Analyzing Albanian Consumer Preferences for Origin Using Cluster Analysis (The case of cheese)

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Abstract— this paper investigates the consumers' preferences (the case of Albanian consumer) for origin attribute of a familiar product (Feta type cheese) by using payment card Contingent Valuation method. The segmentation procedures such as Principal Component Analyses and k-Mean clustering identified five consumer segments namely: 1) best option buyer; 2) food safety buyer; 3) price driven buyer; 4) experienced buyer; 5) low-involved buyer. The familiarity with the product characteristics, the consumption experience, and the relationship buyer-seller are the main moderators of the origin importance in the process of preference creation. Income, age, family size and marital status are the main socioeconomic variables influencing WTP.

Keywords- Origin, Preferences, Contingent Valuation Method, Factorial Analyses, Cluster Analysis,

I. Introduction

The same as brand express in itself quality and inform consumer about the production company and its standards of production, the same functions perform geographical indication (Acebron & Dopico, 2000). While branded products can be delocalized, products with regional identity cannot be delocalized because the characteristics of the product relies heavily on the characteristics and the know-how etc. (Bérard & Marchenay, 2004)(Ittersum, 2001)(Holt & Amilien, 2007)(Barjolle, Boisseaux, & Dufour, 1998). Hence the differentiation strategy of the product based in territory cues is supported by the assumption that a product produced in a given area cannot be reproduced exactly in another geographic area (Bérard & Marchenay, 2004)(Barjolle et al., 1998; Bérard & Marchenay, 2007). Another justifications for such a differentiation strategy relies also on an increasingly demand of consumers for these products (Ittersum, Candel, & Meulenberg, 2003; Verleigh, 2001). From a marketing viewpoint using a name that is already known will result more efficient and less costly because producers do not have to inform consumers regarding the product. Affective and normative connotations are other aspect inferred by geographical origin like authenticity (Philippidis, Kakarouglou, & Sanjuan, 2002) unique, exclusive, authentic (Stolzenbach, Bredie, Christensen, & Byrne, 2013). Traditional products are defined as coming from a specific area, produced with specific know-how and disposing specific sensorial properties (Bérard & Marchenay, 2004)(Bérard & Marchenay, 2007). Traditional was defined as unique, familiar, more appropriate and consumers expressed low health risk compared to conventional one (Stolzenbach, Bredie, & Byrne, 2013).

Recent studies show that Albanian consumers have strong links with products coming from specific geographical areas (Imami et al., 2014) (Barclay, 2010)(Imami, Chan-Halbrendt, Zhang, & Zhllima, 2011). These products are evaluated by their higher level of authenticity, traditional aspects etc (Imami et al., 2014)(Ministry of agriculture 2011) (Kokthi, 2008). Previous research, show that Gjirokastër Feta type cheese (Imami et al., 2014)(Bourbouze & François, 2001; Kokthi, 2008), has strong links with the territory of production and is highly preferred by Albanian consumers. However there is an information gap concerning the origin effects in consumer preferences, willingness to pay (WTP) and the impact of consumers' sociodemographics characteristics in decision whether to consume traditional food product or a conventional one. The purpose of this analysis is to develop a better understanding of Albanian consumer preferences for origin, both in terms of WTP as well as the underlying factors affecting these preferences. The coming issues regarding food product-origin and quality instruments such as Protected Denomination of Origin (PDO) and Protected Geographical Indication (PGI) in the pre- accession process to the European Union (EU) make the analysis of Albanian case as particularly important.

Many studies try to understand the drivers of the existing relationship between the origin (national, regional, local) of the product and consumer preferences expressed by willingness to pay. Several methods are employed for this purpose: 1) Contingent valuation method (Bolliger & Réviron, 2008; Loureiro & Hine, 2002; Loureiro

& Umberger, 2005; Menapace, Colson, Grebitus, & Facendola, 2009); 2) Conjoint analyses (Resano, Sanjuan, & Albisu M, 2012) (Padilla, VillaLobos, & Henry, 2005)(Berni, Romani, & Rivello, 2009; Cortinas, Chocarro, Elorz, & Villanueva, 2007; Imami et al., 2011); 3) Choice experiment (Loureiro & Umberger, 2004); 4) Experimental auctions (Alfnes & Rickertsen, 2007; Bazoche, Combris, & Giraud-Heraud, 2009; Brugarolas, Carrasco, Poveda, & Ruiz J, 2009; Stefani, Romano, & Cavicchi, 2006) etc. A branch of research is focused as well on the relationship between consumer characteristics and preferences for origin. Most of these studies have focused on socio-economic factors like gender, age, education, income, family size, children in the household etc. Table 1summarizes a non exhaustive list of these papers and the effects of consumers' socioeconomic characteristics in the WTP.

