

EFFECTIVENESS OF BRANDING WITH LOCAL INDICATORS IN INCREASING OLIVE OIL CONSUMPTION IN VLORA, ALBANIA

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Abstract

In the area of Vlora, there is no in-depth study on the role of brand with local indicators in olive oil. The purpose of this study is to prove the influence of the brand and local indicators on the development of the olive oil market in Vlora. In this study, the role of the brand with local indicators is analyzed, as is its impact on the increase in the consumption of olive oil and the increase in the income of the agro-processing industries in the study area. Focusing on the market in this area, it is examined how branding with local indicators can influence consumer preferences and increase product consumption. Through the analysis of factors such as price, design with local indicators, quality, and promotion, it is intended to discover the most effective strategy to increase sales of olive oil in the study area. The research was conducted with the participation of over 200 consumers. To analyze the questionnaire, nominal-type econometric models were used, a suitable model to evaluate the impact of products branded with local indicators on the purchasing decisions of consumers. The program used for quantitative data processing is STATA. According to the research findings, it turns out that the brand's local indicators play an important role in the purchase decision. Also, the results of the study provide valuable guidelines for agro-processing industries and decision-makers who should pay special attention to branding with local indicators as an effective strategy to maximize the market potential for olive oil in the study area.

Key words: consumers, agro-processing industry, Econometric model, STATA, brand

INTRODUCTION

This study focuses on the analysis of the impact of the brand on increasing the consumption of olive oil in the market for Vlora. By exploring indicators such as price, design with local indicators, quality, promotion, and preferences of local consumers, it is intended to identify the most effective strategy to promote olive oil sales in the study area. The purpose of this study is to investigate the role of the brand with local indicators in the attitudes and buying behavior of consumers and, consequently, in increasing the income of the agro-processing industries of olive oil in the area of Vlora. Factors such as design with local indicators, quality, promotion, and place of origin play an important role in product branding as they differentiate and identify it as a high-quality brand in the eyes of consumers. To achieve this goal, a study was conducted, in which a

questionnaire was used with 200 consumers in the study area. Data analysis was performed with a nominal ordinal-type econometric model. The results of the research show that the brand with local indicators has a strong impact on increasing the consumption of olive oil and increasing the income of agro-processing industries. Also, the analysis brings an important benefit to the agricultural agro-processing sector, which should focus on the production brand with local characteristics to increase income and position itself in the market.

Literature review

This study presents the main findings of scientific research regarding the impact of local branding. Researchers have concentrated their studies on the role that brands with local indicators play in the product purchase process [26], [5]. From the conducted studies, it is evident that the country of origin is an element that is not competed with by products coming from foreign countries [27]. In recent

years, researchers in the field have paid special attention to local indicators because they categorize products as high-quality products and favor sales growth [2], [1]. The place of production of a product is positively evaluated by consumers [6]. According to Roth and Romeo [23], although the place of production of a product is an intangible element, it plays an important role in the purchase decision. Consumers are predisposed to pay a higher price for branded products that come from countries with positive reviews [18]. It is further argued that the origin of a product is evaluated by the consumer as a key indicator of quality, which guides the process of purchasing these products [11]. Identification with the country of origin affects the characteristics of products in several ways, such as performance, quality, reliability, and profitability [10]. Also, the origin of the product influences the positioning and identification of the product in the market [12]. Earlier studies show that the effectiveness of the country of origin of the product comes as a result of the effectiveness of international marketing and the development of the product brand [19], [4]. The origin of the product is also analyzed in international markets as an important element compared to foreign products and plays a competitive role in these markets [7], [15]. The results of studies confirm that local indicators increase the possibility of purchasing products and influence the formation of a positive image [18]. Also, the place of origin increases the credibility and brand potential of the product during the evaluation process [14]. For example, when the consumer has the opportunity to buy a product like Italian mozzarella, he is more predisposed to buy it because of the positive perception of the brand, which comes from the positive image of Italy as a developed country and specialized in the category of different production processes of agro-processing products [12]. The image of the country of origin plays an important role in determining the price of products. When the image of the country from which the products come is negative, high or low prices have no effect on purchase demand [22]. For example,

Japan and the USA have positive and negative images in the production of different cars based on the quality of production and utility of use. A high monetary benefit for a car made in the United States will not increase the positive evaluation of its quality, while a low price for a car made in Japan will increase the probability of worsening the positive image of the country of origin, negatively affecting the quality. The agricultural products processing market cannot neglect the opportunities that come from the "country of origin effect" [2]. The country of origin is evaluated by the consumer as the best indicator of the quality [28] and safety [20] of agro-food products. Country of origin plays an important role in consumer behavior, such as intention to pay, select, and purchase [3]. The study of the place of production of the product is focused on a group of other elements, such as product features, history of origin, and brand [30], [3]. The role of the country of production of the product is evidenced in different categories of agricultural products. From Xie's study, it was evident that the place of production is a factor that influences the buying process [31]. Hussien and Fraser [17] demonstrated that when evaluating agri-food products in the United Kingdom, the origin of fresh meat is an important factor in driving consumer demand [8]. Claret [8] underlined that the place of production of the products reduces the price effect and increases the possibility of purchasing the products; elsewhere, these were also confirmed by the studies of Schjøll [24]. Different studies have shown that the country of origin and the image of the country of origin do not always match, and there are differences between different products [33]. The findings of several studies show that the image of the country of origin influences purchasing behavior and varies in effects according to the type of food product [33], [25]. From the literature research on agricultural and livestock products and by-products, limitations are evident, with very small exceptions for milk and yogurt in the European Union and Great Britain. Through market analysis in Thailand, it was confirmed that characteristics such as brand origin,

name, logo, and slogan have a strong impact on price perception and stimulate consumer demand to buy [29]. Studies have confirmed that country of origin has a significant impact on consumers' decision-making to pay [24], [16]. Also, in recent years, it has been proven that the demand for imported dairy products in China depends on the country of origin of the product, based on the positive image that consumers have for American products [32].

