

Who is Paying More for Organic Food? - Evidence from a Developing Country Considering Socio-Demographic Characteristics of Consumers

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Abstract: - This paper addresses the willingness to pay an additional price for the purchase of organic fruits and vegetables by analyzing the factors that influence consumers in their choice. To carry out this research, we studied consumer behaviour in the Gjirokastra region. At first, through questionnaires, primary quantitative and qualitative data were collected. The data were analyzed through SPSS software version 21. The questionnaire feedback was analyzed with descriptive statistics, and inferential statistics combined with comparative interquartile analysis, for which comparative box plots were used. To evaluate the influence of independent variables on the willingness to pay an additional price for the purchase of organic fruits and vegetables, we used the multivariate linear regression model. Multivariate regression is used for the explanation and prediction of the behaviour or levels of a variable or phenomenon, when one or several other variables, which are thought or proven to be related or influence over it, change to a certain extent or direction. At the end of the paper, it was found that socio-demographic factors have a significant impact on the willingness to pay an additional price for organic products.

Keywords: -Willingness to pay, socio-demographic factors, organic product, Multivariate Linear Regression

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1 Introduction

Nowadays, the growing demand for organic or bioproducts is leading to the development of organic agriculture everywhere in the world. Today, on a global level, 1.6% of agricultural land is dedicated to organic agriculture, while for the European continent, this figure reaches 9.2%. In 2020, sales of organic food and beverages at the global level reach 120 billion Euros, of which, 52 billion belong to European countries, led by Germany and France, with respectively 15 billion Euros and 12.9 billion, [1].

In Albania, organic agriculture dates back to 1999 when the first certification of domestic fresh herbs took place, [2]. Currently, the organic agriculture trend is on the increase. In 2020, the

number of farms that cultivate organic agricultural products was 113, compared to 89 in 2019. The biggest focus of organic farms is on those that cultivate aromatic and medicinal plants with 49 farms, followed by those that cultivate fruit trees, 19 farms. The interest in growing vegetables continues to remain low. However, the area planted with organic products in Albania in 2021 reached the highest value of 1097ha, [3].

The area dedicated to organic agriculture in Albania is modest compared to other European countries (only 0.1% of the total area of agricultural land). Retail sales of these products are also modest, [1].

The study area is the region of Gjirokastra. The region has a favorable geographical position, with

the most important area being the Drino valley, where the agricultural space is the fundamental component of its agrarian ecosystem, which directly determines the dynamics of this ecosystem. This agricultural space is presented as a complex of natural and human elements and factors in constant interaction and change, [4].

These data show that the organic food market in Albania is in its infancy, but positive developments including an increase in the share of regular consumers, who form the basic segment of the organic food market, are also noticed, [5]. Research on consumer preferences and factors influencing their willingness to pay is limited in Albania. Actually, few researchers are focused directly on the factors influencing the willingness to pay for organic food among Albanian consumers. The latest study focusing on organic food analyses the perceptions of Albanian consumers regarding the organic attributes of fresh fruits and vegetables. In the same study, researchers estimated Albanian consumers' willingness to pay for this category of products through the Contingent Valuation Method, [6]. Another earlier study analyses tomato attribute consumers' preferences. This study also developed consumers' classes based on their choice behaviour using Conjoint Choice Experiments and Latent Class Analysis, [7]. Considering the expansion of consumers interested to buy organic food as well as the limited literature focusing on organic food consumers and products in Albania, there is a notable need for research in this field. In this paper, we have focused on the willingness to pay an additional price based on the influence of the socio-demographic characteristics of consumers. To measure this impact, we use the Multivariate Linear Regression model to relate the independent variables with the dependent one. More specifically, since organic food consumers are not demographically homogenous, empirical research in this direction will help in describing the so-called "organic food consumers" in Albania. The study in turn will contribute to a better orientation of further research.

