Understanding Determinants of Organic Food Consumption: Turkey Example

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Abstract: The demand for organic products is growing, however in Turkey although the interest to organic products has grown; the growth of demand is relatively low. So it is important for producers of organic products to understand who the organic customers are, and what are their attitudes and behaviors regarding organic food products as well as why people do not prefer them. This is the main aim of this article. This study presents the results of a survey regarding consumer perceptions of organic foods in Turkey. The survey was conducted to determine consumer attitudes towards organic foods and the reasons for consumption or non-consumption of organic foods. A total of 882 consumers that makes food shopping for their families, living in İzmir participated the research. The results of the survey revealed that health issue is an important consideration in the consumption of organic products, however respondents stated that they find organic products expensive and hard to find everywhere, and they have some doubts about the reliability of the organic foods. Also five types of behaviour regarding organic food consumption behavior have been identified. The findings have practical implications especially for governments. More support and education should be given to organic producers so that supply of organic food products would increase, and there should be strict control on those products as to reduce consumers' negative attitudes.

Keywords: Organic food products; Consumer behavior; Turkey

JEL Classification: M30; M31

1. Introduction

Organic agriculture, is the application of environmentally and animal friendly farming methods to produce food (Soil Association, 2012). It is a way of agricultural production in which the use of chemical inputs or pesticides are avoided, and the production is carried out by using only the inputs permitted by the regulations. In organic farming, each stage of the process, from production to consumption, is supervised and certified. The aim of organic farming is to provide the maximum level of protection for the environment, plants, animals and human health without polluting the soil and water resources or the quality of air (Kirazlar, 2001). It seeks

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to provide the consumer, with fresh, tasty and authentic food while respecting nature and animal welfare, and creating new opportunities for rural people (European Commission, 2012). Products of organic farming has many benefits for human health other than the stated ones. However organic products are not very widespread in Turkish market, and only a tiny fraction of organic production in Turkey is consumed domestically, and demand for organic products is rather unsteady (Demir, 2013; Eryılmaz et al., 2015). Thus despite its benefits organic products sales cannot reach their potential in the Turkish market.

"The future of organic agriculture will depend, to a large extent, on consumer demand" (Gracia & Magistris, 2008, p. 387). Hence, it is important for organic food producers to understand who really their consumers are, what their priorities are, and what their real motivation to use organic products is. Understanding potential factors that influence organic food buying behaviors, and attitudes of people toward organic food products, and why people do not prefer organic food products is the main aim of this exploratory study. Since uncovering those issues can directly help identify and implement marketing strategies to increase the primary demand for organic products it is expected that the results of the study would be subservient for practitioners.

Within this framework, the current study aims at revealing the attitudes and self-reported behavior of Turkish consumers with respect to organic foods consumption behavior and attitudes. Thus in the following part a literature review about consumers' attitudes of organic food consumption would be given and this will be followed by the methodology, findings and conclusions.

2. Why People Prefer to Consume Organic Food

Several studies have analyzed consumers' perception toward organic food products (e.g., Beaudreault, 2009) and environmentally sustainable products (e.g., Pickett-Baker & Ozaki, 2008). Also, there are several streams of work on organic food that focuses on who the organic food consumers are, and what their motives for consuming organic food products are. From a marketing perspective it is important to understand why consumers consume organic food, what motives they have, and how they consume organic food.

It is known that standards of living, education level, and age characteristics influence consumers' awareness of and knowledge about organic production and consumption (Pellegrini & Farinello, 2009). However, every group of customer may not share the same motivation to consume organic food products. Among the main motives for organic food consumption prominent ones have been found to be health considerations, and environmental concerns (Pellegrini & Farinello, 2009; Lockie et al., 2002; Magnusson et al., 2003; Chryssohoidis & Krystallis, 2005; Gracia &

Magistris, 2008; Hughner et al., 2007; Li et al., 2007; Wier et al., 2008; Zepeda & Deal, 2009; Bellows et al., 2010; Cerjak et al., 2010; Hasançebi, 2010; Ergin, et. all., 2011; Çabuk et. al, 2014). Health concern and health care through proper nutrition is among the most important considerations for consuming organic food and it has become a life style for some people. Some researchers further investigate health concern issue as personal health, and family health, stating that the strongest motivator for buying organic products is personal health (Smith & Paladino, 2010).