MATERIALS AND METHODS

Study sample and data collection

Based on the poor economic performance of the agro-processing sector of olive oil in the city of Vlora in Albania, it was considered reasonable to examine the causes of this phenomenon by analyzing the interests of consumers, opinions, and their attitudes towards local branded products. The sample of the study reached over 200 consumers, who were chosen depending on their availability and free will to participate in the study [13]. The consumers who participated in the study were from the Vlora area. The questionnaire was developed electronically through the Google Forms platform. Data collection from the study sample began in November 2023 and ended in March 2024, when over 200 completed questionnaires were reached.

Research instruments

The questionnaire used to collect data from consumers is scaled from 1 (do not agree at all) to 5 (completely agree), the results of which prove the role of the brand with local indicators in the purchasing behavior of consumers for olive oil and increasing the income of agro-processing industries in the area of Vlora, Albania. It is organized into three sections:

1. The first section contains seven questions to collect data on socio-demographic features such as gender, age, place of residence, education, profession, income, and number of family members.
2. The second section contains two questions that include the type of preferred olive oil purchasing entity and whether they purchased local or foreign-branded olive oil.

3. The third section contains 25 questions and includes preferences for the selection of locally branded products in relation to their attributes such as quality, safety, information on the country of origin, promotion, branding with local indicators, brand name, quality of service in the unit of sale, the perceptions on the place of origin, food safety, and the precept on the price of olive oil.

Sampling Procedure

To collect data from consumers, a questionnaire with closed questions was used in electronic format for different categories of consumers, such as students, employees in the state, employees in the private sector, managers, administrators, and different categories of professions, in order to ensure a broad and diversified representation of their opinions and perceptions regarding the role of the brand with local indicators in olive oil. They were informed in advance during the collection of e-mail addresses about how to complete it. Participation in the study was voluntary, and ethical considerations such as confidentiality and anonymity were emphasized during the presentation.

Data Analysis

The analysis and interpretation of the collected data were carried out using a quantitative approach [9], that was developed in several stages in accordance with the need for additional information related to the purpose of the study. In the initial phase of data analysis, a report was first prepared based on the responses of the interviewees. In the second phase, the reports from the first phase were analyzed, identifying those that required additional analysis in accordance with the research objective. The methodology used for this case study is nominal-type econometric models, since the dependent variables are nominal. Ordinal models were used among the nominal models because the categories or levels of the dependent variable are ordered from the lowest to the highest [21]. The program used for quantitative data processing is STATA.

Research hypothesis

Based on the purpose of this study and the theoretical framework discussed above, the research hypothesis is presented as follows:

H1. Consumers have a higher demand for domestic products branded with local indicators as a result of the place of production, product quality, selling price, promotion or advertising, and design with local indicators.

RESULTS AND DISCUSSIONS

Socio-demographic characteristics of the respondents

In the study sample according to Table 1, it turns out that 57.6% were women and 42.4% were men, while 29.8% were 18–30 years old, 32.2% were 30–40 years old, 16.6% were 40–50 years old, 12.2% were between 50 and 60 years old, and 9.3% were over 60 years old. In terms of education, 46.3% of the interviewees had completed higher education, 40% had completed master of science studies, 7.8% had completed doctoral studies, and 5.9% had secondary education.

Table 1. Socio-demographic data of the sample

Gender	Man	87	42.40%
	Woman	118	57.60%
Age	18-30	61	29.80%
	30-40	66	32.20%
	40-50	34	16.60%
	50-60	25	12.20%
	Over 60	19	9.30%
Education	Secondary education	12	5.90%
	High education	95	46.30%
	Master of Science	82	40%
	Ph.D.	16	7.80%
Residence	Urban	179	87.30%
	Rural	26	12.70%
Occupation	Manager	22	10.70%
	Specialist	41	20%
	Administrator	16	7.80%
	Businessmen	12	5.90%
	Student	22	10.70%
	Unspecified professions	92	44.90%
Number of family members	Alone	10	4.90%
	2 to 3 members	67	32.70%
	4 to 6 members	118	57.60%
	Over 6 members	10	4.90%
	300 Euro	10	4.90%
Monthly income	350– 400 Euro	13	6.30%
	450– 500 Euro	22	10.70%
	550 – 600 Euro	44	21.50%
	Over 700 Euro	116	56.60%

Source: Author's results based on the respondents' answers.

Regarding the place of residence, it was found that 87.3% of the interviewees had an urban residence and 12.7% had a rural residence. Regarding their professions, it was found that 44.9% had unspecified professions, 20% had a specialist profession, 10.7% had a managerial profession, 10.7% were students, 5.9% were businessmen, and 7.8% were administrators.

According to the number of members in the family, 57.6% were from 4 to 6 members, 32.7% were from 2 to 3 members, 4.9% were over 6 members, and 4.9% lived alone. Finally, regarding the level of monthly income, 56.6% of the interviewees earned over 700 euro, 21.5% earned between 550 and 600 euro, 10.7% earned between 450 and 500 euro, 6.3% earned between 350 and 400 euro, and 4.9% earned 300 euro per month.