2 Literature Review

In Albania, studies regarding consumer preferences and willingness to pay (WTP) for organic food products are limited and mainly focused on organic fresh produce, [6], [7], [8], [9], [10], [11]. At an international level, authors have focused their research work on the way different consumer groups approach fresh or processed organic food products, their preferences, and WTP for these products, [12],

[13]. Regardless of the fact that such research is based in the context of foreign markets, their findings are coherent. Thus, some studies show that organic products seem to be superior to conventional ones when it comes to consumer preferences, [14], [15], [16], while others suggest the opposite [17], [18], [19]. According to [7], organic products in Albania are generally preferred over conventional ones.

WTP a premium for organic food differs among various consumer segments and product categories, [13]. According to [12], there exists a positive relationship between organic food and WTP. Consumers are ready to pay extra money for some type of processed food made with organic fruit and vegetables. However, their WTP, among others, depends on food distribution channels, purchase frequency, and food category. According to [7], Albanian consumers express their WTP as a premium price for organic food products, and this price varies among different consumer groups.

In Albania, studies on the influence of socio-demographic factors on the WTP for organic products are missing, while foreign literature in this direction is abundant. Based on this literature, the range of factors influencing WTP includes product quality and safety, trust in certification, prices, and socio-demographic factors. In [20], the authors found that the effect of food quality and trust in certification on WTP differs according to food category. The same authors discovered that socio-demographic factors do not constitute determinants of organic WTP. However, other studies confirm that education, gender, age, and income level influence WTP, [21], [22], [23]. Consumers with higher education levels express a higher willingness to purchase organic food, [21], [22]. Among organic food consumers, women, younger age groups and those with a higher level of income may be willing to pay more for organic food, [23]. Access to organic food is an important determinant of the likelihood of a household buying organic food products, [21].

Organic food consumers show to be different from consumers of conventional food because their attitude toward products' attributes is quite different. According to [24], price plays an important role as a quality proxy. Organic food consumers show a lower price sensitivity than the occasional and non-organic ones, [25]. They perceive organic food as more valuable even if relatively higher prices and poorer availability of organic products compared with their conventional counterparts could limit the purchase and the quality perception, [26]. Organic food consumers differ

from conventional food consumers even in the motives that drive their food choice. Important drivers of food choice for organic food consumers are health and food safety concerns, while conventional consumers consider price and convenience, [27]. In [8], the authors also found that Albanian consumers perceive organic food as healthier and safer.

3 Paper Objectives

The main objective of this paper is to determine the factors that influence the willingness of consumers to pay an additional price for purchasing organic products in the Gjirokastra region. This objective is related to socio-demographic factors influencing purchases of organic products in the region. Identifying and testing the socio-demographic factors on WTP for organic products will be a deeper perception compared to other Albanian authors. To successfully meet the main objective, we tried to provide an answer to the following research questions:

- Do socio-demographic factors influence the willingness of consumers to pay an additional price for the purchase of organic products?
- What characteristics of organic products affect the willingness of consumers to pay an additional price for their purchase?

Based on the above questions, we propose the following hypothesis:

Ho: Socio-demographic variables do not have a significant influence on the willingness of consumers to pay an additional price in purchasing organic fruits and vegetables;

Ha: Socio-demographic variables have a significant influence on the willingness of consumers to pay an additional price in purchasing organic fruits and vegetables.

4 Methodology

In this paper, we will analyze consumer willingness to pay an additional price for organic products in the Gjirokastra region. In this analysis, we have used descriptive research, among the socio-demographic variables, as well as the willingness of consumers to pay an additional price for organic fruits and vegetables. With the purpose of collecting data, a survey was conducted as a primary research method. Secondary data from Albanian statistical bulletins have also been used. The basic instrument is the structured questionnaire as a tool for obtaining the

necessary information through questions addressed to research target groups, [28]. The questionnaire works best when the questions are standardized and guarantee that they will be interpreted in the same way by all respondents, [29].

