



ISSN: 0975-833X

Available online at <http://www.journalcra.com>

International Journal of Current Research
Vol. 11, Issue, 01, pp.403-410, January, 2019

DOI: <https://doi.org/10.24941/ijcr.33993.01.2019>

INTERNATIONAL JOURNAL
OF CURRENT RESEARCH

RESEARCH ARTICLE

COMPARISON OF CONSUMER PREFERENCES FOR ORGANIC PRODUCT DEMAND: ROMANIA AND TURKEY

*¹Rahmiye F Ceylan, ²Metin G Akpınar, ³Mehmet Guven, ⁴Okan Ozaydin and ⁵Ana-Maria Cherciov

¹Dr, Akdeniz University Faculty of Agriculture Department of Agricultural Economics, Antalya - Turkey

²Assoc Prof, Dr, Akdeniz University Faculty of Agriculture Department of Agricultural Economics, Antalya - Turkey

³MSc Student, Akdeniz University Graduate School of Natural and Applied Sciences Department of Agricultural Economics, Antalya - Turkey

⁴Agricultural Engineer, Antalya - Turkey

⁵MSc Student, Department of Agricultural Economics, Graduate School of Natural and Applied Sciences, Akdeniz University, Antalya, Turkey & Department: Management of Sustainable Rural Development, Universitatea de Științe Agricole și Medicină Veterinară a Banatului Regele Mihai I al României, Timișoara, Romania

ARTICLE INFO

Article History:

Received 19th October, 2018

Received in revised form

16th November, 2018

Accepted 07th December, 2018

Published online 31st January, 2019

Key Words:

Organic product,
Consumer demand,
Consumer preferences,
Romania, Turkey.

ABSTRACT

Background: By the second half of 1980s, health sensitivity had started to rise in food and agricultural product consumption. In addition to health consciousness, rising environmental awareness and emphasis over achieving sustainability of agriculture, the definition of organic product was set forward and markets for both production and consumption of these products had started to emerge. Development of any sort of market can be achieved with evaluation of consumer expectations in developing countries. **Objectives:** Consumer valuation provides insights to producer markets and marketing organisations in terms of determination of marketing policy mix. Accordingly a brief survey was undertaken in selected provinces of Turkey and Romania to understand the acceptance of organic products and forecast the tendency to increase market share for those products in these two developing countries. **Methods:** The relationship between preferential factors and gender, education level, age, income level and occupational status of participants were assessed in the scope of the study. **Results and Conclusion:** The specialities and value of organic products were appeared as marketing mix components to be emphasized for the sample selected in two countries. It was understood that female consumers are more open to advertising efforts. Yet, alternative promotion tools should be developed for consumers with higher income and education levels. This situation is valid for both of these two developing countries.

Copyright © 2019, Rahmiye F Ceylan et al. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Citation: Rahmiye F Ceylan, Metin G Akpınar, Mehmet Guven, Okan Ozaydin and Ana-Maria Cherciov. 2019. "Comparison of consumer preferences for organic product demand: Romania and Turkey", *International Journal of Current Research*, 11, (01), 403-410.

INTRODUCTION

With the rising emphasis on understanding the factors affecting purchasing and consumption decisions, the need to consult consumers to develop marketing policy and tools has risen as well (Bagozzi and Dholakia, 1999). When the main consumption trends were assessed for developed and developing countries, it was confirmed that price has been the main motivator for normal goods (Maxwell, 2001; Soderlund, 1998). However, new approaches have been emerging with regards to sustainability of nature and environment and technological advancements have been observed for

agriculture and food production as it is the case for any type of productive processes. Acceptance of these new approaches affects both producer and consumer markets accordingly. One of the significant challenges in agriculture and food market has been development of organic farming and emergence of organic market (Maggie and Ajuruchukwu, 2014). Food quality and security have been the initial motivators in development of organic farming and organic markets. Additionally, pre-emption of importance of agricultural and environmental sustainability brought organic food industry in a significant position globally (Ustaahmetoglu and Toklu, 2005). Organic products had started to gain attention by the mid of 1980s, with a need to minimise chemical input use in agricultural production and assure environmental sustainability accordingly (Mulero et al., 2010; Morris et al., 2001;

*Corresponding author: Rahmiye F Ceylan,

Dr, Akdeniz University Faculty of Agriculture Department of Agricultural Economics, Antalya – Turkey.

Johansson, 1999). Yet, in contrast to limited chemical use, there appeared needs to incorporate more labour and biotechnological intervention in agricultural production and these led to rising costs and prices accordingly. Due to these high prices, it took time in consumer market to understand and accept organic products. Therefore, organic product demand evaluation based on income elasticity measures gained importance with respect to market entry especially in developing and underdeveloped countries with low per capita income (Inci *et al.*, 2017; Kozelová *et al.*, 2013). Subsequently, it is important to evaluate awareness and consciousness level of consumers and/or potential consumers, and to determine potential market development channels both for the market and researchers. It can be possible to induce demand for organic products by determination of consumer awareness level on organic products and their consumption preferences. Especially, it was expected that demand for trustable and traditional food will rise in the close future (Kozelová *et al.*, 2013). Accordingly, it is essential to determine consumer characteristics that may affect organic product demand and that may lead acceptance of the price premium for organic products. These characteristics are expected to contribute in marketing policy and tool development for organic food products market (Krystallis and Chrysosoidis, 2005).

