinin farkındalığı yüksekse geliri arttıkça sağlıklı ve doğal beslenmeye uygun gıdaları tercih etmektedir. Ancak parasal sorun kalmasa ve farkındalık olsa bile modern gıda sistemi ve mevcut yaşam koşulları zaman yetersizliğini beslenme konusunda belirleyici hale getirmiştir. Ev dışında yemek zaman açısından bir çözüm gibi görülmekte ancak yine çocukla birlikte daha hassas olmaya özen gösterilmektedir. Çalışma kapsamındaki tüketiciler kendi çocuklukları ve öncesinde gıdaların mevcut zamana göre daha sağlıklı olduğu görüşündedirler. Bu düşüncenin sebepleri önceki dönemlerde içinde bulunduğumuz modern gıda sisteminin yerine geleneksel gıda sisteminin olması ve bu durumun getirdikleridir. Farklı kuşak temsilcilerinin farklı gıda tercihlerinin olması da beslenme alışkanlıklarında geçişlere neden olmaktadır. Doğal beslenme konusunda aile büyüklerinin beslenme tarzına yaklaşanlar olduğu gibi sağlıksız beslenmeye hizmet eden bazı alışkanlıkları bırakmak istemeyen aile büyükleri dolayısıyla farklı düşünen

kişiler de bulunmaktadır. Tüketicilerin gıda alışverişini nerden yaptıkları gelir durumu, kentleşme ve yaşam tarzının değişimiyle alakalıdır.

Gıdaların tüketime hazır hale gelene kadarki süreçte çevreye zarar verilip verilmemesi konusunda bir bilinç bulunmaktadır. Ancak beslenme düzeni tam olarak bu bilinçle şekillenmemektedir. Sürdürülebilir gıda tüketiminin bir ayağı organik gıda tüketimidir. Özellikle fiyatlardan dolayı istikrarlı bir organik gıda tüketimi bulunmamaktadır. Sürdürülebilir tüketime dair bir diğer başlık ise gıda israfıdır ve bu konuda tüketici bilinci çok önemlidir. Bilgilendirme faaliyetleri ve israfı engelleyici küçük ya da büyük boyutlu ülke bazında bazı kampanyalar da israfın azaltılmasına destek olmaktadır. Yerel gıdalara olan ilginin daha çok lezzet ve güvenilirlikle ilgili olduğu görülmüştür. Yerel gıda ürünlerinin ve yerel üreticinin korunması ve sürdürülmesine yönelik politika üretilmesi hem tercihlerin karşılanması hem de çevre için gereklilik göstermektedir.

Çalışmada ayrıca tüketicilerin gıda sistemindeki rollerinin ne olduğu konusunda kendilerinin ne düşündüğü, hakları konusunda ne kadar bilinçli oldukları, tüketici olarak sistemi ne kadar etkilediklerini düşündükleri analiz edilmiştir. Tüketicilerin haklarını kullanması konusunda fayda sağlama açısından şüphelerin yanı sıra genel anlamda bir zaman problemi olduğu görülmektedir. Hakların kullanımının zamanın koşullarına adaptasyonu, alternatif yöntemler geliştirilmesine yönelik politikalar tüketicilerin haklarını kullanmasını teşvik edici olabilecektir. Tüketicilerin sistemde güçlü bir rolünün olduğunu düşünmesi, beklentileri doğrultusunda bazı kararlar alırdırabileceği inancı daha fazla sorumluluk almalarına ve taleplerini daha fazla dile getirmelerine neden olabilecektir. Tüketicilerin politikalara olan güveni de sistemdeki rollerinin etkinliğiyle bağlantılıdır. Arz edilen gıdalara hem gıda güvenilirliği anlamında hem de sunulduğu etiketlerin doğruluğu ve denetimler konusunda bir güvensizlik olduğu görülmüştür. Tüketicilerin karar alma süreçlerine katılımının artması da güveni artırıcı bir yöntemdir. Bu doğrultuda görüşlerini ifade edebilecekleri

resmi platformlar oluşturulması ve fikirlerinin hayata geçtiğini görmeleri önemlidir. Kontrol mekanizmalarının gıda zincirinin en başından, üretimden itibaren denetimlerin gerçekleştirilmesine önem verilmektedir. Gıda üreticilerine karşı ödül ve ceza sisteminin doğru ve kaliteli gıda üreteni teşvik, güvenilir olmayan gıda üretenin ise caydırılmasına yönelik olması etkili bir yöntemdir.