Before launching the questionnaire, 15 pilot questionnaires were tested. The reason behind this was to identify possible mistakes as well as to evaluate the clarity of questions and concepts that were used and to avoid possible difficulties in choice-making. All remarks, suggestions, and opinions were reflected in the final version of the questionnaire, which was divided into three sections. The first section provides general information on the socio-demographic characteristics of the consumers such as gender, age, civil status, level of education, and monthly family income. The second section provides more specific information about the purchase characteristics of fruits and vegetables in the family such as their expenses, the number of meals of fruits and vegetables they consume per week, and the characteristics that they value for their selection. The third section provides information on the willingness of consumers to pay an additional price for organic fruits and vegetables. Via this questionnaire, quantitative and qualitative data were collected.

A probability sampling technique was used. In the first phase, the three largest supermarkets in the center of the city, in which organic products are also sold in the fruit and vegetable section, were selected and in the second phase, a random selection of customers was made. For a more representative sample, the survey was conducted on different days and hours during one week. The study population is the consumers of organic fruits and vegetables in Gjirokastra. The sample size was determined by the number of customers who regularly frequent these sale points. From interviews with the three supermarket managers, the average number of customers during one week is approximately 3500 (1500, 1200, and 800 customers respectively). Thus, the size of the population was 3500 customers. According to an estimate by Raosoft (sample size calculator) with a margin of error of 4.97%, 350 surveys were conducted (150 questionnaires (43%) in the first supermarket, 119 (34%) in the second, and 80 questionnaires (23%) in the third supermarket). After processing the data, 328 questionnaires were valid, 22 questionnaires were invalid and the margin of error changed to 5.15%.

SPSS software, version 21, was used for data processing. The data were analyzed with descriptive statistics, and inferential statistics combined with

comparative interquartile analysis, for which comparative box plots were used. Regression analysis was also conducted to establish the level to which the dependent variable is predicated by the different independent variables. Regression is the explanation and prediction of the behavior or levels of a variable or phenomenon, when one or several other variables, which are thought or proven to be related or influence it, change to a certain extent and direction, [28]. The Multivariate Linear Regression model (MLR) was used to measure the influence of independent variables on the WTP and additional price for the purchase of organic fruits and vegetables, which is the dependent variable of the study measured by the level of the increase in the price percentage. The independent variables are the social-demographic characteristics of the consumers, specifically: age, education level, and monthly income level assessed in groups arranged in ordinal classes. Also, monthly expenses for fruits and vegetables, the number of meals for fruits and vegetables being consumed per week, expressed in real values were taken into consideration.

The purpose of MLR is to model the linear relationship between the explanatory (independent) variables and the response (dependent) variables. The model that was used in regression analysis is presented below:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \beta_6X_6 + \varepsilon \quad (1)$$

Where:

Y= WTP an additional price for organic fruits and vegetables

β_0 = Constant,

X_1 = Age,

X_2 = Education,

X_3 =Monthly income,

X_4 = Monthly expenses,

X_5 = Monthly expenses for fruit and vegetables,

X_6 = Number of meals for fruits and vegetables being consumed mainly during the week

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6$ = Represent the regression coefficients of the six independent variables which helped to determine the level of influence of the independent variables on the dependent variable.

The Fisher test was used to measure the functionality and stability of the model and the least squares model was used to measure the evaluation of the parameters.

5 Data Analysis

5.1 Comparative Analysis

Inferential statistics is about generalizing or drawing reliable conclusions about the population based on case data findings, [30].

65% of the consumers involved in the study were women, and 35 % were men. According to Figure 1, 1,75% of men are willing to pay more than 20%, and 50% of them are from 40% to 50%. While 50% of women are willing to pay less than 30% and only 25% of them an increase from 40% to 50%. This can be explained by the fact that women with a specific budget try to buy as much as possible looking for a lower price. Meanwhile, men buy only the products on the list and do not seek to find the cheapest products.