With this perspective, face to face surveys were conducted in Timisoara province of Romania and Antalya province of Turkey in 2018. Data related with consumer demographics and consumption preferences interrelated with organic products was retrieved from 53 Romanian and 88 Turkish consumers. It was aimed to determine factors affecting organic product preferences and personal features affecting these preferences with this case survey. The complementary objective was to compare the findings for Romania and Turkey, the countries in which organic markets had not reached maturity level. Before proceeding, it is essential to overview the existing situation and development of organic markets with reference to production and consumption markets and it was aimed to provide information on evolution of organic market in the world, in Romania and in Turkey. The United States of America (USA) constitutes a specific case with the rapid developing market situation. 178 million Dollars of organic product sales value of 1980 had risen to 7.8 billion Dollars in 2000 and 43.3 billion Dollars in 2015 in the USA market (Vandeman and Hayden, 1997; Myers and Rorie, 2000; GwanSeon *et al.*, 2017). It was expected that there may be visible improvements in the USA and the European Union (EU) markets by 2020s. Main motivation behind this expectation was set forward as the rising demand for balanced and healthy diets due to the rising health sensitivity (Victoris *et al.*, 2016). After this general overview, it is necessary to consider specific country markets in details.

Development of Organic Market in Romania

Due to the records of Romanian Academy of Sciences, annual sales value of organic agricultural and food products corresponds to 1 % of total agricultural income of the country with 2 million Euros (Roman *et al.*, 2010). However, assessment of the domestic market revealed a rather low organic demand. Romanian citizens have been spending 4 Euros per capita on organic agriculture and food products per year (Petrescu *et al.*, 2017). In opposition to this current situation, subsidies to increase accessibility of products have

been provided across the EU member countries with an emphasis on extending the domestic market (Victoris *et al.*, 2016). Besides, access to products on retail market level has been rising in the recent years as well (Pop and Dabija, 2013). The dynamic structure of organic market in Romania can be understood better with a production perspective. Number of organic producers had risen to 2.775 in 2008 from 72 producers of 2000 (Victoris *et al.*, 2016). Yet, the market is under control of importers mainly and extension of market is interrelated with the domestic market potential. Domestic production can be induced by rising domestic demand and specific policies are required to increase demand for Romania, ranking 15th among the EU members with regards to domestic per capita organic product consumption (Petrescu *et al.*, 2017). In an earlier study, the most important factor affecting Romanian organic product demand had appeared as 'health sensitivity' (Vega-Zamora *et al.*, 2014). Consecutively, cultural, social and psychological characteristics of consumers were found as effective in organic product purchasing decisions. As well as demographic characteristics, factors like perceptions, attitudes, awareness level and openness to learning and new experiences are important in determination of marketing policy tools (Dahl, 2014).

Development of Organic Market in Turkey

Organic agriculture had entered into the agenda in Turkey residing on external demand as well. Organic agricultural production had started by 1984-1985 due to the demand from the European companies and the first legal arrangements were made in 1994, which was followed with a rising development of the market (Ozbilge, 2007; Ataseven and Gunes, 2008). Organic agricultural production had started with traditional crops. Firstly eight varieties of raisins, dried figs and apricots were entered in organic market in the Aegean region in 1985. The production became more widespread across Turkey with addition of nuts and cotton in the following years (Ataseven and Aksoy, 2000) and number of organic varieties has risen to 203 in 2006. In order to overspread organic agriculture movement with a correct methodology, Association of Ecological Agriculture Organisation (ETO) was established in Izmir province of Turkey in 1992. With efforts of ETO on training and extension, the cooperation between producer, exporter and researchers had extended (Aksoy and Altindisli, 1999; Ataseven and Gunes, 2008). After issue of the first organic agriculture directive in 1994, there appeared significant improvements in organic market. Turkey has an important potential in organic market due to vegetative diversity, existence of natural meadow and grasslands, existence of animal stock and abundance of labour force to be utilised. However, demand driven production is mostly vegetative, directs domestic markets and appears at very low levels (Bayram *et al.*, 2006). In addition to traditional nuts and dried fruits, production of main pulses and medicinal plants has been rising as well. Due to the data retrieved from Turkish Statistical Institute, 14401 producers had produced 421934 tonnes of organic products in 203811 hectares in 2005. Yet, the attention on organic agriculture has risen significantly that 75067 producers had supplied 2406606 tonnes of products from 543033 hectares in 2017 (TURKSTAT, 2018). Production and marketing of organic products has been maintained within a contract-based farming scheme in Turkey residing on the agreements. While there is limited available information on domestic consumption of domestically produced organic products, it is estimated that 95 % of the

production is being exported (Kenanoglu and Karahan, 2002; Ataseven and Gunes, 2008). However, domestic market has been growing in export competitors of Turkey. As an instance, 15 % of domestic organic production is being consumed within borders in Argentina and the rate is 57 % in Italy. Departing from these figures, it can be said that Turkish market falls apart from global improvements both in terms of raw and processed organic products (Kaya, 2003; Ataseven and Gunes, 2008). Subsequently, it is important to determine the factors and especially the income and price sensitivity of consumers that can affect consumer demand in order to develop marketing efforts in this field.