Specific product attributes as quality (Lockie et al., 2002; Smith & Paladino, 2010; Hamzaoui-Essoussi & Zahaf, 2012; Ergin, et. all., 2011), better taste (Lockie et al., 2002; Dahm et al., 2009; Hasançebi, 2010; Hughner et al., 2007; Stolz et al., 2010; Hamzaoui- Essoussi & Zahaf, 2012; Ergin, et. all., 2011), nutrition value and freshness (Fotopoulos & Chryssochoidis, 2000) has also found to be influential in organic food consumption.

Another factor that is known to influence consumption patterns is the family life cycle. It is also found to be influential in consumption of organic foods. Organic food consumption is thought to be an alternative lifestyle beginning with pregnancy (Pino et al., 2012), the arrival of a baby (Hamzaoui-Essoussi & Zahaf, 2012) and having children in the family (Hamzaoui-Essoussi & Zahaf, 2012). However, importance attached to various organic food purchasing motives is known to differ across countries (Cerjak et al., 2010; Quah & Tan, 2010) which makes it harder to generalize the findings.

3. Why People Do Not Prefer to Consume Organic Food

Another stream of work regarding organic food consumption is about the factors that hamper organic food consumption. Factors that makes people not to consume organic food have been found to be lack of or limited availability of organic products (Lockie et al., 2002; Chryssohoidis & Krystallis, 2005; Zepeda & Deal, 2009; Hasançebi, 2010; Smith & Paladino, 2010; Stolz et al., 2010; Hjelmar, 2011; Hamzaoui-Essoussi & Zahaf, 2012; Aygen, 2012), search costs involved (Li et al., 2007), perceived effort involved (Smith & Paladino, 2010), economic factors (Gracia & Magistris, 2008; Hjelmar, 2011), price premiums of organic food products compared to conventional food items, in other words high price (Zepeda & Deal, 2009; Cerjak et al., 2010; Hasançebi, 2010; Smith & Paladino, 2010; Stolz et al., 2010; Hamzaoui-Essoussi & Zahaf, 2012), lack of perceived value (Hamzaoui-Essoussi & Zahaf, 2012; Aygen, 2012), lack of awareness of the organic food label (Li et al., 2007; Stolz et al., 2010), lack of trust in organic food and authorities (Worner & Meier-Plogger, 1999; Sarıkaya, 2007; Lodorfos & Dennis, 2008; Zepeda & Deal, 2009; Hasançebi, 2010; Smith & Paladino , 2010; Stolz et al., 2010; Hamzaoui-Essoussi & Zahaf, 2012), and existing habitual dietary patterns (Li et al., 2007).

4. Organic Food Consumers

Demographic characteristics of organic food buyers have been searched by many researchers in different countries, and research has led to mixed findings (Fotopoulos & Chryssochoidis, 2000; Lockie et al., 2002; Arvanitoyannis et al., 2003; Magnusson et al., 2003; Li et al., 2007; Gracia & Magistris, 2008; Lodorfos & Dennis, 2008; Teisl et al., 2009; Cerjak et al., 2010; Quah & Tan, 2010). Despite those contradictory findings, some consistent results have also emerged regarding demographic characteristics of organic food buyers throughout the world. Females (Davis et al., 1995; Reicks et al. 1997), older individuals, and households in which there are children tend to prefer organic food more compared to other groups (Hughner et al., 2007). Also, education and income were found to be significant factors in organic food consumption, and awareness by many researchers (Dettmann & Dimitri, 2010; Demirbaş et al., 2015).