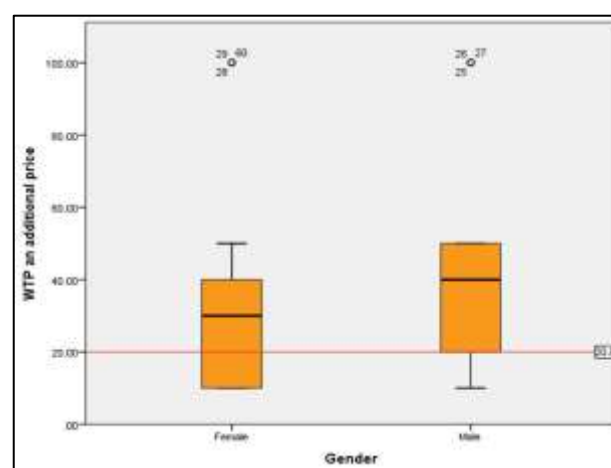


Fig. 1: Relation between Gender and WTP an additional price for organic fruits and vegetables

Source: Authors from SPSS statistical software v21(2023)

The level of education is divided into 6 categories. From the surveys it was found the following: 1.67% have an 8-year education, 56.60% high school education, 23.30% university education, 16.70% have postgraduate education, and 1.67% answered otherwise. How does the level of education affect WTP? According to Figure 2, at the postgraduate level, 100% of the respondents are willing to pay a price increase from 30% to 100%. Meanwhile, the high school education category is also willing to pay an increase from 30% to 100%, but only 50% of them. The rest are willing to pay up to 30%. Of those in the university education category, only 25% are willing to pay from 30% to 50% price increase, while 75% are willing to pay an increase of up to 30%. The other two categories have no statistical significance. What we notice is that consumers with high school education levels are more willing to pay a higher price compared to

those with a university education level. To explain this phenomenon, we must analyze the relationship that exists between the level of education and monthly income.

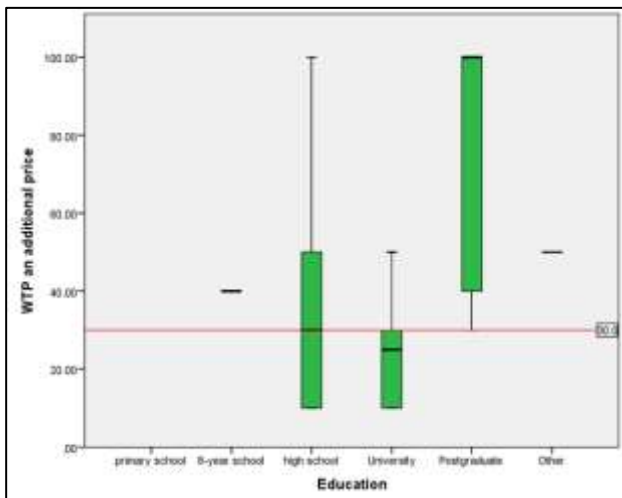


Fig. 2: Relation between Education and WTP an additional price for organic fruits and vegetables
 Source: Authors from SPSS statistical software v21(2023)

The level of monthly income is divided into 6 categories (surveys were completed in ALL, but for study purposes, we have made the conversion in Euro according to the exchange rate of 1 Euro = 116.14 ALL¹). The surveys showed that: 0% had an income of fewer than 86 Euros, 8.33% between the range (of 86 – 256 Euros), 18.33% between the range (of 256 – 516 Euros), 31.66% between the range (516 – 775 Euros), 16.66 % between the range (775 – 1033 Euros) and 25% > 1033 Euros. According to Figure 3 which shows the relationship between the monthly income and education, we notice that the postgraduate category has a high income of over 775 Euros and due to the level of education, it also has knowledge about organic products, thus the consumers on this category are willing to pay an increase for organic products from 30% to 100%. While, the high school education category, only 25% of them have an income of up to 775 Euro, and 75% of them have an income over 775 Euros. This category is represented in Albania by individuals who own businesses, who regardless of their educational level, have financial opportunities and are willing to pay a price increase of up to 100%. Meanwhile, 75% of the university category have an income of up to 775 Euro and only 25% of them are between the range of 775 – 1033 Euro. This category has an educational level but

does not have a high level of income that can respond to the price increase. The other categories do not show statistical significance.