MATERIAL AND METHODS

Material: A pre-tested survey was applied in Timisoara province of Romania and Antalya province of Turkey in 2018 in order to retrieve information on organic product consumption preferences of consumers, and the consumer characteristics affecting those preferences. With an aim to compare consumer data for a randomly selected sample in a restricted time period, 53 consumers from Romania and 88 consumers from Turkey had indicated their preferential position regarding organic consumption. The random face to face interview methodology was selected due to time and financial limits of the research.

Methods: Main objective of the study has been detection of significant and interpretable relationships between organic product consumption preferences and consumer demographics. Accordingly, in addition to categorised consumer characteristics, the consumers were asked to scale main features of organic agricultural and food products reflecting their perceptions and preferences. The targeted consumers had scaled their preferences from ‘not important at all – 1’ to ‘extremely important – 5’ (Likert, 1967). The data was interpreted with SPSS statistical package and existence of a co-movement between consumer preferences and characteristics was tested with Chi-Square testing in addition to existence of a linear relationship.

Relationship analysis encompasses testing a joint trend between quantified two variables (Moore and McCabe, 2003; Kader and Franklin, 2008). Accordingly, existence of the linear relationship between variables was tested by Pearson correlation coefficient ranging between -1 and +1 (Pearson, 1920; Blyth, 1994a). This statistic is mainly used to test significance and direction of the relationship between categorised variables (Zimmerman, 1994). After this a-priori evaluation, the impact of socio-demographic consumer characteristics of the selected sample on organic product preferences was tested with Chi-Square testing. Chi-Square test is a relationship interpretation tool specifically used in marketing research, which provides efficient results even in small samples (Akpinar *et al.*, 2009; Kurtulus, 1998; Blyth, 1994b). The level of effects and relationships between correlated variables can be detected in the scope of this testing procedure. The main factors affecting Romanian and Turkish consumers on organic product preferences departing from provincial level sample were tested with the following hypotheses in the scope of this study.

- H₁:** There is a significant relationship between preference criteria and gender.
- H₂:** There is a significant relationship between preference criteria and age.
- H₃:** There is a significant relationship between preference criteria and level of education.
- H₄:** There is a significant relationship between preference criteria and level of income.
- H₅:** There is a significant relationship between preference criteria and occupational status.

RESULTS

Comparison of Descriptive Features between Romanian and Turkish Consumers: There are various factors affecting purchasing decisions of individuals. The most significant of these factors are economic, social and psychological. Accordingly, it was considered as important to evaluate and compare consumer profile of two different samples selected for the study.

Table 1. Profile of Interviewed Romanian Consumers

Gender	Education	Civil Status	Occupational Status
Female	29 Secondary	7 (%13) Single	32 Student 30
Male	24 Tertiary +	46 (%87) Married	14 Employed 19
		Married with Children	6 Unemployed – Out of Labour Force 4
		Divorced-Separated	1

Table 2. Profile of Interviewed Turkish Consumers

Gender	Education	Civil Status	Occupational Status
Female	41 Primary	2 Single	41 Student 42
Male	47 Secondary	41 Married	39 Employed 46
	Undergraduate+	45 Married with Children	6
		Divorced-Separated	2

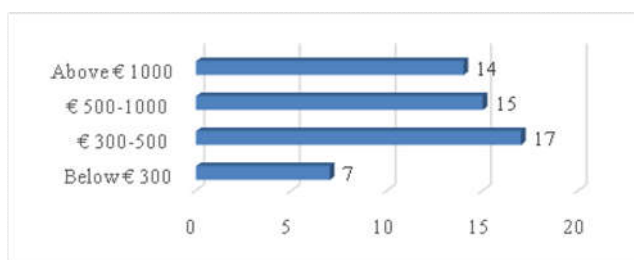


Figure 1. Income Distribution of Interviewed Romanian Consumers

When we consider Romanian case in Table 1, 29 of 53 interviewed consumers were female. While 38 persons in this target group were between 20-29 years old (72 %), 13 of the group were between 30-39 years old and the remaining 4 interviewees were between 40-49 years old. The education level of the sample was considerably high. 87 % of the sample was composed of at least Bachelor's graduates and the remaining 13 % were holding a secondary level degree. When the employment status of target audience was overviewed, it was understood that most of the participants were university students (Bachelor's and above). While 30 correspondents were university students (56,6 %), four of them were unemployed. These four individuals were recorded as housewives and they are out of labour force. The consumers were living in crowded families that 44 of the households (83 %) were composed of families with 3 or more members. Following this general assessment, one of the most significant indicators with regards to organic consumption was considered as income level of consumers. The average monthly income of interviewed consumers was 653,3 Euros as of February 2018. The scaled distribution of income was as demonstrated below in Figure 1.