Consumer opinions, evaluations, and perceptions about olive oil

The following data reflect the opinions or perceptions of the consumer about the olive oil product in order to evaluate his buying behavior or his attitudes regarding the branding of the product with local indicators. In the following, various combined groups are constructed.

The main variables to build these groups are: country, education, profession, and income.

From this four-dimensional position, the consumer's behavior or evaluations for the brand of olive oil with local indicators or place of origin are analyzed.

Table 2. How important is the place of production of the product in choosing the brand of the agri-food product? [Olive oil]. According to the country.

	Residence		In total
	Rural	Urban	
Not important at all	0	2	2
Important	3	48	51
I do not know	3	2	5
Little important	0	17	17
Very important	20	109	129
In total	26	178	204

Source: Author's results.

In Table 2, it is shown the importance of the place of production of the product in the

choice of the brand of the olive oil product according to the area.

The data show that 88% of the consumers in the rural area and 88% of them with urban residence affirm that the place of production of the product in choosing the brand is important and very important.

From Table 3, the data reflect the importance of the selling price of the product in choosing the preferred brand of olive oil according to the area.

54% of consumers with rural residences say that it is important and very important. This is followed by 83% of urban consumers who claim that the selling price of olive oil is very important in choosing their preferred brand.

Table 3. How important is the selling price of the product in choosing the preferred brand? [Olive oil] by area

How important is the selling price of the product in choosing a preferred brand? [Olive oil]	Residence		
	Rural	Urban	In total
Not important at all	3	20	23
Important	3	55	58
I do not know		4	4
Little important	9	60	69
Very important	11	39	50
In total	26	178	204

Source: Author's results.

The data from Table 4 regard the importance of the selling price of the product in choosing the preferred brand of olive oil according to education, 53% of consumers with higher education state that it is important and very important.

Table 4. How important is the selling price of the product in choosing the preferred brand? [Olive oil] according to education

	Education				In total
	HE	SE	Ph.D.	MS	
Not important at all	8		2	13	23
Important	28	4	4	22	58
I do not know	2			2	4
Little important	35	4	1	29	69
Very important	22	3	9	16	50
In total	95	11	16	82	204

Source: Author's results.

Whereas, 51% of consumers with a Master of Science qualification claim that the selling price of olive oil is of little or no importance in choosing their favorite brand.

Table 5 presents the importance of the selling price of the product in the choice of the preferred brand of olive oil according to the profession. From the data, it appears that 55% of consumers with a specialist profession say that it is important and very important.

Table 5. How important is the selling price of the product in choosing the preferred brand? [Olive oil] according to profession

	Profession						In total
	Administrator	Businessman	Manager	Specialist	Student	Others	
Not important at all	4	1	4	6	1	7	23
Important	1	5	5	12	8	27	58
I do not know		1			1	2	4
Little important	8	2	8	12	5	34	69
Very important	3	3	5	10	7	22	50
In total	16	12	22	40	22	92	204

Source: Author's results.

It is followed by 53% of consumers with indefinite occupations, who affirm that the selling price of olive oil in choosing the preferred brand is important and very important.

Table 6. How important is the selling price of the product in choosing the preferred brand? [Olive oil] according to incomes.

	Incomes					In total
	300 €	350-400€	450-500€	550-600€	Over 700€	
Not important at all	2	1		3	17	23
Important	4	3	11	14	26	58
I do not know		1		1	2	4
Little important	2	5	6	12	44	69
Very important	2	3	5	14	26	50
In total	10	13	22	44	115	204

Source: Author's results.

In Table 6, it is presented the importance of the selling price of the product in choosing the

preferred brand of olive oil according to income. The results showed that 64% of consumers with incomes between 550 € and 600 € state that it is important and very important. Whereas, 53% of consumers with incomes over 700 € affirm that the sale price of olive oil is little or not at all important in choosing their favorite brand.

From the data below, it is evident that about 66% of the consumers think that the promotion of agro-food products has an extremely large influence on their choice of brand.

Table 7. Does the promotion/advertisement of agri-food products influence brand choice? [Olive oil]

	In total
Nothing	21
Extremely very much	73
I do not know	1
Slightly	48
More	61
In total	204

Source: Author's results.

From Table 8, it is easy to identify the importance of design and packaging with local indicators in the choice of olive oil product brand according to education.

Table 8. How important are design and packaging with local indicators in choosing a product brand? [Olive oil] according to education.

	Education				In total
	HE	SE	Ph.D.	MS	
Not important at all	8	4		7	19
Important	33		7	18	58
I do not know	3			1	4
Little important	16	4	1	29	50
Very important	35	3	8	27	73
In total	95	11	16	82	204

Source: Author's results.

72% of the interviewees with higher education state that it is important and very important. It is followed by 55% of them with the Master

of Science qualification, who state that it is important and very important.

Table 9 reflects the importance of design and packaging with local indicators in the choice of the olive oil product brand according to the area.

73% of the interviewees with rural residence state that it is important and very important. It is followed by 63% of them with urban residences, who state that it is important and very important.

Table 9. How important are design and packaging with local indicators in choosing a product brand? [Olive oil] according to area.

How important are design and packaging with local indicators in choosing a product brand? [Olive oil]	Residence		In total
	Rural	Urban	
Not important at all	3	16	19
Important	6	52	58
I do not know	1	3	4
Little important	3	47	50
Very important	13	60	73
In total	26	178	204

Source: Author's results.

From Table 10, we may see the importance of design and packaging with local indicators in the choice of olive oil product brand according to the profession.

Table 10. How important are design and packaging with local indicators in choosing a product brand? [Olive oil] according to profession.