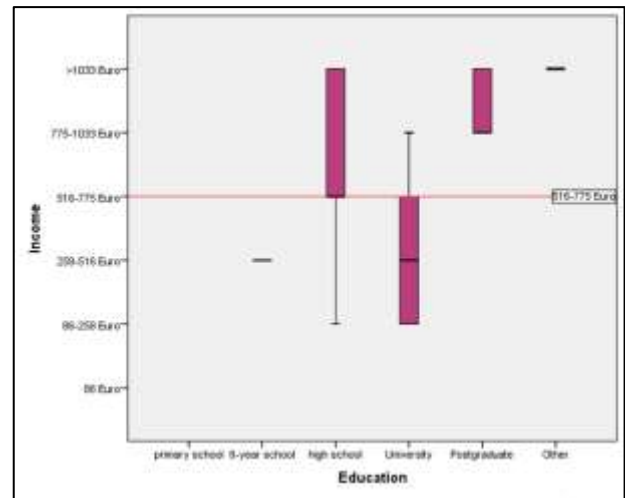


Fig. 3: Relation between Education and Monthly Income
 Source: Authors from SPSS statistical software v21(2023)

The age of the respondents is divided into 6 categories: 6.67% are in the age group of 18 – 24 years, 11.60% to the age group of 25 – 34 years, 30% are in the age group of 35 – 44 years, 26.60% in the age group of 45-54 years, 11.60% in the age group 55-64 years and 13.30% in the age group 65+ years. According to Figure 4, the tendency for WTP additional price starts with the 35-44 age group, where 50% of them are willing to pay from approximately 35% to 100% price increase. In the 45-54 age group, 75% of them are willing to pay from 30% to 100%, while 25% of them are willing to pay up to 30%. In the age group 55-64 years, 50% of them are willing to pay from 30% to 100%. These age groups represent families with a consolidated civil status with the presence of children in the family and this is the reason they are more willing to pay an additional price for organic fruits and vegetables. Meanwhile, in the 65+ age group, only 25% are willing to pay from 35% to 50% increase. This happens for economic reasons as this age group has less monthly income due to the retirement period. For the age 18-24 years, 25% are willing to pay from 35%-40%. This age is still part of the big family and buying organic products is part of their family culture. Meanwhile, the 25 – 34 age group is not interested in paying an additional price for organic fruits and vegetables, 75% are willing to pay up to 30% as this percentage can be a real increase in the price of the products as a result of the influence of other factors.

¹Albanian Lek, Bank of Albania, 6 February 2023

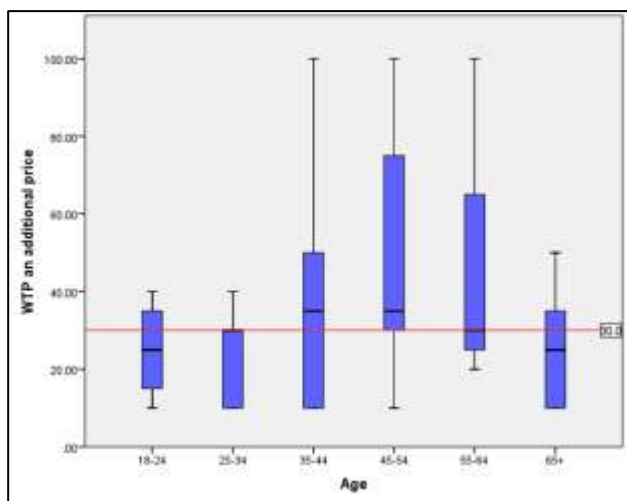


Fig. 4: Relation between Age and WTP an additional price for organic fruits and vegetables

Source: Authors from SPSS statistical software v21(2023)