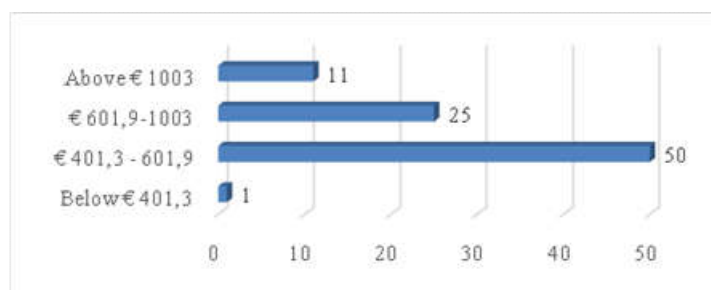


Figure 2. Income Distribution of Interviewed Turkish Consumers

Table 3. Linear Relationship between Consumer Profile and Preferences – Romania

	Gender	Age	Income	Employment Status	Civil Status	Household Size
Product Assortment			0.37 (0.006)**			
Price	0,275 (0,034)**				0.258 (0.062)*	
Price-Quality Relationship						
Availability	0,217 (0,096)*	-0.25 (0.071)*				-0.286 (0.038)**
Distribution				0.305 (0.027)**		-0.247 (0.075)*
Promotion	0,302 (0,019)**					
Advertisement	0,224 (0,085)*					
Reliability						
Satisfaction	0,265 (0,04)**			0.233 (0.093)*		
Taste						

*, 90% significance; **, 95% significance

Table 4. Relationship between Consumer Demographics and Preferential Criteria – Romania

Pearson's $X^2 - (p)$	Gender	Age	Education	Income	Employment Status	Household Size
Quality						
Price					14.191 (0.08)*	
Product Assortment						29.195 (0.08)*
Availability		14.004 (0.08)*				
Price-Quality Relationship			11.655 (0.02)**	18.667 (0.097)*		
Distribution						33.868 (0.03)**
Advertisement	9.187 (0.057)*					
Reliability			8.51 (0.075)*			

*, 90% significance; **, 95% significance

When the same features are considered for Turkey, 41 of correspondents were female out of 88 individuals interviewed as demonstrated in Table 2. More of the correspondents were between 30-39 years old with 31 % (27 persons). This group was followed with 20-29 age group with 26% (26 persons). There were 19 people between 40 and 49, and 9 people both

between 50 and 59 and below 20 years old. This age distribution is acceptable for the target audience, of which 52 % was employed. While 49 % of the group constituted of primary and secondary level graduates, 45 participants seemed to have completed college education of two years, most of whom continues education on tertiary level. Subsequently, it is beneficial to note that the household size distribution is similar with that of interviewed Romanian consumers. While 68 correspondents seemed to have families with at least two members, 11 were living alone, most of whom were students. When the income distribution of target audience was considered, it was understood that most of the audience seemed to have an average income above 2000 Turkish Liras (TL) (401.3 Euros)¹ as demonstrated in Figure 2. The average income of the audience was 2800 TL, which corresponds to 560 Euros.

Differences in Organic Product Consumption Preferences for Romania and Turkey

Firstly, it is beneficial to evaluate features attributed to organic products by consumers of two countries.

It was understood that all consumers interviewed in Romania were aware of organic products. While the first characteristic acknowledged on organic products was 'healthy food' by 59 %

¹ Average Euro/TL rate for April 2018 was: 1 Euro= 4,984 TL. And this rate was used from here after.

for Romanian consumers, the second was 'environmentally friendly'. The same evaluation for Turkey indicated a ranking with 'environmentally friendly' and 'taste' consecutively. Subsequently, it is important to evaluate the product characteristics attributed to organic products. Consumers were asked to rank pre-selected product characteristics from 1 (the least important characteristic) to 5 (the most important characteristic). The factor averages of preference characteristics were demonstrated in Figure 3 for Romania and in Figure 4 for Turkey. Figure 3 sets forward that consumers valued price convenience and product assortment almost negatively, while taste, satisfaction level and reliability of organic products were valued positively. On the other hand, 3,3 factor value of price-quality relationship indicated that consumers, who find prices high, value price-quality relationship positively. When the same assessment was replicated for Turkey, it was understood that there are more negative perceptions and consumers only valued product assortment and product availability positively. The average scores were demonstrated in Figure 4. As an overall idea on consumers' perceptions in both countries were provided, it is essential to evaluate the correlations of these perceptions with consumer profiles.

Firstly, it can be noted that female consumers are more open to be affected by consumption characteristics. Price and product availability are important preference criteria for females. In accordance with this, female consumers, who get affected from promotional activities, seemed to consider that advertisement efforts are also effective. Besides, having satisfied with the product is also important for female consumers that the correspondents indicated they would only rebuy a product, organic or not, if they get satisfied with it. As consumers get aged, they attribute more importance to product availability. This criterion is not such significant for young consumers. While, distribution channel variety and satisfaction level appeared significant for employed consumers, it was understood that product assortment expectations appeared as important for consumers with rising income. When the civil status was evaluated, it is possible to consider price sensitivity of individuals who are married and who have children. Family cycle considerations led us to note that availability and more alternatives for distribution channels became less important for crowded families. Afterwards, the relationships between socio-demographics and preferential factors were tested with Chi-Square test and findings were demonstrated in Table 4.