In Turkey it has been found that individuals under 40 years of age with higher income levels (Akgüngör et al., 1999; Armağan & Özdoğan, 2005; Akgüngör et al., 2010), and families with one or two children, especially females and educated participants (İlyasoğlu et al., 2010), and married individuals compared to unmarried ones (Hasançebi, 2010) seemed to be more sensitive to organic food compared to groups with other socio-demographic characteristics (İnal et al., 2010).

5. Methodology

5.1. Data Collection

The purpose of this exploratory study is to examine the attitudes and self-reported behavior of Turkish consumers related to organic foods consumption. Based on a convenience sampling method, the questionnaires were administered by the help of a web server to people responsible from grocery shopping for their houses. The questionnaire was applied to 1000 people however, 118 of the questionnaires were eliminated resulting with 882 usable questionnaires. The survey instrument was pilot tested before the actual fieldwork, which ran between January and February 2016.

5.2. Instruments

The questionnaire included questions to measure demographic composition; knowledge and purchase behavior; attitude towards organic foods; reasons for not preferring organic goods, and intention to buy organic foods for the respondents.

Also, a nine-item measurement scale regarding why people do not purchase organic products; an eight-item scale regarding why people prefer organic products over conventional products and an eight item scale regarding the attitudes of people regarding organic products were used. Respondents were asked to rate the scales on a five -point Likert scale, with 1 indicating strong agreement and 5 indicating strong disagreement. The three scales were developed by a search of the extant literature and in-depth interviews with 10 organic food consumers and 10 non consumers.

5.3. Findings

Table 1. Organic Food Purchase of the Respondents

Do you purchase organic foods	n (882)	%
Always	15	1.7
Frequently	219	24.8
Rarely	388	44.0
None	260	29.5

Of the 882 respondents 260 (29.5%) of the respondents reported that they have never purchased organic foods, and most of the respondents (44%) stated that they rarely purchase organic product. Thus, here after the analyses would be conducted by grouping the respondents as, users (n=622) and non-users (n=260) of organic products.

Table 2. Frequencies of Demographics of the Respondents

	TOTAL (n:882)		ORGANIC PRODUCT USERS (n:622)		NON USERS OF ORGANIC PRODUCTS (n:260)	
	n	**%**	**n**	**%**	**n**	**%**
GENDER *						
Female	540	61.2	440	70.7	100	38.5
Male	342	38.8	182	29.3	160	61.5
AGE*						
	n	**%**	**n**	**%**	**n**	**%**
18-24	129	14.6	64	10.3	65	25.0
25-35	299	33.9	234	37.6	65	25.0
36-45	336	38.1	256	41.2	80	30.8
46-55	94	10.7	44	7.1	50	19.2
56-65	12	1.4	12	1.9	0	-
66-75	12	1.4	12	1.9	0	-

NUMBER OF PEOPLE LIVING IN THE SAME HOUSE *						
	n	**%**	**n**	**%**	**n**	**%**
1	206	23.4	121	19.5	85	32.7
2	246	27.9	201	32.3	45	17.3
3	257	29.1	172	27.7	85	32.7
4	160	18.1	115	18.5	45	17.3
5	13	1.5	13	2.1	-	-
MARITAL STATUS **						
	n	**%**	**n**	**%**	**n**	**%**
Single living with family	184	20.9	177	28.5	50	19.2
Married without children	140	15.9	134	21.5	45	17.3
Single living alone	262	29.7	95	15.3	85	32.7
Married with children	213	24.1	158	25.4	55	21.2
Empty nest	18	2.0	18	2.9	0	0
Divorced living with children	65	7.4	40	6.4	25	9.6
CHILDEREN UNDER SCHOOL AGE *						
	n	**%**	**n**	**%**	**n**	**%**
Yes	96	10.9	96	15.4	0	0
No	786	89.1	526	84.6	260	100.0
EDUCATION *						
	n	**%**	**n**	**%**	**n**	**%**
Primary School	25	2.8	0	0.0	25	9.6
High School	94	10.7	39	6.3	55	21.2
Two-year College	25	2,8	25	4.0	-	-
Bachelor Degree	354	40.1	289	46.5	65	25.0
Master's Degree	151	17,1	151	24.3	-	-
Ph.D.	233	26.4	118	19.0	115	44.2