How important are design and packaging with local indicators in choosing a product brand? [Olive oil]	Profession						In total
	Admi nist rat or	Bu sin ess ma n	Ma nag er	Sp eci alis t	Stu den t	Ot her s	
Not important at all		2	2	3	5	7	19
Important	3	4	3	11	11	26	58
I do not know						4	4
Little important	1	1	4	7	5	32	50
Very important	12	5	13	19	1	23	73
In total	16	12	22	40	22	92	204

Source: Author's results.

The data show that the majority, about 75% of the interviewees with the specialist profession, said that it is important and very important.

It is followed by 53% of them with unspecified professions who state that it is important and very important.

Table 11 presents the importance of design and packaging with local indicators in the choice of olive oil product brand according to income.

From the data, it appears that the majority, about 55% of the interviewees with incomes ranging from 550 euro to 600 euro, state that it is important and very important.

It is followed by 73% of those with incomes over 700 euro who state that it is important and very important.

Table 11. How important are design and packaging with local indicators in choosing a product brand? [Olive oil] according to income.

How important are design and packaging with local indicators in choosing a product brand? [Olive oil]	Incomes					
	300 €	350-400 €	450-500 €	550-600 €	Over 700 €	In total
Not important at all	2	2	3	6	6	19
Important	5	3	6	13	31	58
I do not know		1		2	1	4
Little important	3	5	6	12	24	50
Very important		2	7	11	53	73
In total	10	13	22	44	115	204

Source: Author's results.

Table 12 reflects the low level of food safety risks for the purchase and consumption of products marked with local indicators, it appears that the majority, about 39% of consumers with incomes from 550 to 600 euro and 49% of consumers with incomes over 700 euro, assesses the level of risk to food security as extremely very and very low.

Table 12. Does the purchase and consumption of products marked with local indicators have a low level of food safety risks? [Olive oil] according to income.

	Incomes					In total
	300 €	350-400 €	450-500 €	550-600 €	Over 700 €	
Nothing	1		3	5	13	22
Extremely very much	2	2	7	8	36	55
I do not know	1	7	3	10	20	41
Slightly	5	2	3	12	26	48
More	1	2	6	9	20	38
In total	10	13	22	44	115	204

Source: Author's results.

Table 13 presents the data related to the level of risks to food safety. It appears that 45% of urban consumers estimate the level of risk as extremely very low and very low. It continues with 50% of consumers with rural residences who rate the level of risk as extremely very low and very low.

Table 13. Does the purchase and consumption of products marked with local indicators have a low level of food safety risks? [Olive oil] according to area.

Does the purchase and consumption of products marked with local indicators have a low level of food safety risks? [Olive oil]	Residence		
	Rural	Urban	In total
Nothing	7	15	22
Extremely very much	9	46	55
I do not know	4	37	41
Slightly	2	46	48
More	4	34	38
In total	26	178	204

Source: Author's results.

In Table 14, the analysis is made according to higher education. It was found that about 46% of them state that the purchase and consumption of products marked with local indicators have extremely low and very low levels of food safety risks. It continues with 40% of consumers with a Master of Science qualification who estimate that the purchase and consumption of products marked with

local indicators have an extremely low level of food safety risks.

Table 14. Does the purchase and consumption of products marked with local indicators have a low level of food safety risks? [Olive oil] according to education.

Does the purchase and consumption of products marked with local indicators have a low level of food safety risks? [Olive oil]	Education				
	HE	SE	Ph. D	MS	In total
Nothing	9	1	1	11	22
Extremely very much	26	4	5	20	55
I do not know	22	2	3	14	41
Slightly	20	2	2	24	48
More	18	2	5	13	38
In total	95	11	16	82	204

Source: Author's results.

According to the profession, Table 15 presents that about 50% of consumers with a specialist profession say that the purchase and consumption of products marked with local indicators has an extremely low level of food safety risks. It continues with 40% of consumers with unspecified professions who estimate that the purchase and consumption of products marked with local indicators have an extremely low level of food safety risks.

Table 15. Can the purchase and use of food products marked with local indicators, such as olive oil, by occupation have a low health risk?

Can the purchase and use of food products marked with local indicators, such as olive oil, by occupation have a low health risk? [Olive oil]	Profession						
	Ad mini strat or	Busi ness man	Ma na ger	Spec ialist	Stu den t	Othe rs	In tota l
Nothing	2	3	1	1	3	12	22
Extremely very much	11	6	9	13	2	14	55
I do not know		2	4	5	7	23	41
Slightly		1	7	14	6	20	48
More	3		1	7	4	23	38
In total	16	12	22	40	22	92	204

Source: Author's results.

Review of findings on olive oil

To analyze the data related to olive oil, nominal econometric models were used. Ordinal models were used among the nominal models because the categories or levels of the dependent variable are ordered from the lowest to the highest (Osmani, 2017) [21].