The civil status of the respondents is divided into 6 categories: 11.70% single, 63.30% married, 7% divorced, 5.30% widow, 9.25% cohabiting, and 3.40% other. According to Figure 5, 75% of married respondents pay from 30% to 50%. The category of married civil status has the greatest tendency to pay the additional price, 75% of them are willing to pay a 30% to 50% price increase. In opposition to the cohabitation category, only 25% of them are willing to pay a 30% to 50% price increase. In the “divorced” and “widow” categories, 50% of them are willing to pay a 30% to 50% price increase. The “single” category shows little interest, where 50% of them are willing to pay 20% to 40% additional price. Meanwhile, the other category did not want to declare its civil status, but it is a category that is willing to pay up to a 30% price increase.

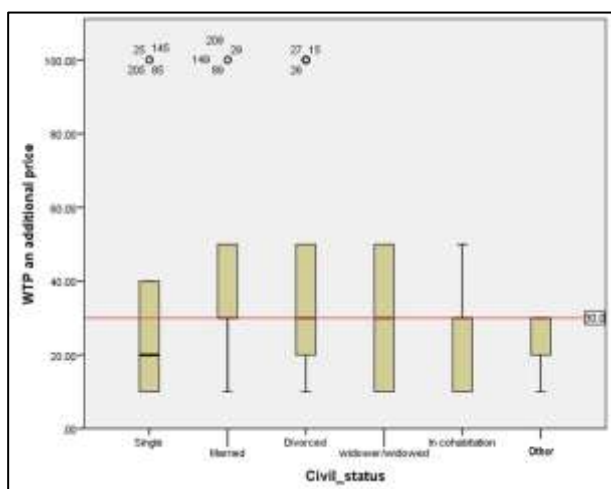


Fig. 5: Relation between Civil Status and WTP an additional price for organic fruits and vegetables

Source: Authors from SPSS statistical software v21(2023)

The question, which is the most important characteristic that consumers value in the selection of fruits and vegetables, was answered as follows: 21.60% freshness, 11.60% appearance, 15% price, 25% origin, 20% certification and 6.67% trust to the seller. For the variable characteristic of the purchase of fruits and vegetables, the most important role to the customer is trust and certification. According to Figure 6, if the product is certified, 100% of consumers are willing to pay an additional price from 30% to 100%. The same percentage is when they trust the seller. We can say that trust in the seller is the informal certification that the consumer has for the product. If a consumer trusts the seller, he tends to pay up to a 100% increase. The origin does not show significant comparative importance. Regarding the price as a characteristic, it is obvious that it does not show a higher willingness than a non-organic product can have, up to 30%, thus a normal price increase. The product presentation does not show any interest, as long as it is organic, as it can be bought in the markets or in farms where the consumers trust since they know the producers. While related to freshness, 50% of consumers are ready to pay up to a 50% increase, thus they prefer that organic food products be sold in their production period.

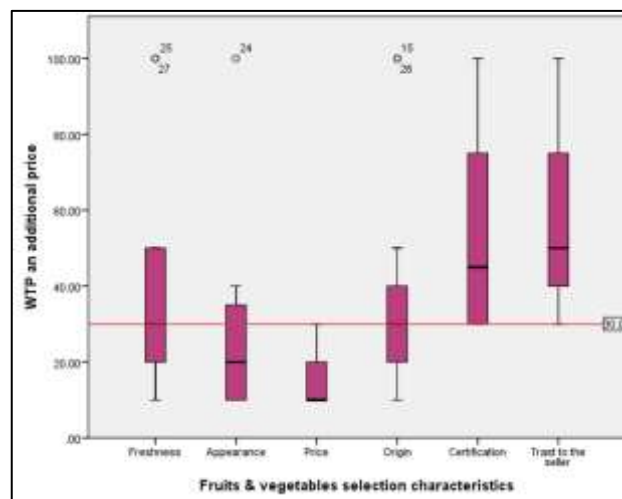


Fig. 6: Relation between Fruits & Vegetable selection characteristic and WTP an additional price for organic fruits and vegetables

Source: Authors from SPSS statistical software v21(2023)

5.2 Multivariate Linear Regression

Data statistical processing produced by the samples gave the following outputs. From Table 1, the value of the model created with the method of least squares has an approximation of 63.1% (R Square=0,631). The adjusted square of the multiple R has a value of 0.589, indicating that the 58.9% of

the variance on WTP an additional price for organic fruits and vegetables is jointly explained by all the independent variables: age, education, monthly income, monthly expenses for fruits and vegetables, and a number of meals/week.