Table 5. Linear Relationship between Consumer Profile and Preferences – Turkey

	Gender	Age	Income	Employment Status	Education
Product Assortment				-0,215 (0,044)**	
Price			-0,233 (0,029)**		
Advertisement				-0,191 (0,074)*	-0,226 (0,034)**
Reliability					
Satisfaction					
Taste	0,189 (0,078)*	-0,204 (0,057)*			

*, 90% significance; **, 95% significance

Table 6. Relationship between Consumer Demographics and Preferential Criteria – Turkey

Pearson's $X^2 - (p)$	Gender	Age	Employment Status
Availability		30,369 (0,064)*	11,512 (0,021)**
Price-Quality Relationship			
Distribution		33,096 (0,033)**	18,492 (0,01)***
Advertisement	8,452 (0,076)*		9,982 (0,041)**
Reliability	9,181 (0,027)**		
Quality	8,293 (0,081)*		

*, 90% significance; **, 95% significance, ***, 99% significance

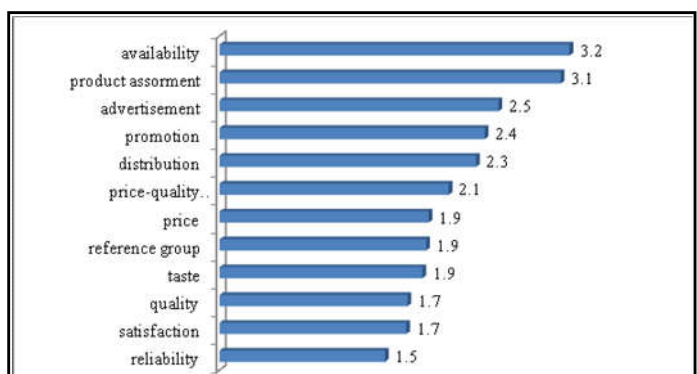
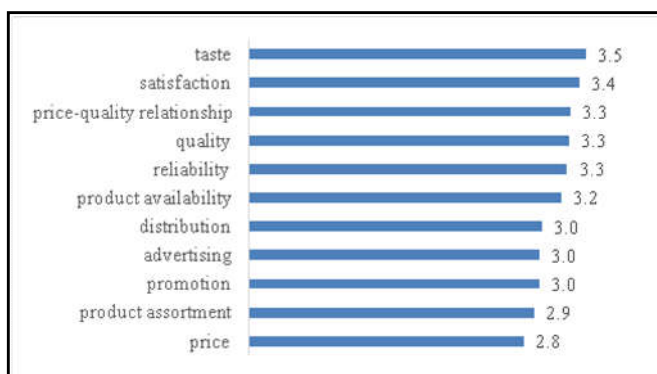


Figure 3. Evaluation of Organic Product Characteristics-Romania **Figure 4. Evaluation of Organic Product Characteristics-Turkey**

Organic Product Preferences and Consumer Profile for Romania

In terms of relationship analysis, the existence of a linear relationship between socio-economic characteristics of consumers and their valuation of organic products were checked firstly with correlation coefficients. The direction and weight of the linear relationships were provided in Table 3.

The results, which were indicated due to availability of a relationship, inferred that female consumers get affected from advertisement efforts more and availability becomes more prevalent with ageing of the consumer. Rising level of education and income has signed an appreciation in consumer conscious that consumers starts to assess price-quality relationship rather than considering price or quality alone.

Product reliability criterion becomes prevalent for more educated consumers and price valuation and employment status seemed to be correlated as expected. Additionally, product variety and number of distribution channels become more important with rising number of households. Yet, there appeared no significant relationship between socio-demographics and satisfaction level or taste. Most significant indicator reached with the analysis was the importance of price and quality assessment or comparison for rising level of education with 95 % significance.

Organic Product Preferences and Consumer Profile for Turkey: The analyses conducted for Romanian sample were replicated for Turkish sample composed of 88 interviewed consumers prior to comparison of results. The linear relationship analysis findings were demonstrated in Table 5. Due to these findings, female consumers seemed to get affected from taste satisfaction of food products. Turkish consumers in the target audience have a higher mean age than investigated Romanian consumers. In accordance with this comparison, there is a negative and significant relationship between taste and product valuation for Turkish consumers. This means older consumers pay less attention on taste in food preferences. While product assortment or advertisement efforts are not significant in preferences for employed citizens, price sensitivity of consumers with rising income seemed to decline as expected. With rising education, advertisement becomes less prevalent in organic product purchases. One of the most significant findings of this research is related with family life cycle. As an instance, the rising number of households has no impact over organic consumption preferences. Following the confirmation of linear relationships, the efficiency of the relationships was tested with Chi-Square and the results were provided in Table 6. It is important to note that it was firstly intended to evaluate the relationship between five categorical characteristics and preferential factors attributed to organic products. However, level of education and income were not appeared as effective factors on Turkish consumers' preferences. Significant and meaningful relationships were appeared only for gender, age and employment status of individuals. Among these characteristics, importance of the relationship between gender and getting affected from advertising efforts was confirmed like as the relationship analysis results. In addition, taste and product reliability had appeared as important preferential criteria with gender. Product availability and abundance of distribution channels were detected as important for rising age. In other words, ease of reaching products is an important factor for elderly. Product access was also important for unemployed consumers that still take place in the labour force as well as for employed consumers. It was also understood that employed consumers were affected from advertisement efforts. Yet, when the linear relationship analysis was revisited, it can be confirmed that advertisement is not a factor rising organic consumption motivation of employed consumers.