Table 16. Model 1: Ordered Logit, using observations 1-204 (n = 173)

Missing or incomplete observations dropped: 31
 Dependent variable: ConsumOilLocal Brands
 Standard errors based on Hessian

	Coefficient	Std. Error	z	p-value	
Gender	0.454534	0.321641	1.413	0.1576	
Age	0.0149325	0.0139311	1.072	0.2838	
Education	-0.358470	0.226084	-1.586	0.1128	
Residence	0.0317766	0.558369	0.0569	0.9546	
Brand of Oil	0.342471	0.653806	0.5238	0.6004	
How important is the selling price of the product when choosing a favorite brand [Olive oil]	-0.305128	0.17584	-1.735	0.0827	*
How does the quality of service in the sales unit affect the choice of product brand [Olive oil]	0.464144	0.228061	2.035	0.0418	**
Does the promotion or advertisement of agro-food products influence the choice of brand [Olive oil]	0.512425	0.193731	2.645	0.0082	***
How important are the design and packaging with a local indicator in choosing the brand of the product [Olive oil]	0.522914	0.204204	2.561	0.0104	**
cut1	-2.59106	1.26455	-2.049	0.0405	**
cut2	0.688438	1.08982	0.6317	0.5276	
cut3	2.96155	1.12165	2.64	0.0083	***
Mean dependent var	2.208092	S.D. dependent var	0.779492		
Log-likelihood	-160.3325	Akaike criterion	344.6651		
Schwarz criterion	382.5046	Hannan-Quinn	360.0163		

Source: Author's results.

If p-value<0.1, then the corresponding coefficient is statistically significant, and it is said that the variable next to it has a significant effect on the dependent variable.

If the sign of the coefficient is positive, the effect is positive, and vice versa.

If the likelihood ratio test is Chi-square (9) = 89.6382 [0.0000]<0.05, then the model is significant.

The consumption of products marked with local indicators depended on the country of production. quality, price, promotion, and design with local indicators such as age, education, residence, brand (domestic or foreign).

Table 16 is destined to present the results regarding Model 1: Ordered Logit, for the dependent variable oil consumption from local brands, as shown in the table below.

Number of cases 'correctly predicted' = 99 (57.2%)

Likelihood ratio test: Chi-square(9) = 89.6382 [0.0000]

$$\begin{aligned} \wedge \text{ConsumOilLocalBrands} = & + 0.455* \text{Gender} \\ & + 0.0149* \text{Age} - 0.358* \text{Education} + \\ & 0.0318* \text{Residence} + 0.342* \text{BrandOil} \\ & (0.322) \quad (0.0139) \quad (0.226) \\ & (0.558) \quad (0.654) \end{aligned}$$

$$\begin{aligned} & - 0.305* \text{How important is the selling price} \\ & \text{of the product when choosing a favorite} \\ & \text{brand, [Olive oil]} + 0.464* \text{How does the} \\ & \text{quality of service in the sales unit affect the} \\ & \text{choice of product brand,[Olive oil]} + 0.512* \\ & \text{Does the promotion or advertisement of agro-} \\ & \text{food products influence the choice of brand,} \\ & \text{[Olive oil]} + 0.523* \text{How important are the} \\ & \text{design and packaging with a local indicator in} \\ & \text{choosing the brand of the product, [Olive oil]} \\ & - 2.59* \text{cut1} \\ & (0.176) \quad (0.228) \quad (0.194) \quad (0.204) \\ & (1.26) \end{aligned}$$

$$\begin{aligned} & + 0.688* \text{cut2} + 2.96* \text{cut3} \\ & (1.09) \quad (1.12) \end{aligned}$$

$$\begin{aligned} n = 173, \text{loglikelihood} = & -160 \\ & (\text{standard errors in parentheses}) \end{aligned}$$

In the above model, it was found that three variables (how the quality of service at the point of sale affects the choice of the product brand [Olive oil], does the promotion or advertising of agricultural products influence the choice of the brand [Olive oil], and how important is the design and packaging with local indications in the choice of the product

brand [Olive oil] have a significant positive influence on the level of consumption of the local brand olive oil. One variable has a negative influence (how important is the price for purchasing the product when choosing a preferred brand) [Olive oil], while other independent variables have not been proven to have a significant impact on the dependent variable. Thus, people who give more importance to the price tend to consume less of this oil; people who give more importance to quality tend to consume more of this oil; and people who give more importance to advertising, promotion, and design tend to consume more of this oil. If age was significant, then we would say that as age increases, the consumption of oil labeled with local indicators tends to increase. If gender were significant, then we would say that men tend to consume more of this oil. If education were significant, then we would say that more educated people would tend to consume less. If the brand were significant, then we would say that the foreign brand tends to be consumed more. Likewise, the urban area would tend to consume more.

The choice of domestic or foreign brand depends on income, education, residence, price, quality, design, and risk.

To clarify this aspect, it was used Model 2, which includes Multinomial Logit, having Oil brand as dependent variable as presented in Table 17 below.

Number of cases 'correctly predicted' = 141 (93.4%)

Likelihood ratio test: Chi-square(7) = 10.8937 [0.1433]

In the above model, it is found that three variables (education, how important is the selling price of the product when choosing a favorite brand, and how does the quality of service in the sales unit affect the choice of product brand) have a significant positive effect on the dependent variable, brand oil consumption.

Table 17. Model 2: Multinomial Logit, using observations 1-204 (n = 151)

Missing or incomplete observations dropped: 53

Dependent variable: Oil brand

Standard errors based on Hessian

	Coefficient	Std. Error	z	p-value	
const	-5.62675	2.52507	-2.228	0.0259	**
Incomes	0.006250 49	0.03080 3	0.2029	0.8392	
Education	0.96588	0.52206 1	1.85	0.0643	*
Residence	-0.038012 0	1.22716	-0.030 98	0.9753	
How important is the selling price of the product when choosing a favorite brand [Olive oil]	1.0239	0.51812	1.976	0.0481	**
How does the quality of service in the sales unit affect the choice of product brand [Olive oil]	-0.856175	0.514412	-1.664	0.096	*
How important are the design and packaging with a local indicator in choosing the brand of the product [Olive oil]	-0.042119 3	0.461659	-0.091 23	0.9273	
When buying and consuming products marked with local indicators, is there a low level of food safety risk [Olive oil]	-0.10043 3	0.41798 1	-0.24 03	0.8101	

Mean dependent var	0.066225	S.D. dependent var	0.249503
Log-likelihood	-31.36141	Akaike criterion	78.72283
Schwarz criterion	102.8611	Hannan-Quinn	88.52904

Source: Author's results.