Table 1: The relationship between socio-economic characteristics and origin in published research studies

Research study	Method		Socio economic characteristics					
	used	Gender	Age	Income	Education	Hh size	Marital status	Consumpti on frequency
(Bonnet & Simioni, 2001)	Scanner data	na	+	+	na	na	na	na
(Lobb E & Mazzochi, 2006)	Survey	0	+	-	-			
(Quagrainie, Unterschultz, & Veeman, 1998)	Conjoint analysis	na	-	0	na	-	na	na
(Becker, 1999)	Survey	+(W)	-	0	0	+	na	0
(Loureiro & Umberger, 2005)	Contingent Valuation	+(W)	-	+	-	0	na	na
Umberger, Feuz, Calkings, & Sitz, 2003)	Auction	0	+	-	+	na	na	Na
(Resano et al., 2012)	Conjoint analysis	0	+	+	0	na	na	na
(Sànchez, Beriain, & Carr, 2012)	Sensorial test	0	0	+	+	0	na	0
(Stefani, Romano, & Cavicchi, 2006)	Auction +sensorial	0	0	na	0	na	na	na
(Lange, Martin C., Chabanet C., Combris P., & Issanchou S, 2002)	Auction+ Sensorial	+(W)	+	0	na	na	na	+
(Bazoche et al., 2009)	Auction+ sensorial	-(W)	0	0	na	0	na	na

Note: Statistically significant relationships are denoted by a + for a positive relationship, (-) for a negative relationship, (0) no significant relationship; n.a. indicates variable not included variable in the mentioned study.

The paper aim to a) to elicit WTP for origin attribute of Albanian consumer's very familiar product, b) to find out whether socioeconomic variables are important determinants of consumer preferences for origin as well as, c) to analyse the relationship between consumer preferences for origin and consumer characteristics. The lack of PDO or PGI in Albania makes impossible the direct observation of consumer preferences for origin products having a denomination quality sign. In this study to elicit WTP is used a payment card technique of Contingent

Valuation Method (CVM). To identify consumer segments factorial analyses combined with clustering techniques is performed. This paper is organized as it follows: the next section deals with a literature review related to CVM and market segmentation, the second section will present the method and procedures used for the purpose of this study, the third section explains briefly the main statistical methods used and the fourth section gives the result. Discussions and conclusions will end the paper.

1.1 Contingent valuation method

Contingent valuation method has been shown to be potentially very useful for eliciting information about demands for non market goods(Cameron & Huppert, 1989). These methods discern the likely behaviour of consumers by posing them in a hypothetical scenario(Portney Paul R, 1994). The flexibility of this methods compared to revealed methods such as hedonic prices or experimental auctions is very useful and can be easily adapted in other contexts not only in western countries. Several scholars use CVM to estimate consumer preferences for different food and agriculture product attributes. (Misra, Huang, & Ott, 1991) approached CVM to estimate consumer preferences for certified residue -free product.(Catherine K. Halbrendt, Pesek, John D.,, April Parsons and Robert K. Lindner, 1995) estimated using CVM approach to estimate WTP for fat-reduction in pork-chops,(Buzby, Fox, Ready, & Crutchfield, 1998) had estimated WTP for food safety ,(Loureiro & Hine, 2002) estimated premium prices for local, organic and GMO-free product . (Loureiro & Umberger, 2005) estimated WTP for origin attribute relating to meat in US,(Spence & Townsend, 2006) used CVM to valuate preferences for GMO in Great Britain. (Bolliger & Réviron, 2008) estimates Swiss consumer preferences for Swiss chicken origin,(Menapace et al., 2009) also uses CVM to estimate consumer WTP for wine with a denomination of origin..