RESULTS AND DISCUSSION

The initial inference from the research is related with the need for additional actions to improve marketization of organic products in two developing countries, in which level of domestic organic product consumption have been low. Prior to setting forward research suggestions for organic market development in two countries, it is important to revisit marketing mix components. Marketing mix of 4Ps is composed of product, price, place and promotion as

determined by McCarthy (1978). Kotler added 4Cs corresponding to consumer valuation of marketing in this definition (Kotler, 1998). Accordingly, consumer or customer valuation of product matches with characteristics of the product, cost born by the consumer matches with price of the product. Convenience of the product is related sales venue (place) and customer relationship matches with promotional efforts. These attributes was extended involving service marketing and 4Ps had risen to 7Ps recently. The added criteria were physical output of the service, process management and personnel management (Alabay, 2010; Uner 1994). Yet, strategic approaches considering product marketing can still be maintained with 4Ps. Departing from here, it is possible to retrieve some suggestions concerning promotion and domestic marketization of organic products for Romania and Turkey. When we evaluate the results for Romania, it is possible to consider high price sensitivity of female consumers and married consumers having children. Emphasizing product value and price-quality relationship can be considered as a correct approach for these consumers. Additionally, product availability, or ease of reach, and advertisement and promotional efforts are more effective on female consumers. When the effect of development of distribution channels for employed consumers are considered as well, abundance of presentation and sales venues and improvement of information channels would constitute an important departure point for organic agricultural and food product producers intending to serve domestic market.

For the concerned sample, there appeared a rising demand for more organic product variety and significance of price-quality relationship for more educated consumers with higher income potential was prevalent. Accordingly, focusing on marketing efforts emphasizing product value can contribute positively to rising education and information access of the potential consumers. In this means, departing from even this small sample of Romanian consumers, rising information on product and product value, enriching distribution channels and providing more venues and reaching them with proper communication tools are expected to contribute in domestic marketization of organic products. It is expected that these efforts may meet the marketing targets in Romania, where number of producers is rising with a high speed apparently. When the findings retrieved from Turkish consumers was evaluated in the same framework, it can generally be inferred that organic marketization in Turkey falls behind. Hardship to leave traditional consumption preferences can be understood from the importance of taste for female consumers specifically. Yet, taste loses its importance in consumption preferences with rising age and this is actually related with healthy nutrition considerations for elderly. With rising income price sensitivity and taking price as the reference point in consumption decisions declines and this is in conformity with expectations. In addition, when the linear relationships were overviewed, prevalence of advertising efforts declines for employed population and with rising education. This inference sets forward the need to present alternative promotional tools.

However, in interpretation of hypothesis set forward, it was understood that there appeared no statistically significant relationship between preferential factors and level of income and education. Gender as a main indicator signed that product reliability is also important as taste of the product. While effectiveness of product availability and distribution channels was related with age and employment status, the negative

impact of conventional advertisement tools on employed consumers was confirmed.

Conclusions

Due to these findings, product appeared as the most important marketing mix component, which should be given specific attention. The importance of price-quality relationship for Romanian consumers was completed with importance of taste and reliability of product. Therefore, how product is evaluated by consumers or potential consumers is important and efforts are needed to improve this evaluation positively. Place as another component of marketing mix is evaluated with product accessibility and effectiveness of distribution channels. The impact of these factors rises with age in both countries. Besides, product availability and distribution channels are also important for employed consumers who mainly lack time. Subsequently, there is a need to improve distribution channels and accessibility of products in order to induce domestic demand for organic agricultural and food products. In this respect, it is also important to remember that respecting price and costs that affect price formation should be considered in organic product marketization. In other words, it is possible to suggest marketing of organic products in special stores dispersed in the cities, referring to level of income and education, rather than provision of products in all sort of shopping markets or supermarkets.

An important finding of the study was the negative impact of advertising efforts on individuals with rising education and income level in opposition to its positive effect on female consumers. As conventional advertisement tools are not widespread in organic marketing, use of alternative promotional tools can be considered as beneficial for these countries, where organic marketization is on the way recently. Consequently, the effect of demographic characteristics of Turkish and Romanian citizens departing from randomly selected consumers was assessed on organic consumption preferences.

While income and price sensitivity of consumers were expected due to the nature of products, the feedback received infers that alternative marketing efforts, specifically on product access and special promotion, are needed for organic marketization and development of the market. The findings of the research also indicated that producers, who mainly focus on production for export markets, should also analyse and consider domestic market conditions more seriously. When continuously rising number of operators is considered, empowerment of these suppliers' condition within the market and involvement of new market actors can only be achieved with improvement of domestic market. Therefore, the feedback received from consumers, most of whom have a high education level than the society's average, signs the need to improve production and marketing efforts for domestic organic product marketization.