Willingness to buy a domestic or foreign brand depends on income, education, place of residence, price, quality, design, and risk.

In this case, it was developed Model 3, reflecting Ordered Logit, for the dependent

variable "Desire of the respondents to buy the country olive oil" as shown in Table 18.

Table 18. Model 3: Ordered Logit, using observations 1-204 (n = 149)

Missing or incomplete observations dropped: 55

Dependent variable: Want to buy country oil

Standard errors based on Hessian

	Coefficient	Std. Error	z	p-value	
Incomes	0.0251777	0.0146425	1.719	0.0855	*
Education	0.0556324	0.273699	0.2033	0.8389	
Residence	-1.23320	0.668648	-1.844	0.0651	*
How important is the selling price of the product when choosing a favorite brand [Olive oil]	-0.171455	0.205373	-0.8348	0.4038	
How does the quality of service in the sales unit affect the choice of product brand [Olive oil]	0.376197	0.241095	1.56	0.1187	
How important are the design and packaging with a local indicator in choosing the brand of the product [Olive oil]	0.509453	0.212888	2.393	0.0167	**
When buying and consuming products marked with local indicators, is there a low level of food safety risk [Olive oil]	0.707997	0.196765	3.598	0.0003	***
cut1	-1.03454	1.36439	-0.7582	0.4483	
cut2	0.626446	1.30628	0.4796	0.6315	
cut3	3.21274	1.35825	2.365	0.018	**

Mean dependent var	2.469799	S.D. dependent var	0.71241
Log-likelihood	-115.8735	Akaike criterion	251.747
Schwarz criterion	281.7865	Hannan-Quinn	263.9515

Source: Author's results.

Number of cases 'correctly predicted' = 98 (65.8%)

Likelihood ratio test: Chi-square(7) = 72.4738 [0.0000]

In the above model, it results that two variables (How important are the design and packaging with a local indicator in choosing the brand of the product and When buying and consuming products marked with local indicators, is there a low level of food safety risk) have a significant positive effect on the dependent variable Want to buy country olive oil. Also, it is evident that the two variables (income and place of residence) have a positive effect on the dependent variable Want to buy country oil. From the above, the importance of design and packaging with local indicators in the choice of the product brand and increasing the consumption of olive oil is highlighted. Also, it is evident that the consumption of oil marked with local indicators is perceived as a product with a low level of food safety risks.

Consumption depends on income, education, residence, price, quality, design, advertising, and risk.

In this respect, it was used Model 4, Multinomial Logit for the dependent variable YVU (Consume olive oil), as shown in Table 19.

Number of cases 'correctly predicted' = 117 (78.0%)

Likelihood ratio test: Chi-square(8) = 70.7524 [0.0000]

In the model above, it is observed that three variables (how important is the selling price of the product when choosing a favorite brand, [Olive oil], does the promotion or advertising of agricultural products influence the choice of the brand, [Olive oil], and how important are the design and packaging with local indications in the choice of the product brand, [Olive oil]) have a significant positive effect on the dependent variable YVU (consume olive oil). Variables such as income and when you buy and consume products marked with local indicators, is there a low level of food security risk? [Olive oil] also have a positive impact on the level of local oil consumption (YVU).

Table 19. Model 4: Multinomial Logit, using observations 1-204 (n = 150)

Missing or incomplete observations dropped: 54
 Dependent variable: YVU (Consume olive oil)

Standard errors based on Hessian

	<i>Coefficient</i>	<i>Std. Error</i>	<i>z</i>	<i>p-value</i>	
const	-2.15149	1.46993	-1.464	0.1433	
Incomes	0.030411	0.01647	1.847	0.0648	*
Education	-0.366258	0.31977	-1.145	0.2521	
Residence	-0.891359	0.78062	-1.142	0.2535	
How important is the selling price of the product when choosing a favorite brand [Olive oil]	-0.666019	0.2754	-2.418	0.0156	**
How does the quality of service in the sales unit affect the choice of product brand [Olive oil]	-0.0942130	0.2932	-0.3213	0.748	
Does the promotion or advertisement of agro-food products influence the choice of brand, [Olive oil]	0.585305	0.26103	2.242	0.0249	**
How important are the design and packaging with a local indicator in choosing the brand of the product [Olive oil]	0.952578	0.28613	3.329	0.0009	***
When buying and consuming products marked with local indicators, is there a low level of food safety risk [Olive oil]	0.469229	0.24789	1.893	0.0584	*

Mean dependent var	0.613333	S.D. dependent var	0.488618
Log-likelihood	-64.70887	Akaike criterion	147.4177
Schwarz criterion	174.5135	Hannan-Quinn	158.4259

Source: Author's results.

These findings show that consumption of local products, such as olive oil, increases as a result of promotion, advertising, design, and packaging with local indications.

Willingness to consume unbranded products, but with country of origin indicators, depends on income, education, place of residence, gender, age, and number of family members.

These aspects are shown in Table 20 consisting of Ordered Logit for the dependent variable “Do you think you will buy and consume olive oil that is not branded but shows its place of production?”