II. METHODOLOGY

2.1 Data survey and payment card design

Data are gathered from a survey conducted during January-march 2012 in different location of Tirana city(Albania) with 285 cheese consumers. The questionnaire consists in 3 sections. The first section collect the information of demographical characteristics of the respondents including gender, age, education, income, marital status, house hold size etc. The second one collects the information of cheese consumption behaviour, expenses, buying frequency, the purchase place and also identify the characteristics they retain as important during purchase process. Among the attributes considered are: taste, type of cheese, price, origin, and trust on purchase unit, producer information and food safety certificate. In addition for respondent that are willing to pay a premium for origin attribute we have asked if this premium is related to taste, tradition & typicality, freshness, nutritional values or food safety. Table 2 reports the descriptive statistics of our sample and the statistics of the variables included in the study.

The third section is focused on the contingent scenario. The payment card design in this paper is based on(Hu, Woods Timothy, Bastin, Cox, & You, 2011) approach. The respondents were asked as following: Assuming that 1kg of white cheese (Feta type cheese) is priced at 400ALL in your usual shopping unit (diary shop, minimarket or supermarket) how much are you willing to pay for a Kg of feta cheese produced in Gjirokastër Region. Respondents were presented 12 bid intervals: 401-410, 411-420, 421-430... 511-520 ALL/Kg. Finally we have included also the response zero payment and the option that indicates that they do not wish to pay any positive amount for Gjirokastër Cheese. Respondents could mark an interval as an indication of their willingness to pay. Hence is possible have the possibility to capture values that are not listed in the payment card. Negative WTP are also included suggesting that consumers may require compensation to consume cheese from Gjirokastër. No negative payment is observed in this study. We have opted for only one payment card instead of having different cards.

Table 2 Socio economic variables and Cheese behaviour

Variables	Levels	%	Level description	Mean	Standard Deviation
Gender	Women	30.1	1	0.69	0.45
	Men	69.8	0		
Age	18-24	12.2	1	3.02	1.37
	25-34	30.1	2		
	35-44	22.8	3		
	45-54	16.4	4		
	55-64	14.	5		
	65+	4.2	6		

	* (1.0)	44.0		2.22	0.44
Education	Low (1-8 years)	11.2	1	2.33	0.66
	Medium (8-12	44.5	2		
	years)	44.2	3		
	High (more than 12				
	years)				
Marital status	Married	68	1	1.38	0.60
	Bachelor	25	2		
	Other	6.6	3		
Incomes (in	10,000-30,000	15.4	1	2.80	1.28
ALL)	30,000-60,000	31.9	2		
ŕ	60,000-90,000	24.5	3		
	90,000-120,000	12.6	4		
	>120,000	15.4	5		
Family size	1-2	17.5	1	2.46	0.78
•	3	19.2	2		
	>4	63.1	3		
House hold	3000-17,999	5.9	1	3.24	1.08
expenses	18,000-32,999	21.7	2		
_	33,000-47,999	24.5	3		
	63,000-77,999	37.8	4		
	>77,999	9.8	5		
Cheese	300-2,299	51.5	1	1.66	0.82
expenses(of	2,300-4,299	35.4	2		
monthly	4,300-6,299	8.4	3		
income	>6,299	4.5	4		
Buying	0-3	45.9	1	1.62	0.63
frequency	4-7	45.9	2		
	>8	8.	3		
	Diary shop	35.	1	2.43	1.16
Purchase	Diary production	6.3	2		
place	unit	39.2	3		
	Minimarket	19.2	4		
	Supermarket	1 / . 2	7		

Source: data survey

2.2 Market segmentation procedures

The market analysis seeks to identify consumers that are the most likely to pay for origin attribute. Markets are typically segmented by defining groups of consumers with similar needs and wants (Baker & Burnham, 2001). Market segmentation is used to develop a better understanding of consumers motives and to facilitate the designs of marketing plans (Baker & Burnham, 2001; Baker & Crosbie, 1993; Baker, 1999; Gil & Sanchez, 2001; Kim & Boyd, 2004). Basing policy and marketing decisions on the preferences of consumer segment should lead to policies which better meet consumer needs, compared to policy or marketing choices based on average consumer preference (Baker & Crosbie, 1993). The data gathered from the contingency scenario involved a two step method in sequence. First factor analysis is used to explore underlying factors that are important for cheese purchase decision and more specifically for Gjirokastër cheese. Factor analysis is a multivariate statistical procedure for grouping similar variables into subset when they are highly correlated. The variation among variables is summarized in few underlying random variables called factors. The survey questionnaire in this study included 22 observable variables that are considered (by the literature and expert

based knowledge) to be important in the cheese buying decision process. Thus factor analyses allow us to reduce these 22 variables in smaller set of factors. The second step involves cluster analysis to identify groups of consumers that pay the highest premium and with which attribute is linked the extra payment for origin. Factor analysis combined with cluster analyses has been reported to have superior performance than other clustering techniques (Kim & Boyd, 2004).