Güvenilir ve sağlıklı gıdalarla oluşturulan beslenme rejimi arz edilen gıda konusunda hassas olan, araştıran kişilerle sağlanabilir. Gıda tüketicisinin farkındalığı ve bilinç düzeyi bu açıdan çok önemlidir. Tüketiciler eğitildikçe farkındalıkları artacak ve politikaları bu doğrultuda etkileyebilecekler, böylece etkileşim artacaktır. Eğitimin en küçük yaştan itibaren çocuklara yönelik olarak eğitim kurumları vasıtasıyla başlamasının önemli olduğu düşünülmektedir. Çocuklar yarının karar verici tüketicileri olmaları itibariyle sürdürülebilir gıda tüketimi, sağlıklı beslenme gibi konularda eğitilmeleri önemlidir.

Çocuk faktörü kişilerin gıda tercihlerini tamamen etkilediği için bu konudaki bilgi kirliliğinin önüne geçilerek anne babalara yönelik yetkili kurumlar tarafından doğru bilginin aktarılması sağlanmalıdır. Gıda okuryazarlığı kapsamında yaş ve cinsiyete göre tüketicileri eğitim verilmesi faydalı olacaktır. Buna ek olarak cinsiyet faktörü özellikle annelik boyutuyla eğitim ve bilgilendirmelerde özel önem gösterilmesi gereken bir politika alanıdır. Politikaların gıda tercihlerini etkileyen faktörlere göre farklılaştırılarak oluşturulabilmesi tüketiciyle etkileşimini artıracaktır. Cinsiyet faktörü gibi yaş ve kuşak farkı da gıdaya yönelik önceliklerin değişmesine neden olmaktadır. Beslenme alışkanlıklarındaki değişimler olarak adlandırılan günümüzdeki farklı gıda tercihlerinden; genç kuşağın doğal ve organik gıdalara yönelik yoğun ilgisi, çevreye duyarlı sürdürülebilir gıda tüketicisi olması, yerelde üretilen gıdaya olan talebi göz önünde bulundurularak üretimin yönlendirilmesi etkili bir politika olacaktır. Toplumun uygulanan politikalara güveni ve toplumun gıda sistemine aktif katılımı karşılıklı olarak birbirini desteklemektedir. Tüketici verilen

kararlarda yer aldıkça, fikir ve beklentilerinin önemsendiğini gördükçe politika yapıcılarla iletişim artacak daha çok bilinçlenmek isteyecek hatta haklarını aramak konusunda organize olarak haklarını arayabilecektir.

Günümüzde bilgi kaynaklarının çoğalması doğru bilgiye hızlı bir şekilde ulaşmanın gıda konusunda da önemini artırmıştır. Gıda zincirinin her aşamasına dair yanıtıcı bilgiye çok kolay ulaşılabilir. Gıda tüketimine dair ilgili otoritelerin açıklamaları ve bilimsel çalışmalara birincil olarak ulaşma talebinin sağlanması önem arz etmektedir. Sosyal medya, çalışma kapsamında incelenen profil için birincil haber ve bilgi kaynağı haline gelmiştir. Bu platformun yetkili kurumlarca daha aktif olarak kullanılabilmesi doğru ve güvenilir bir bilgi ağı sağlayabilecektir.

## APPENDIX D: TEZ İZİN FORMU / THESIS PERMISSION FORM

### ENSTİTÜ / INSTITUTE

- Fen Bilimleri Enstitüsü / Graduate School of Natural and Applied Sciences**
- Sosyal Bilimler Enstitüsü / Graduate School of Social Sciences**
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**TEZİN ADI / TITLE OF THE THESIS (İngilizce / English):** DYNAMICS OF CONSUMER BEHAVIOR AND POLICIES IN SUSTAINABLE FOOD SYSTEMS IN TURKEY

**TEZİN TÜRÜ / DEGREE:** Yüksek Lisans / Master  Doktora / PhD

- 1. Tezin tamamı dünya çapında erişime açılacaktır. / Release the entire work immediately for access worldwide.**
- 2. Tez iki yıl süreyle erişime kapalı olacaktır. / Secure the entire work for patent and/or proprietary purposes for a period of two years. \***
- 3. Tez altı ay süreyle erişime kapalı olacaktır. / Secure the entire work for period of six months. \***

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*A copy of the decision of the Institute Administrative Committee will be delivered to the library together with the printed thesis.*

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**Tarih / Date** .....