* Significant for $p<0.001$; ** Significant for $p<0.01$

Regarding the respondents' organic product usage status, the demographic profile of users and non-users of organic products are given in Tables 2 and 3. The main statistical differences between users and non-users of organic products is analyzed by Chi-Square analyses. Significant differences between the user and non-user groups were found for all the demographic variables analyzed. It is seen that main customers of organic products are female and this finding also supports the extant literature (Hughner et al., 2007; Davis et al., 1995; Reicks et al., 1997), and mostly the users of organic products are between the ages of 25-45. Regarding the family life cycle it is seen that married people with children, and single people living with their families (which could also be considered as married with children category in Turkey, since in Turkish culture generally people do not leave their family house unless they are married to open up their own houses) are the groups that mostly consume organic food. The effect of family life cycle has also been stated in literature (Pino et al., 2012; Hamzaoui-Essoussi & Zahaf, 2012; Hamzaoui-Essoussi

& Zahaf, 2012). This could also be seen in our findings. There is a significant difference between users and non-users of organic products regarding the presence of children under school age at home, which is considered to be stimulator of organic food usage. While participants that use organic food products (15%) have children under school age. None of the participants that do not consume organic food products have children under school age. Also, the number of people living in the same house and education seems to differ between users and non-users of organic products.

Table 3. Frequencies of Monthly Household Income and Perception of Income

	TOTAL (n=882)		ORGANIC PRODUCT USERS (n=622)		NON USERS OF ORGANIC PRODUCTS (n=260)	
	n	**%**	**n**	**%**	**n**	**%**
PERCEPTION OF INCOME*						
Very Low	25	2.8	0	0.0	25	9.6
Low1	32	3.6	7	1.1	25	9.6
Low2	39	4.4	39	6.3	0	0
Low3	185	21.0	90	14.5	95	36.5
Middle	250	28.3	220	35.4	30	11.5
High1	214	24.3	179	28.8	35	13.5
High2	112	12.7	87	14.0	25	9.6
High3	0	0	0	0.0	0	0
Very High	25	2.8	0	0.0	25	9.6
MONTHLY HOUSEHOLD INCOME (TRY)*						
	n	**%**	**n**	**%**	**n**	**%**
Between 0-1000 TRY	37	4.2	27	4.3	10	3.8
Between 1001-2000	162	18.4	47	7.6	115	44.2
Between 2001-3000	157	17.8	137	22.0	20	7.7
Between 3001-4000	101	11.5	71	11.4	30	11.5
Between 4001-5000	119	13.5	119	19.1	0	0
Between 5001-6000	75	8.5	75	12.1	0	0
6001+	231	26.2	146	23.5	85	32.7

*Significant for $p<0.001$, 1 Euro = 3.278 Turkish Lira (TRY)

Two questions regarding their income was asked to the respondents. As could be seen from the Table 3, both the actual income and perception of income was asked and results shows that the percentage of users of organic products in the middle and high 1 income are higher while the most of the non-users consider themselves to be in the low 3 income segment. This is not a surprising finding since the price of organic products in Turkey is high and it is not easy for people to consume organic

products unless they are producing them, or the product is coming from their families located in villages.

Table 4. Respondents Knowledge of Organic Food

Do you have knowledge of organic foods	N (882)	%
Yes	431	48.9
Partly	451	51.1
No	0	0

All the respondents stated that they have knowledge on organic foods. So we can say that stated awareness among respondents regarding organic food is 100%. However, more than half of the respondents needs further information since they just have partial information.