III. EXPERIMENTAL RESULTS

According to (Hackl & Pruckner, 1999; Hanemann & Kanninen, 1998; Mahieu, Riera, & Giergiczny, 2012; Tian, Yu, & Holst, 2011)the interval midpoint is calculated as an approximation of consumer WTP when the latter is presented in intervals. This method ignores the fact that the expected values within the interval are not necessarily equal to the interval midpoints. Nevertheless when the data are used simply to estimate average values or to estimate relationships between the values and consumer characteristics this approach can be useful. This is the first step of the paper. On a second step it is performed a consumer segmentation using 1) Factorial Analysis to identify the underlying factors, 2) a two step cluster procedure - hierarchical to identify the appropriate number of clusters and 3) non hierarchical clustering method (K-Mean) to identify the consumer characteristics for each cluster (Hair, Anderson, Tatham, & Black, 1998). For the factor analysis it is adopted, the method of principal component analysis (PCA) with Varimax rotation(Solano, Leon, Perez, & Herrero, 2003); This method avoids the problem of multicollinearity between the variables used in the cluster analysis (Field, 2009).

3.1 Results of Factor Analysis

The literature points out two main tests used to test the validity of the data and selecting variables for Factor Analysis. Kaiser-Meyer-Olkim (KMO) (1970) test is used to measure the relationship between variables. This test shows the proportion of variance in selected variables that can be caused by Underlying Factors. The Kaiser-Meyer-Olkim is measure of sampling adequacy. A test value of greater than 0.5 indicates that the selected variables have sufficient correlation to apply the Factor analysis(Field, 2009). -Bartlett's test of Sphericity, statistically significant at 1% level, is used to test the Null hypothesis that the correlation matrix is an index matrix that shows that the variables are perfectly independent. In our case the KMO measure of sampling adequacy is 0.66 and Bartlet test with statistically significant P-values (p<0.01) indicate the validity of factor analysis.

A component is statistically significant if the Eigen value is above one (Guttman-Kaiser rule) (Iraizoz, Gorton, & Davidova, 2007; Kobrich, T, & M, 2003). In our case this is true for the first nine components.

Table 3 shows that nine components gather more than 64% of the initial variance of variables retained. This result is in line with papers using the same techniques (Iraizoz et al., 2007).

Table 3: Factor analysis and total variance explained

				Data	4: C	- f. C 1
	Ini	itial Eigen va	alues	Kota	tion Sums (Loadin	•
	Total	Share of	Cumulative	Total	Share of	Cumulative
Components		variance	share		Variance	share
1	2,939	13,360	13,360	2,330	10,589	10,589
2	2,726	12,393	25,752	1,961	8,913	19,502
3	1,646	7,483	33,236	1,921	8,734	28,236
4	1,380	6,271	39,507	1,690	7,680	35,916
5	1,277	5,802	45,309	1,506	6,847	42,763
6	1,207	5,489	50,798	1,263	5,741	48,504
7	1,074	4,883	55,681	1,259	5,721	54,226
8	1,034	4,701	60,382	1,242	5,643	59,869
9	1,013	4,605	64,987	1,126	5,118	64,987
10	,877	3,987	68,974			
11	,839	3,815	72,789			
12	,786	3,574	76,363			

13	,719	3,266	79,630		
14	,652	2,964	82,593		
15	,630	2,864	85,458		
16	,568	2,582	88,040		
17	,559	2,540	90,580		
18	,530	2,411	92,991		
19	,483	2,196	95,187		
20	,418	1,899	97,086		
21	,385	1,749	98,835		
22	,256	1,165	100,000		

The factor loadings are the correlation coefficients between the specific factor and the original variables (Field, 2009). In Table 4 the variables associated to each factor are highlighted. (Steven, 2002)suggests highlighting loading greater than 0.4. This is widely applied to PCA analysis for easier analysis of results (Field, 2009).