Table 1. Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.794 ^a	.631	.589	18.61258

a. Predictors: (Constant), Number of meals per week, Monthly Income, Age, Education, Monthly expenses for Fruits and Vegetables, Monthly expenses

Source: Authors from SPSS statistical software v21(2023)

The regression is supported by the ANOVA test, for a high value of F=15,074 and Sig = 0.000 < 0.05 (Table 2), so the model is statistically significant.

Table 2. ANOVA

ANOVA ^a					
Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	31.332.633	6	5.222.106	15.074	.000 ^b
Residual	113.695.104	322	346.428		
Total	145.027.737	328			

a. Dependent Variable: WTP an additional price

b. Predictors: (Constant), Number of meals per week, Income, Age, Education, Monthly expenses for Fruits and Vegetables, Monthly expenses

Source: Authors from SPSS statistical software v21(2023)

Table 3. Coefficients of Variables

Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	-71.246	15.261		-4.668	.000	-101.857	-40.636
	Age	-3.940	1.934	-.188	-2.038	.047	-7.819	-.062
	Education	18.125	3.180	.532	5.728	.000	11.837	24.594
	Income	16.651	2.854	.724	5.802	.000	10.836	22.285
	Monthly expenses	.000	.000	-.601	-4.174	.000	-.001	.000
	Monthly expenses for Fruits and Vegetables	.000	.000	-.218	-2.029	.047	-.001	.000
	Number of meals per week	5.309	1.811	.249	2.932	.005	1.677	8.941

a. Dependent Variable: WTP an additional price

Source: Authors from SPSS statistical software v21(2023)

Table 3 shows the coefficients of variables that are included in the multivariate regression. As noted all independent variables which are included in this statistical model: age, education, monthly income, monthly expenses, monthly expenses for fruits and vegetables, and number of meals per week, are statistically significant because their levels of significance have low values. These variables are referred to as the 95% confidence level. Age (Sig = 0.047 < 0.05 or 5%), education (Sig = 0.000 < 0.05 or 5%), monthly income (Sig = 0.000 < 0.05 or 5%), monthly expenses (Sig = 0.000 < 0.05 or 5%), monthly expenses for fruits and vegetables (Sig = 0.047 < 0.05 or 5%), number of meals per week (Sig = 0.005 or 5%). We notice that the impact of age on WTP an additional price for organic fruits and vegetables is negative ($\beta_1 = -3.940$) with a level of significance (0.047 < 0.05), which shows that with an increase in the level of age by one unit the WTP an additional price decreases by approximately 3.94 units when all the other factors are constant. Education and income are two factors that exert the greatest influence on WTP an additional price for organic fruits and vegetables. Education has a positive impact on the WTP an additional price for organic fruits and vegetables ($\beta_2 = 18.125$) with a level of significance (0.000 < 0.05), which shows that with an increase in the level of education by one unit, the WTP additional price increases by approximately 18 units when all the other factors are constant. Thus, with the increase in the level of education, the amount that respondent is willing to pay is also increasing, [31]. The monthly income has a positive impact on WTP an additional price for organic fruits and vegetables ($\beta_3 = 16.561$) with a level of significance (0.000 < 0.05), which shows that with an increase in the level of monthly income by one unit, the WTP additional price increases by approximately 16,5 units when all other factors are constant. With an increase in income, the ability and willingness to spend more, also increase, [32]. The number of meals affects positively the WTP an additional price for organic fruits and vegetables ($\beta_6 = 5.309$) with a level of significance 0.05, which shows that with the increase in the number of consumed meals, the WTP an additional price increases by approximately 5,3 units when all other factors are constant. The table shows that the variables monthly expenses and monthly expenses for fruits and vegetables, are statistically significant, but do not influence the WTP an additional price.