Table 20. Model 5: Ordered Logit, using observations 1-204 (n = 179)

Missing or incomplete observations dropped: 25
 Dependent variable: Do you think you will buy and consume olive oil that is not branded but shows its place of production?

Standard errors based on Hessian

	<i>Coefficient</i>	<i>Std. Error</i>	<i>z</i>	<i>p-value</i>	
Incomes	0.0155743	0.0117086	1.33	0.1835	
Education	-0.327930	0.228787	-1.433	0.1518	
Residence	-1.39931	0.483802	-2.892	0.0038	** *
Gender	0.634885	0.30129	2.107	0.0351	**
Age	0.0197526	0.0121515	1.626	0.1041	
Member	0.0686962	0.118011	0.5821	0.5605	
cut1	-2.16320	1.19941	-1.804	0.0713	*
cut2	-0.557300	1.1851	-0.4703	0.6382	
cut3	2.40898	1.20509	1.999	0.0456	**

Mean dependent var	1.715084	S.D. dependent var	0.815817
Log-likelihood	-194.6106	Akaike criterion	407.2213
Schwarz criterion	435.9078	Hannan-Quinn	418.8534

Source: Author's results.

In the above model, it is found that two variables (residence and gender) have a significant positive effect on the dependent variable: Would you buy and consume

products that are not branded but have indications of the locality of production [olive oil]?

CONCLUSIONS

This study aims to evaluate how brands with local indicators influence the increase in demand for olive oil and, as a result, the increase in the income of the agricultural products processing sector. The review of the literature has revealed important information regarding the role of this strategy in increasing the willingness to consume local products and increasing the income of agro-processing industries. Also, the empirical data confirm important findings regarding the impact of the olive oil marked with local indicators in increasing the demand for consumption and improving the economic performance of the industries engaged in the processing of this product. From the results of the study, it is clear that branding with local indicators plays an important role in increasing the consumption of olive oil, due to the fact that, from the point of view of consumers, it is perceived as a product with a low level of food safety risks and a product with better quality high compared to imported products. Factors such as perceived higher quality, design with local indicators, and promotion or advertising improve consumer attitudes towards olive oil branded with local indicators, encourage repeat purchases, and increase revenues for olive oil industries. Also, the findings of the study confirm that the brand with local indicators constitutes added value and provides a competitive advantage to position itself in the market, elements that should be taken into consideration by the agro-processing industries of olive oil in the Vlora area.

REFERENCES

[1]Alon, I., Jaffe, E., Luceri, B., 2022, International marketing. Strategies, principles and applications. Giappichelli publications.
 [2]Baker, M.J., Ballington, L., 2002, Country of origin as a source of competitive advantage. Journal of Strategic Marketing. Vol.10(2), 157-168. <https://doi.org/10.1080/09652540210125297>