Table 4: Factor loadings Rotate Component Matrix

	Factors										
Variables	1	2	3	4	5	6	7	8	9	F(value)	p(value)
Gender	-0,048	-0,241	-0,001	-0,121	0,703	0,124	0,062	0,022	0,017	1,516	,174
Age	0,043	-0,147	-0,206	0,774	0,156	-0,003	0,086	0,109	-0,05	60,028	,000
Marital	-0,263	0,048	-0,23	-0,687	0,014	0,012	0,078	0,135	0,046	7,643	,000
Status											
Education	0,072	0,648	-0,126	-0,447	-0,045	0,06	-0,033	0,095	-0,137	11,923	,000
Income	0,018	0,785	0,217	-0,058	-0,13	0,12	0,072	-0,133	-0,012	48,494	,000
Hh size	0,118	-0,076	0,623	0,026	-0,121	0,053	0,039	-0,325	0,28	23,178	,000
Hh	0,027	0,713	0,426	0,093	0,018	0,13	0,077	-0,117	0,114	99,230	,000
expenses											
Cheese	-0,047	0,267	0,729	-0,083	0,069	0,094	0,147	0,12	-0,172	26,198	,000
expenses											
Buying	-0,053	0,154	0,751	0,036	0,025	-0,088	-0,1	0,178	-0,033	44,810	,000
frequency											
Shopping	-0,048	-0,007	-0,015	-0,035	0,091	-0,027	-0,009	0,04	0,914	8,417	,000
place											
Taste	0,161	0,077	0,027	0,248	0,648	0,043	-0,012	-0,014	0,1	3,910	,000
Type	0,095	0,011	0,196	-0,158	-0,379	0	0,08	0,681	0,038	1,326	,192
Price	0,168	-0,19	-0,021	0,13	0,264	0,052	-0,01	0,662	0,016	3,625	,000
Origin	0,147	0,156	0,043	0,034	0,197	-0,15	0,786	0,033	0,127	1,881	,063
Productio	0,142	-0,071	0,005	0,008	-0,231	0,389	0,682	0,017	-0,224	1,599	,125
n unit											
info											
Shop unit	-0,012	0,297	-0,098	0,417	-0,055	0,452	0,112	0,282	0,158	2,045	,041
info						_					
Food	0,063	0,193	0,033	-0,014	0,177	0,767	0,017	0,004	-0,055	4,541	,000
Safety											
certificate	0.620	0.007	0.101	0.10	0.007	0.270	0.102	0.057	0.017	1.700	070
Freshness	0,639	-0,097	0,191	-0,19	0,087	0,378	-0,102	-0,057	0,017	1,790	,079
Tradition	0,677	0,126	-0,098	0,19	0,084	-0,017	-0,013	0,032	-0,059	2,210	,027
al aspects	0.400	0.102	0.007	0.151	0.210	0.260	0.120	0.106	0.145	2.010	005
Taste	0,499	0,103	-0,007	0,151	0,318	-0,269	0,128	0,106	-0,145	2,810	,005
Food	0,687	-0,026	0,002	0,022	0,105	-0,019	0,247	0,129	-0,05	2,213	,027
Safety	0.720	0.01	0.007	0.006	0.222	0.002	0.07	0.051	0.100	1 557	120
Nutrition al value	0,729	-0,01	-0,007	0,086	-0,233	0,083	0,07	0,051	0,109	1,556	,138
ai vaiue											

Source: survey data analysis

The factors resulted from the principal component analysis (PCA) are used in the two other clustering methods: Firstly a hierarchical clustering method is used to define the most appropriate clusters number within the sample. The final result is taken by cutting the dendograme on the level 5 of the linkage distance which the lowest is cut giving a reasonable number of clusters. In this case the cluster number is 5. The cluster selection is supported by the ANOVA test (High F-values and p<0.01). The second step of clustering is the non-hierarchical clustering. We have used K-Means Cluster Analysis with the number of clusters defined by the previous stage. This algorithm uses the variance within each cluster as a measure of homogeneity for segmenting data in order to minimise the variance within a cluster (Moi & Sarstedt, 2011).