Table 5. Places Where People Shop for Organic Products

PURCHASING PLACES FOR ORGANIC FOODS (n= 622)		
	n	**%**
Market	240	38.6
Bazaar	163	26.2
Organic Markets	67	10.8
Organic Bazaar	94	15.1
Other*	58	9.3

Most of the respondents stated that they buy their organic food from markets (38.6%) followed by bazaars, organic bazaars, and organic markets. In fact, organic markets and bazaars are not very common in İzmir but Aegean region where İzmir is located is the main provider of organic food products for exports and domestic consumption. So it is not hard to find organically produced vegetables and fruits in local bazaars. Also some of the participants (9.3%) stated that they either go to nearby villages to buy organic products or, they produce and develop their own organic food in their own gardens

Table 6. Organic Food Preferences of Participants

	I always buy organic. %	I sometimes buy organic. %	It does not matter whether it is organic or not. %	I never buy organic. %	I have never met this product's organic version before. %	Mean
Fruit	20.1	61.6	11.9	4.3	2.1	2.0675
Vegetable	23.5	57.4	9.5	8.5	1.1	2.0643
Milk	24.9	44.4	16.6	10.9	3.2	2.2315
Egg	41.8	40.4	10.6	7.2	0.0	1.8328
Cheese	15.0	30.4	32.2	12.9	9.6	2.7186

Yoghurt	22.0	35.5	24.9	9.3	8.2	2.4614
Olive	31.0	28.1	21.9	13.5	5.5	2.3424
Meat	17.0	21.1	30.4	20.9	10.6	2.8698
Poultry	25.1	27.5	22.8	16.6	8.0	2.5498
Fish	30.4	19.9	26.0	13.3	10.3	2.5322
Pasta	4.0	19.5	33.0	24.8	18.8	3.3489
Bread	16.2	25.7	22.8	22.8	12.4	2.8939
Rice	8.7	22.8	26.8	22.0	19.6	3.2106
Dry legumes	9.8	26.7	28.1	19.9	15.4	3.0450
Oil*	24.0	27.2	20.9	15.4	12.5	2.6543
Butter	13.2	29.4	19.6	17.0	20.7	3.0273

n=622

Almost 42% of the participants that have stated a purchase of organic products said that they always prefer to buy organic eggs. Also as seen in Table 7 eggs are found to be the most frequently purchased organic food. This finding could be either related with the wide availability of the organic eggs and/or egg being one of the cheapest and widely used protein source of people in Turkey. The preference for organic eggs was also reported in previous studies (Armağan & Özdogan, 2005). This is followed by organic olive (31%), which is not surprising since many people living in Izmir and other places where olive agriculture is widespread, cultivate olive in their gardens and although their product may or may not be certificated, it is considered as organic olive oil. Further, 30,4% of the participants have stated that they always prefer organic fish. Considering the mean values, it can also be seen that organic eggs are the mostly preferred type of organic products followed by fruits and vegetables.

Table 7. Most Frequently Purchased Organic Food

	n	%
Egg	215	34.6
Fruit	95	15.3
Vegetable	89	14.3
Milk	59	9.5
Oil	40	6.4
Fish	32	5.1
Olive	25	4.0
Poultry	22	3.5
Yoghurt	15	2.4
Rice	7	1.1
Butter	7	1.1
Cheese	6	1.0
Bread	5	0.8
Dry legumes	5	0.8

n=622

Most frequently purchased organic foods by respondents were eggs, fruit, vegetables and milk followed by other products as could be seen in Table 7. This finding is

articulable since it is very easy to find organic eggs in market shelves. Also since this research is undertaken in a city where agriculture is widespread and people could easily reach fresh fruit or vegetables developed by villagers in bazaars and also produce their own vegetables. However, previous researches by Sarıkaya (2007), and İlyasoğlu et al. (2010) revealed that the main organic products purchased by consumers were fruits and vegetables. The difference in the findings could be attributed to the developments in poultry sector, and increased availability of organic eggs in the recent years.

Table 8. Why Do People Not Prefer Organic Food?