These coefficients are necessary to create equation (2) of multivariate linear regression:

$$\text{“WTP”} = (-71.246) - (3.940)x(\text{age}) + (18.215)x(\text{education}) + (16.561)x(\text{monthly income}) + (5.309)x(\text{number of meals/week}) + e \quad (2)$$

For testing the H_a hypothesis, whether it is acceptable or not, at least one of the coefficients next to the independent variables included in the regression equation must be different from zero ($\neq 0$). Then, the hypothesis is acceptable. Referring to the regression equation (2), four of its coefficients are different from zero, which shows that statistically, this forecasting model is significant within the 95% confidence interval. Consequently, while some of the independent factors have coefficients different from zero, such as age, education, monthly income, and the number of meals consumed during the week, the basic hypothesis is rejected, therefore H_a is acceptable, that the socio-demographic variables influence the WTP an additional price for organic fruits and vegetables (Table 4).

Table 4. Summary of statistical parameters of H_a

Coefficients	Value	Sig	Statistical importance	H_a testing
Age	-3.940	0.047	Sig<0.05	Accepted
Education	18.215	0.000	Sig<0.05	Accepted
Monthly income	16.561	0.000	Sig<0.05	Accepted
Number of meals/week	5.309	0,005	Sig<0.05	Accepted

Source: Authors from SPSS statistical software v21(2023)

6 Conclusions

Based on the findings of this paper, it turned out that men were more willing to pay an additional price for organic products. Regarding the level of education, the highest willingness to pay for organic fruits and vegetables had the consumers who had post-graduate studies, who have a high income, and who also had knowledge about these products. In this regard, our findings are in congruence with the findings of, [32]. Also, people with high school education. These consumers, regardless of their level of education, have financial opportunities. This category “nouveau riche”, according to [33], the development of this class is a sign of progress and the wider this class is, the faster a very large and prosperous middle class will be created, whose expenses can stimulate the economy. The age group 35-64 years has the highest willingness to pay, consolidated families with children, and therefore they are more responsible and careful towards fruits and vegetables. This is reinforced by the

comparative analysis and the relationship with civil status, where the “married” category is more willing to pay an additional price for fruits and vegetables.

The most interesting finding is the selection. The results show that certification and trust in the seller are the two main characteristics of consumer selection. Thus, they are willing to pay an increase of up to 100%, if they know the seller.

At the end of the paper, it is evident that socio-economical factors have a significant impact on the willingness to pay an additional price for fruits and vegetables. Socio-demographic factors: age, education, monthly income, and the number of meals they consume during the week for fruits and vegetables are important factors in the WTP an additional price.

This study has some limitations. The first limitation is that it measures perceptions of different consumers of organic fruits and vegetables on their willingness to pay. Further research may be conducted to measure exactly how much money different consumers are ready to pay for a certain category of organic products and why not for specific products. This would certainly require the application of appropriate research techniques, such as auctions for example.

Another limitation has to do with the so-called “sample bias”. Regardless of the fact that this study adopted a random sampling method, and the size of the sample justifies the population, the participants were contacted only in a limited number of food retail units in Gjirokastra city. This approach may bias, to a certain extent, the results of the study as long as the purchases from these selected sale points do not represent the total food purchases in the city. Researchers in the future should consider this fact and further expand the study area to create a more complete overview of the situation not only in the city of Gjirokastra but also in other regions of the country.

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-Irena Boboli carried out the methodology, collection of primary data, and the organization of the paper.

-Ledia Thoma carried out the literature review and the collection of secondary data.

-Romeo Mano carried out the processing of the questionnaire, database, and statistical processing.

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