3.2 Cluster Description

Table 5: Clusters description

			T.						
Segment 1	Segment 2	Segment 3	Segmen4	Segment5					
Best buyer option Consumers that finds the best	Safety driven buyers – consumers that prefer safety	Price drive buyers- consumers that estimate the higher	Experienced buyers- consumers that consider all the	Low-involved buyers-					
combination of a group of options without a clear preference for one	more than other features	price as an indicator of quality	quality indicators of the product	Lack of information about the product they collect					
of them	(15%)	(20%)	(25%)	information to chose the product (23.5%)					
(16.5%)									
Some characteristics of	Some characteristics of preferences								
Better taste	Safety products	Retailer information	Higher price	Price					
With the lowest price possible,	Retailer information (about the production area and production unit)	Traditional way of production	The origin of the product	Retailer information					
Using the retailer information	Produced in a traditional way		The retailer information	Safety conditions of production					
A safety product produced in a traditional way			The safety						
			The traditional area of production						
Some demographic cl	naracteristics of each gr	oup							
Middle Age (45-54 years old)	Young (35-44 years old)	Young (25-34 years old)	Young (25-34 years old)	Young (35-44 years old)					

Mostly married (72%)	Bachelors (95%)	Young couples (70%)	Bachelor (57%)	Married (83%)
High school educated (64%)	Lower-middle educated (91%)	Higher education (65%)	Higher education (62%)	Middle higher education (92%
Middle income (42%)	Lower income	High incomes (60%)	Lower income (40%)	Middle income (52%)
Small family -1-2 members (53%)	Large family -more than 4 members (80%)	Large household (79%)	Medium household (49%)	Large household (80%)
Buying in diary production units/minimarkets (80%)	Buying in minimarket shops	Buying in specialized production units (50%)	Non specified	Buying in minimarket

The next step in the analysis is to profile the clusters. According to (Hair et al., 1998) profiling the clusters is the way of considering the practical significance of the clusters in meeting the objective of marketing segmentation. A profile of each of the five groups is established from the averages factor scores see

for each group and from the identification of demographic, behavioural, attributes retained as important in buying decision process, and attributes associated to origin. K-Mean ANOVAs excluded from the analyses variables such as gender, producer information, nutritional value of the cheese and freshness. These factors seem to be homogenous in the five identified clusters. The five clusters are identified as it follows:

The first consumer segment select the product taking into a consideration not a single characteristic but the combination of a bunch of them. For this group it is not important to have the cheapest product, or cheese coming from a well known production area, but a product that collect the best combination of the all these features. This segment is characterized by consumers of a middle age, with a middle level of education and not very high incomes. They buy mostly in dairy production units (characterized by products of higher quality but limited variability), or in minimarkets (the second option of shopping place, have higher product variability but lower prices as well). This selection of purchase place shows clearly the objective of this consumer segment to find the best option. In this cluster we observe a viable relationship buyer-seller. This group of consumers is willing to pay a limited premium of 15.6% for the cheese coming from Gjirokastër area. This finding is in line with the works of (Guerrero, 2001) which shows that the importance given to origin cue depends on the perceived risk toward distribution channel. Meaning that when consumer is confident with the information provided by the seller, he or she, will not rely on origin while making decision. In this case the relationship with the diary production unit moderates the role of the origin in the product evaluation and WTP.

The second consumer segment – Safety driven consumers – is characterized by the consumers that are not especially concerned by the quality of the product but by the safety of the later. They have low income level and select the safer product with the lower price. The shopping place (minimarket) where a large variety of products can be found is another indicator of their selection objectives. This segment does not focus on origin when buy cheese and their WTP for Gjirokastër origin is linked to food safety. These are young people, living with their parents. This finding is in line with other works (Lobb E & Mazzochi, 2006) that conclude that lower levels of education and from lower socio-economic groups' links origin with more safe food.

The third segment –Price driven consumers – use the price as the main criterion of selection. The lack of experience in cheese selection and their higher incomes, allow them to purchase the most expensive cheese as one of the best quality. They have the highest level of premium for cheese coming from a well known production region. Consumer lacking experience tend to focus on credence attributes in the product evaluation process (Veale, Quester, & Karunaratna, 2006) (Goldstein et al., 2008). Indeed this segment pays the highest premium for the Gjirokastër feta cheese.