Acknowledgment

The manuscript is first presented in 13th National Agricultural Economics Congress held in Kahraman Maras in Turkey 12-14 September 2018 with a title of 'Relationship between Consumer Preferences and Consumer Profile in Organic Product Demand: Comparison between Romania and Turkey'. However, the manuscript was not published in the scope of the congress in full text.

Author Contributions: The methodological plan and direction of the analyses were maintained by Dr. RFC and Assoc. Prof. MGA. The field survey in Romania was completed by A-MC. The field survey in Turkey was completed by MG and OO. The analysis and layout was maintained under coordination of Dr. RFC.

Conflict of Interest: Authors declare no conflict of interest.

REFERENCES

- AKPINAR M.G., AYKIN S.M., SAYIN, C. AND OZKAN B., 2009. The Role of Demographic Variables in Purchasing Decisions on Fresh Fruit and Vegetables. *Journal of Food, Agriculture & Environment*, 7(3&4), 106-110.
- AKSOY U., ALTINDISLI A., 1999. Dünya'da Türkiye'de Ekolojik Tarım Ürünleri Üretimi, İhracatı ve Geliştirme Olanakları. (Production, Export and Improvement Potential of Ecologic Agricultural Products in the World and in Turkey) Istanbul Chamber of Commerce, Pub No: 1999-70, Istanbul.
- ALABAY M.N., 2010. Geleneksel Pazarlamadan Yeni Pazarlama Yaklaşımlarına Geçiş Süreci. (The Process from Traditional to New Marketing Approaches) Suleyman Demirel University *Journal of Faculty of Economic and Administrative Sciences* 15(2), 213-235.
- ATASEVEN Y., AKSOY F., 2000. Türkiye'de Organik Tarımın Yayılması ve Benimsenmesi Üzerine Bir Çalışma. (A Research on Extension and Acceptation of Organic Farming in Turkey) Ankara University, Fac. Of Agriculture, non-published Bachelor's Thesis, Ankara.
- ATASEVEN Y., GÜNEŞ E., 2008. Türkiye'de İşlenmiş Organik Tarım Ürünleri Üretim ve Ticaretindeki Gelişmeler. (Development in Production and Trade of Processed Organic Agricultural Products in Turkey) Uludağ University, *Journal of Fac. Of Agriculture*, 2008, 22(2), 27-28.
- BAGOZZI RP and DHOLAKIA UM. 1999. Goal Setting and Goal Striving in Consumer Behavior. *Journal of Marketing*, 63, 19-32.
- BAYRAM B., YOLCU H., AKSAKAL V., 2006. Türkiye'de Organik Tarım ve Sorunları. (Organic Farming in Turkey and Its Problems) Ataturk University, *Journal of Fac. of Agriculture*. 38(2), 203-206. 2007 ISSN:1300-9036- s.205
- BLYTH S.J., 1994a. Karl Pearson and the Correlation Curve. *International Statistical Review/ Revue Internationale de Statistique*, 62(3), 393-403.
- BLYTH S.J., 1994b. Measuring Local Association: An Introduction to the Correlation Curve. *Methodology*, 24, 171-197.
- DAHL D., 2014. Social Influence and Consumer Behavior. *Journal of Consumer Research*, 40(2), iii-v.
- GWANSEAN K., SEOK J.H., MARK T.B., 2017. A Hierarchical Model for Organic Food Expenditures in the U.S. Social Sciences Research Network. Available at: SSRN: <https://ssrn.com/abstract=2916250> or <http://dx.doi.org/10.2139/ssrn.2916250>
- INCI H, KARAKAYA E., SENGUL A.Y., 2017. Organik Ürün Tüketimini Etkileyen Faktörler (Diyarbakır İli Örneği) (Factors Affecting Organic Product Consumption – Diyarbakır Province Sample) *KSU J. Nat. Sci.*, 20(2), 137-147.
- JOHANSSON J., 1999. Organic Farming Possibilities to increase Organic Cereals Production in Skåne: A