WHY DON'T YOU PREFER ORGANIC FOOD?	Completely Agree %	Agree %	Neither Agree nor Disagree %	Disagree %	Completely Disagree %	Mean
It is not different than conventional foods	11.5	26.9	34.6	26.9	0	2.7692
I do not believe that the so called organic food is in fact organic	34.6	3.8	51.9	9.6	0	2.3654
Organic food is expensive	78.8	21.2	0	0	0	1.2115
I can't find organic products where I shop	17.3	80.8	1.9	0	0	1.8462
I don't think that organic food is beneficial for my health	9.6	15.4	48.1	26.9	0	2.9231
I don't like the taste of organic food	0	0	50.0	13.5	36.5	3.8654
I don't like the appearance of organic food	1.9	32.7	23.1	32.7	9.6	3.1538
I think that they wait too long in market shelves	11.5	36.5	23.1	9.6	19.2	2.8846
I don't prefer organic food because their expiry dates are very short	13.5	36.5	21.2	0	28.8	2.9423

n=260

Most important reason why consumers do not prefer organic products is its expensive price (100%). This has been stated by all the participants. Second important reason for not preferring organic products has been stated as inability to find organic products in places where respondents shop (98.1%). Those findings support the foreign literature Zepeda and (Deal, 2009; Cerjak et al., 2010; Smith & Paladino, 2010; Stolz et al., 2010; Hjelmar, 2011; Hamzaoui-Essoussi & Zahaf, 2012; Lockie et al., 2002; Chryssohoidis & Krystallis, 2005; Zepeda & Deal, 2009; Hamzaoui-Essoussi & Zahaf, 2012) as well as Turkish literature (Hasançebi, 2010; Aygen, 2012, İlyaslıoğlu et al., 2010). Another important finding and at the same time an issue of importance that should be considered by governments and practitioners is that 34.6% of the respondents stated that they actually do not believe that "the so called organic food is in fact organic".

Table 9. Exploratory Factor Analyses Results of "Perception and Attitudes towards Organic Food" (both user and non-users of organic products)

	F1	F2	F3	Mean
Attitude and Intention(α= 0,807)				
In general I hold a positive attitude for organic produces	.845			1.8489
I will continue to buy organic products	.826			2.1114
I find it logical to consume organic food	.813			1.8250
The people I love have positive attitudes toward organic food	.658			2.5170
Price(α=0,627)				
I think organic products are only suitable for high income people		.837		2.0544
Organic food is too much expensive		.779		1.8175
If I would have an increase in my income I might think of consuming organic food		.571		1.9660
Consumption(α= 0,660)				
I cannot find organic products in places I shop			.908	3.1474
Even though I think organic products are healthy I do not buy them			.706	3.4002
Explained Variance (70,781)	33.073	21.077	16.631	

To run the exploratory factor analysis, KMO and Barlett's Test is conducted. KMO coefficient is 0.714 and the significance level of Barlett's Test is very significant (0.000). Items of the scale were grouped using principal component factor analysis with Varimax rotation with Kaiser Normalization, and 9 of the items were loaded under three factors explaining 70.781% of the total variance. The first factor containing 4 items is named as "Attitude and Intention". This factor explains 33.073% of the variance. It consists of items, reflecting positive attitudes regarding organic product purchase of the respondents. The second factor contains 3 items regarding price, thus this factor is named as "Price" factor. Price factor explains 21.077% of the variance. Finally, the last factor containing two items is named as "Consumption" and it explains16.631% of the total variance.

Table 11. Differences of Perception and Attitudes towards Organic Food among Users and Non-Users of Organic Products

	Users	**Non-users**	**Overall**
Attitude and Intention	**Mean**	**Mean**	**Mean**
In general I hold a positive attitude for organic produces	1.6323	2.3654	1.8489
I will continue to buy organic products	1.7637	2.9423	2.1114
I find it logical to consume organic food	1.6399	2.2692	1.8250
The people I love have positive attitudes toward organic food	2.2572	3.1346	2.5170

Price			
I think organic products are only suitable for high income people	2.2138	1.6731	2.0544
Organic food is too much expensive	1.8537	1.7308	1.8175
If I would have an increase in my income I might think of consuming organic food	1.8794	2.1731	1.9660
Consumption			
I cannot find organic products in places I shop	3.2170	2.9808	3.1474
Even though I think organic products are healthy I do not buy them	3.5514	3.0385	3.4002

(1= completely agree; 5= completely disagree)

As could be seen from Table 11, users of organic products hold much more positive attitude for organic products than non-users. Although both users and non-users consider organic products to be highly priced, non-users seem to be more price-sensitive, and consider them to be higher priced. However, convenience does not seem to be as problematic as price issues both for users and non-users.