The **fourth segment of experienced** consumers has a high evaluation for the origin based cheese, but the extra premium is lower. This is due to their large experience in cheese selection. Their choice is driven by the combination of several features of the product selecting the best one without taking particularly care of the price. On the other side their experience allows them not to over evaluate the importance of one specific product feature (like the origin in our case). This finding is also in line with (Guerrero, 2001) experienced consumer usually do not focus to origin but to other cues of the product and also with Agrawal and Kamakura (1999),(Verleigh & Steenkamp, 1999) they show that the effect of country of origin in consumer behaviour will be lower if other cues are available and also with (Schifferstein H, 2001) which shows that: in general the

impact of cognitive information on product evaluation increases with the increase in ambiguity of the trial experiences. **The last group** gathers low involved or indifferent cheese consumers. They seem to be large families who buy in the same unit but not the same product, for them cheese is a product like the others and it should not deserve a special attention in the selection phase. Their premium for Gjirokastër cheese is higher than in clusters 1 and 4, this is due mainly to the fact that they lack of experience. Price is important during their decision making process which is also reflected in their preferences to buy cheese only in minimarkets. These consumers are difficult to motivate or convince with additional information such as origin.

IV. CONCLUSION

The study uses a stated preference method to ascertain consumer preference for specific geographical area. The analysis shows that Albanian consumer is willing to pay from 15% to 20% for origin. The consumers estimate the traditional feature of this product. This result supports other findings regarding consumer preferences toward Gjirokastër cheese as traditional local product (Imami et al., 2014). A former study has reported (EU,FAO, 2013) almost the same results regarding WTP for Gjirokastër cheese. According to above mentioned study(EU,FAO, 2013) —which uses a open-ended question survey,—57 percent of the respondents state that they would prefer to buy cheese from Gjirokastër and they are willing to pay in average a premium of 23% for the cheese coming from this area. Payment card technique used in the present study revealed that- 41,5% of the interviewee declared an extra payment about 15% and 58,5% are willing to pay about 20% above the anchor price.

Origin did not represent the most important attribute in the product evaluation process and cheese buying decision. This finding is in line with other scholars findings: Agrawal and Kamakura (1999),(Verleigh & Steenkamp, 1999) show that the effect of country of origin (regional, local) in consumer behaviour will be lower if other cues of the product are available. (Guerrero, 2001) also find out that despite the sensitivity of consumers regarding the origin of the product, this cue was the least evaluated among other cues of the product. Food safety and shop unit information are the most preferred attributes in the cheese buying decision process. This result makes in evidence the increasing concern of Albanian consumer for food safety issues.

The importance of information available in the shopping place reveals the fact that the cheese buying behaviour in Albania is often based in a long-lasting relationship between buyers and sellers and the information furnished by the seller. Taste is not selected among the most important attributes in the evaluation process. This result is mainly due to: 1) the fact that consumers can taste the product before purchasing it, thus the consumer can control this information by himself; 2) in hypothetical scenarios intrinsic cues (like taste) are underestimated. Scholars (Goldstein et al., 2008) show that in naturalistic scenarios (test experiments) with the product the extrinsic information tends to be less important and the intrinsic more important one.

Young couples, highly educated, with higher incomes, large families buying in specialized production units show the highest premium for origin attribute. On the other side older people, small family size, low incomes are willing to pay less for origin. The five identified clusters show the effect of socio-economic characteristics of the sample in consumer preferences for origin. Best option buyer cluster and its preference for information from the seller moderates the effect of origin, safety buyer focuses more in safety of the product than origin while buying cheese and when the region is specified they select it for safety reasons. The third segment preferences (price driven buyer) are in line with the literature (Schifferstein H, 2001). In general the impact of cognitive information on product evaluation is higher if the trial experience is not solid. The same conclusion but on the other side can be made even for the fourth cluster (experienced buyer) the high experience with the product, decrease the impact of cognitive information in this case origin. The last cluster group's indifferent consumer toward cognitive cues such as origin however the reputation of Gjirokastër region is perceived and their extra payment is considerable compared to the first and fourth clusters. As conclusion the risk linked with distribution channel, the number of the cues offered to the consumer, the type of the product (a very familiar one) the experience of consumers highly moderates the importance of origin.

This research gets insight to Albanian consumer preferences for origin and is suggesting that territory branding strategies such as PDO and PGI might be successful in Albania. Gjirokastër Cheese is facing the problem of non homogenous supply (Bourbouze & François, 2001; Kokthi, 2008) and also the usurpation of the name by other producers of other regions. Considering that PDO and PGI are quality instruments that play an important role against misuse, imitation, and any other practice liable to mislead the consumer. This is another reason why public policy in Albania should consider and promote these branding instruments.