- [3]Balcombe, K., Bradley, D., Fraser, I., Hussein, M., 2016, Consumer preferences regarding country of origin for multiple meat products. *Food Policy*, 64, 49-62. <https://doi.org/10.1016/j.foodpol.2016.09.008>
- [4]Bertoli, G., Valdani E. 2018, *International marketing*. 2nd Ed. EGEA publications. Milano. 499 pages.
- [5]Bertoli, G., Valdani E., 2023, *International marketing*. 3rd Ed. EGEA, publications.
- [6]Beverland, M., Lindgreen, A., 2002, Using country of origin in strategy: The importance of context and strategic action. *Journal of Brand Management*. Vol.10. 147-167. <https://doi.org/10.1057/palgrave.bm.2540112>
- [7]Bhakar, S. S., Bhakar, S., Bhakar, S., 2013, Relationship between country of origin, brand image and customer purchase intentions *Far East Journal of Psychology and Business*, Far East Research Centre, Vol. 10(4), 25-47, February <https://ideas.repec.org/a/fej/articl/v10by2013i4p25-47.html>, Accessed on 20.04.2023.
- [8]Claret, A., Guerrero, L., Aguirre, E., Rincón, L., Hernández, M.D., 2012, Consumer preferences for sea fish using conjoint analysis: Exploratory study of the importance of country of origin, obtaining method, storage conditions and purchasing price. *Journal Food Quality and Preference*. Vol.26(2), 259-266. <https://doi.org/10.1016/j.foodqual.2012.05.006>
- [9]Corbett, P., 2015, *Social research: methodology and techniques*. Quantitative techniques. Il Mulino, publications. 336 pages.
- [10]Costa, C., Carneiro, J., Goldszmidt, R., 2016, A contingent approach to country-of origin effects on foreign products evaluation: Interaction of facets of country image with product classes. *Journal International Business Review*. 10 pages, <https://doi.org/10.1016/j.ibusrev.2016.01.003>
- [11]De Nisco, A., 2011, Country of origin e buyer behavior: una meta-analisi dalla letteratura internazionale. *Journal FrancoAngeli*. https://www.academia.edu/2290273/Country_of_origin_e_buyer_behavior_una_meta_analisi_dalla_letteratura_internazionale, Accessed on 10.03.2023.
- [12]Diamantopoulos, A., Schlegelmilch, B., Paliawadan, D., 2011, The Relationship between Country-of-Origin Image and Brand Image as Drivers of Purchase Intentions: A Test of Alternative Perspectives. *International Marketing Review*. Vol.28(5),508-524. <https://doi.org/10.1108/02651331111167624>, Accessed on 10.02.2023.
- [13]Elliott, M.N., Haviland, A., 2007, Use of a web-based convenience sample to supplement a probability sample. *Canada Statistics, Survey Methodology*, December 2007, Vol.33(2).
- [14]Esch, F., Langner, T., Schmitt, B.H., Geus, P., 2006, Are brands forever? How brand knowledge and relationships affect current and future purchases. *Journal of Product & Brand Management*. Vol.15(2), 98-105. <https://doi.org/10.1108/10610420610658938>
- [15]Herz, M.F., Diamantopoulos, A., 2013, Country-Specific Associations Made by Consumers: A Dual-Coding Theory Perspective. *Journal of International Marketing*. Vol.21(3),95-121. <https://doi.org/10.1509/jim.13.0004>
- [16]Hoang, H.T., Ho, K.N.B., Tran, T.P., Le, T.Q., 2017, The extension of animosity model of foreign product purchase: Does country of origin matter. *Journal of Retailing and Consumer*. Vol.64(C), <https://doi.org/10.1016/j.jretconser.2021.102758>
- [17]Hussein, M., Fraser, I., 2018, Hedonic Analysis of Consumers' Valuation of Country of Origin of Meat in the United Kingdom. *Journal of Agricultural Economics*. Vol.69(1),182-198. <https://doi.org/10.1111/1477-9552.12232>
- [18]Koschate-Fischer, N., Diamantopoulos, A., Oldenkotte, K., 2012, Are Consumers Really Willing to Pay More for a Favorable Country Image? A Study of Country-of-Origin Effects on Willingness to Pay. *Journal of International Marketing*. Vol.20, 19-41. <https://doi.org/10.1509/jim.10.01>
- [19]Kotabe, M., Jiang, C.X., 2011, Chapter 17. Contemporary research trends in international marketing. In *The Oxford Handbook of International Business* (2nd edn), pp.447-501. <https://doi.org/10.1093/oxfordhb/9780199234257.003.0017>
- [20]Lewis, K.E., Grebitus, C., Colson, G., Hu, W., 2017, German and British Consumer Willingness to Pay for Beef Labeled with Food Safety Attributes. *Journal of Agricultural Economics*. Vol.68(2), 451-470, <https://doi.org/10.1111/1477-9552.12187>
- [21]Osmani, M., 2017, *Methods of Econometrics*. Pegi, publications.
- [22]Pharr, J.M., 2005, Synthesizing Country-of-Origin Research from the Last Decade: Is the Concept still Salient in an Era of Global Brands. *Journal of Marketing Theory and Practice*. Vol.13(4), 34-45. <https://doi.org/10.1080/10696679.2005.11658557>
- [23]Roth, M.S., Romeo, J.B., 1992, Matching Product Category and Country Image Perceptions: A Framework for Managing Country-Of Origin Effects. *Journal of International Business Studies*. Vol.23(3), 477-497, <https://ideas.repec.org/a/pal/jintbs/v23y1992i3p477-497.html>, Accessed on 15.05.2023.
- [24]Schjøll, A., 2017, Country-of-origin preferences for organic food. *Journal of The International Society of Organic Agriculture*. Vol.7, 315-327. <https://doi.org/10.1007/s13165-016-0159-1>
- [25]Schnettler, B., Miranda, H., Lobos, G., Sepúlveda, J., Denegri, M., 2011, A study of the relationship between degree of ethnocentrism and typologies of food purchase in supermarkets in central-southern Chile. *Apetite*, Vol.56(3), 704-712, <https://doi.org/10.1016/j.appet.2011.02.007>
- [26]Schooler, R.D., 1965, Product Bias in the Central American Common Market. *Journal of Marketing Research*, Vol.2(4), 394-397, <https://doi.org/10.1177/00222437650020040>
- [27]Tan, C.T., Farley, J.U., 1987, The Impact of Cultural Patterns on Cognition and Intension. *Journal*

- of Consumer Research. Vol.13(4), 540-544,
<https://doi.org/10.1086/209087>
- [28]Twine, E.E., Rude, J., Unterschultz, J., 2016, Country of Origin Labeling and Structural Change in U.S. Imports of Canadian Cattle and Beef. *Journal of Agricultural Economics*. Vol.64(3), 545-563,
<https://doi.org/10.1111/cjag.12096>
- [29]Unahanandh, S., Assarut, N., 2013, Dairy Products Market Segmentation: The Effects of Country of Origin on Price Premium and Purchase Intention. *Journal of International Food & Agribusiness Marketing*. Vol.25(2),122-133.
<https://doi.org/10.1080/08974438.2013.723998>
- [30]Wu, L., Yin, S., Xu, Y., Zhu, D., 2014, Effectiveness of China's organic food certification policy: Consumer preferences for infant milk formula with different organic certification labels. *Canadian Journal of Agricultural Economics*, Vol.62(4), 545-568.
<https://doi.org/10.1111/cjag.12050>
- [31]Xie, J., Gao, Z., Swisher, M., Zhao, X., 2016, Consumers' preferences for fresh broccolis: Interactive effects between country of origin and organic labels. *Journal of the International Association of Agricultural Economists*. Vol.47(2), 181-191,
<https://doi.org/10.1111/agec.12193>
- [32]Xu, X., Comello, M.L.G., Lee, S., Clancy, R., 2020, Exploring Country-of-Origin Perceptions and Ethnocentrism: The Case of U.S. Dairy Marketing in China. *Journal of Food Products Marketing*. Vol.26, 102-179.
<https://doi.org/10.1080/10454446.2020.1722778>
- [33]Yeh, C.H., Chen, C.I., Sher, P.J., 2010, Investigation on perceived country image of imported food. *Journal of Food Quality and Preference*. Vol.21(7), 849-856.
<https://doi.org/10.1016/j.foodqual.2010.05.005>