Table 12. Exploratory Factor Analyses Results for "Why People Prefer to Consume Organic Food Products"

Reasons for buying organic food products (α= 0.766)	F1	F2	Mean
Health 1 (α= 0.842)			
They are healthier	.883		1.4486
They are better for my families health	.862		1.4678
They contain no additives	.781		1.3617
They do not make any harm to my health	.617		1.4662
They do not contain any GDO	.612		1.6463
Product related (α= 0.560)			
They taste better		.836	2.2460
Their nutritional value is higher		.706	2.2154
They look natural		.531	2.2444
Explained Variance (59.491**)**	37.869	21.622	

KMO coefficient is 0.806 and the significance level of Barlett's Test is very significant (0.000). Items of the scale were grouped using principal component factor analysis with Varimax rotation with Kaiser Normalization, and 8 of the items were loaded under two factors explaining 59.491% of the total variance. The first factor containing 5 items is named as "Health". This factor explains 37.869% of the variance. This finding is also supporting the existing literature as health being the main motivator of consuming organic food (Pellegrini and Farinello, 2009; Lockie et al., 2002; Magnusson et al., 2003; Chryssohoidis and Krystallis, 2005; Gracia & Magistris, 2008; Hughner et al., 2007; Li et al., 2007; Wier et al., 2008; Zepeda & Deal, 2009; Bellows et al., 2010; Cerjak et al., 2010; Hasançebi, 2010; Ergin et al.,

2011; Çabuk et. al, 2014). The second factor contains three items and it is named as "product related" factor. This factor explains 21.622% of the variance.

5.3.1. The Two-Step Cluster Analysis

Two-Step Cluster analyses has been used to group users and non-users of organic products into clusters (SPSS 23). The Two-Step Cluster Analysis procedure is an exploratory tool designed to reveal natural groupings (or clusters) within a data set that would otherwise not be apparent. This segmentation was based on demographical variables and the declaration to buy organic food. Categorical variables used for the cluster analyses were presence of little children at home, family life cycle, and gender. Continuous variables used were education, income, number of people living in the household and age. However, in further analyses family life cycle and number of people living in the house were eliminated from the cluster analyses due to their repressing impact covering other variables. In other word those variables were so effective in explaining purchase of organic food that it enabled to see the effect of other variables. To determine which number of clusters is "best", each of these cluster solutions is compared using Schwarz's Bayesian inference criterion (BIC). The final cluster analysis resulted into five segments with a Silhoutte measure of cohesion and separation very near to good (0.5).

Table 13. Clusters of Organic Food Consumption

Cluster	1	2	3	4	5
Label	Female users of organic products with no children	Male users of organic products with no children	Non users of organic products with high income and education	Non users of organic products with moderate income and education	Users of organic products with small children
Size	39.3%	23.4%	13.4%	13.0%	10.9%
Gender	Female	Male	Male	Female	Female
Number of children under school age	No children	No children	No children	No children	All of them have children
Income * (Median)	6	3	5	4	5
Education ** (Median)	6	5	6,99	3,1	6
Age Group ***	3	3	3,1	2	3
Purchase of organic food	Frequently 57.65%	Frequently 42.2%	Never 67.8%	Never 56.5%	Frequently 54.2%

* (1= 0-1.000; 2= 1.001-2.000; 3=2.001-3.000; 4= 3.001-4.000; 5=5.001-6.000; 6=6,001and over)
** (1= primary school; 2= secondary school; 3=high school; 4= associate degree; 5=university; 6= masters; 7=PhD)
*** (1=18-24; 2=25-35; 3=36-45; 4=46-55; 5=56-65; 6=66-74; 7=75 and over)

As a result of the cluster analysis five groups were identified. The first and largest group composes of females with no children. They have high income (5000-6000 TRY) and high education (master's degree or PhD) and the median of their ages are between 36-45. 57.65% of this group composes of frequent buyers of organic products.