- Comparative Study of Sweden and Denmark. MSc, Lund University, International Institute for Industrial Environmental Economics, Lund (2000:4), 71pp.
- KADER GD and FRANKLIN CA 2008. Data Analysis and Probability. *The Mathematics Teacher*, 102(4), 292-299.
- KAYA, H.G., 2003. Dünyadave Türkiye'de Organik Tarımsal Ürün Ticaretive Tüketici Reaksiyonları (Organic Agricultural Product Trade in the World and in Turkey and Consumer Reactions) Ministry of Agriculture and Rural Development, Directorate of Marketing and Foreign Trade, Ankara.
- KENANOGLU Z., KARAHAN O., 2002. Policy implementations for organic agriculture in Turkey. *British Food Journal*, 104(5), 300-318.
- KOTLER P. 1998. 4P öldüyaşasın 4C (4Ps died, Here comes 4Cs). *KariyerDunyası*, 7, 92-95. (Career World, 7, 92-95).
- KOZELOVÁ D., FIKSELOVÁ M., VIETORIS V., CZAKO P., 2013. Analysis of the Slovak consumer Behaviour Regarding the Organic Food Purchase. *Acta Univ. Agric. Silvic. Mendelianae Brun*, 61, 2343-2350
- KRYSTALLIS A., CHRYSSOHOIDIS G., 2005. Consumers' Willingness to Pay for organic Food: Factors That Affect it and Variation Per Organic Product Type. *British Food Journal*, 107(5), 320-343.
- KURTULUS K., 1998. Pazarlama Arastirmalari – *Marketing Research*. AvcioI Basim Yayin, Genisletilmis Altinci Baski, Istanbul.
- LIKERT R., 1967. The Method of Constructing an Attitude Scale. Readings in Attitude Theory and Measurements. John Wiley and Sons Inc. New York, pp. 90-95.
- MAGGIE K.L., AJURUCHUKWU O., 2014. Analysis of production and Consumption of Organic Products in South Africa, Organic Agriculture Towards Sustainability, Prof. Vytautas Pilipavicius (Ed.), ISBN: 978-953-51-1340-9, InTech, DOI: 10.5772/58356.
- MAXWELL S., 2001. An Expanded Price/Brand Effect Model. A Demonstration of Heterogeneity in Global Consumption. *International Marketing Review*, 18(3), 325-343.
- McCARTHY E.J., 1978. Basic Marketing. 6th Ed. Richard Irwin Inc. New York
- MOORE D., McCABE G., 2003. Introduction to the Practice of Statistics. 4th ed. W. H. Freeman and Company.
- MORRIS C., HOPKINS A., WINTER M., 2001. "Comparison of the Social, Economic and Environmental Effects of Organic, ICM and Conventional Farming", Final Report to the Countryside Agency, Institute of Grassland and Environmental Research, 155p.
- MULERO J., PARDO F., ZAFRILLA P., 2010. Antioxidant Activity and Phenolic Composition of Organic and Conventional Grapes and Wines. *Journal of Food Composition and Analysis*, 23(6), 569-574. ISSN 1096-0481.
- MYERS S., RORIE S., 2000. Facts and Stats: the Year in Review. *Organic & Natural News*, 20-25.
- OZBILGE Z., 2007. An Analysis of Organic Agriculture in Turkey: The Current Situation and Basic Constraints. *J. of Central European Agr.*, 8 (2), 213-222
- PEARSON K., 1920. Notes on the History of Correlation. *Biometrika*, 13, 25-45.
- PETRESCU D.C., PETRESCU-MAG R.M., BURNY P., AZADI H., 2017. A new wave in Romania: organic food. Consumers' motivations, perceptions, and habits, *Agroecology and Sustainable Food Systems*, 41:1, 46-75, DOI:10.1080/21683565.2016.1243602
- POP AI N. AI, DABIJA D.C., 2013. The Changing Business Landscape of Romania, Lessons for and from Transition Economies. 2013, Springer, New York, pp. 45-60 (Eds: Thomas AR, Pop N AI, Constantin B).
- ROMAN G.V., 2010. Ituația Agriculturii Ecologice în România. [cit. 2014-08-15]; (cited in: VIETORIS et al. 2016.)
- SODERLUND M., 1998. Customer Satisfaction and Its Consequences Customer Behavior Revisited. *International Journal of Service Industry Management* 9(2), 169-171.
- TURKSTAT, 2018., 2018- (<http://www.tuik.gov.tr>)
- UNER, M., 1994. Hizmet Pazarlamasında Pazarlama Karması Elemanları Değişiklik Gösterir Mi? (Do Marketing Mix Components Change in Services Marketing?) *Pazarlama Dnyası*, 8(43), 2-11. (Marketing Worlds, 8(43), 2-11).
- USTA AHMETOĞLU E., TOKLU T.I., 2015. Organik Gıda Satın Alma Niyetinde Tutum, Sağlık Bilinci ve Gıda Güvenliğinin Etkisi Üzerine Bir Araştırma. (A Research on the Effects of Attitudes, Health Consciousness and Food Safety on Organic Food Purchasing Intentions) *Ekonomik ve Sosyal Araştırmalar Dergisi*, 11(1), 197-211. (*Journal of Economic and Social Research*, 11(1), 197-211.)
- VANDEMAN A., HAYDEN B., 1997. New Law Paves Way for Expanding Organic Market. *Food Review: The Magazine of Food Economics*, 20(2), 28-32.
- VEGA-ZAMORA M., TORRES-RUIZ F.J., MURGADO-ARMENTEROS E.M., PARRAS-ROSA M., 2014. Organic as a Heuristic Cue: What Spanish Consumers Mean by Organic Foods. *Psychol. Marketing*, 31(5), 349-359.
- VIETORIS V., KOZELOVÁ D., MELLEEN M., CHRENEKOVÁ M., POTCLAN J.E., FIKSELOVÁ M., KOPKÁŠ P., HORSKÁ E., 2016. Analysis of Consumer Preferences at organic Food Purchase in Romania. *Pol. J. Food Nutr. Sci.*, 66(2), 139-146
- ZIMMERMAN D.W., 1994. A Note on Modified Rank Correlation. *Journal of Educational and Behavioral Statistics* 19(4), 357-362.