Second group composes of male users of organic products with no children. The median of their ages are between 36-45 as the first group. However, this group has a medium income (2000-3000TRY) and mostly have a university degree. 42.2% of this group frequently consumes organic products.

Third group composes of non-users of organic products with high income (5.000-6.000 TRY) and education (master's degree or PhD). They are male, do not have children, the median of their ages are between 36-45, and even though they have high education and income 67.8% of this group has never purchased organic products.

Fourth group composes of non-user females. They have no children. They are younger (between 25-35), incomes are between 3000-4000 TRY and they are high school graduates. 56.5% of this group have never consumed organic food products.

The last group composes of females with small children who are frequent users of organic products (54.2%). They have high income (5000-6000 TRY) and high education (master's degree), and the median of their ages are between 36-45. Overall it could be stated that the clusters put forth a general picture of the segments for organic food marketers. Also, gender and having children under school age has been found to have the most predictor influence, and age the least predictor influence on the clusters.

6. Conclusions

Due to the increased number of illnesses resulting from unhealthy, genetically modified food products, consumers interest in healthy eating, and organic food products have been increasing and eating organic is in fact becoming a life style choice especially for health and environmentally conscious consumers. Our findings also show that people mainly consume organic food products due to health related issues. However, this increase of interest cannot directly be seen as an increase in organic food consumption in Turkey. The aim of this study was to achieve a better understanding of consumers' motivations and barriers for using organic food products, and draw a general picture for organic food consumers, attempting to offer more insights of Turkish consumers. Our results show that though all the respondents know something about organic food, more than half of them just have a partial knowledge. So educating the market about organic products should be an important concern. Also it is seen that, females, families with children and higher income

people are better customers for organic food products. Those findings also support the existing literature. Also five clusters of organic food consumers were identified. Of the five clusters three of them were users and two of them were non users. The cluster analyses also support our previous findings such that, gender and having children under school age has been found to have the most predictor influence, and age the least predictor influence on the clusters. Thus, targeting women, and families with children may be a better idea for organic food retailers. It is also seen that mostly consumed organic food products are eggs followed by fruits and vegetables.

The main barrier to increase consumption levels of existing customers and to increase primary demand by reaching non users is price factors and availability. Those findings have very important implications for practitioners and government. Even though Turkey has been an important agricultural country, it has been losing its competitiveness even in the production of conventional food products. Also, there seems to be a need to educate and support producers about organic farming, so that increased production would reflect itself in reduced prices and increased availability and convenience.

Another important finding, and at the same time an issue of importance that should be considered by governments and practitioners is that, 34.6 % of the respondents stated that they actually do not believe that "the so called organic food is in fact organic". The impact of food safety frauds, on people's opinion regarding organic foods can be two fold. Either it could motivate people to consume more organic products or it could damage the image of organic food by reducing the believability of organic claims. This could be the reason why 34.6% of the respondents' do not believe in organic products. This issue should be investigated further to see if this belief is in fact wrong or are there actually some misleading applications that creates this image. Whatever the real problem is, it should be solved since it may create an important barrier for organic food producers. Strict control of producers and retailers, and education of farmers and consumers may play an important role within this respect. Also informing customers about organic products, and the kind of labels and certifications that they should be seeking, might increase their awareness and consumers might make more conscious decisions. This is especially important for the attraction of non-users of organic products since they do not hold positive attitudes for organic products relative to the users. There may be opportunities to increase sales among people that currently buy no organic foods, but are considering buying organic foods in the future however, messages to different type of customers must be carefully targeted and build on their relevant values.

7. Limitations of the Study and Further Research

This study focuses on the intentions and stated behavior of the respondents regarding organic food purchases and also uses convenience sampling. Further studies can actually be applied to actual organic food consumers and to a much more representative sample.

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