REFERENCES

[1] Acebron, L. B., & Dopico, D. C. (2000). The importance of intrinsic and extrinsic cues to expected and experienced quality: an empirical application for beef. Food Quality and Preference, (11), 229–238.

- [2] Agrawal, J., & Kamakura, W. A. (1999). Country of Origin: A competitive advantage? International Journal of Research in Marketing, 16, 255–267.
- [3] Alfnes, F., & Rickertsen, K. (2007). Extrapolating experimental-auction results using a stated choice survey. Europian Review of Agricultural Economics, 34(3), 345–363.
- [4] Baker, G. A. (1999). Consumer preferences for food safety attributes in fresh apples: Market segments, consumer characteristics and marketing opportunities. Journal of Agricultural and Resource Economics, 24(1), 80–97.
- [5] Baker, G. A., & Burnham, T. A. (2001). Consumer Response to Genetically Modified Foods: Market Segment Analyses and Implications for Producers and Policy Makers. Journal of Agricultural and Resource Economics, 26(2), 387–403.
- [6] Baker, G. A., & Crosbie, P. J. (1993). Measuring Food Safety Preferences: Identifying Consumer Segments. Journal of Agricultural and Resource Economics, 18(2), 277–287.
- [7] Barclay, D. (2010). The Bread Tree in Land of Eagles. on the Pertinence of Institutionalizing a Geographical Indication for Tropoje Chestnuts Albania an Ecological Economic Perspective. Doctoral dissertation, Graduate Institute of International and Development Studies).
- [8] Barjolle, D., Boisseaux, S., & Dufour, M. (1998). Le lien au terroir (Bilan de Travaux de Recherche). Lausanne, Switzerland: Institut d'Economie Rural.
- [9] Bazoche, P., Combris, P., & Giraud-Heraud, E. (2009). Willingness to pay for Appellation of Origin: Results of an Experiment in France and Germany.
- [10] Becker, T. (1999). Country of Origin As a Cue for quality and safety of fresh meat (pp. 187–208). Presented at the Actes et comunications-Institut national de la recherche agronomique, France: Economie et sociologie rurales.
- [11] Bérard, L., & Marchenay, P. (2004). Protéger sans appauvrir. In Les Produits De Terroir Entre Cultures Et Réglements (Vol. 1, pp. 45–77). France: CNRS.
- [12] Bérard, L., & Marchenay, P. (2007). Localized Products in France: Definition, Protection and Value Adding. Antropology of Food (S2).
- [13] Berni, R., Romani, A., & Rivello, R. (2009). Consumer Preferences and Territorial Certification: The Case of Four Val D'orcia Food Products. Quaderni Statistica, Liguori Editore, Napoli, Italy, 11, 203–227.
- [14] Bolliger, C., & Réviron, S. (2008). Consumer Willingness to pay for Swiss Chicken Meat: An in store survey to link stated and revealed buying behaviour. Presented at the 12 th Congress of the European Association of Agricultural Economists – EAAE.
- [15] Bonnet, C., & Simioni, M. (2001). Assessing consumer response to protected designation of origin labelling: a mixed multinomial logit approach. Europian Review of Agricultural Economics, 28(4), 433–449.
- [16] Bourbouze, A., & François, M. (2001). Terroir et Fromages en Albanie: Recomposition des filières latiéres dans une économie en transition. Options Méditerranéennes, Sér B/n° 28.
- [17] Brugarolas, M., Carrasco, M., Poveda, A., & Ruiz J, J. (2009). A competitive strategy for vegetable products: Traditional varieties of tomato in the local market. Spanish Journal of Agricultural Research, 7(2), 294–304.
- [18] Buzby, J. C., Fox, J. A., Ready, R. C., & Crutchfield, S. R. (1998). Measuring Consumer Benefits of Food Safety Risk Reductions. Journal of Agricultural and Applied Economics, 30, 69–82.
- [19] Cameron, T., & Huppert, D. (1989). Ols Versus Ml Estimation on Non Market Resource Values with Payment Card Interval Data. Journal of Environmental Economics and Managment, (17), 230–246.
- [20] Catherine K. Halbrendt, Pesek, John D.,, April Parsons and Robert K. Lindner. (1995). Using conjoint analysis to assess consumer acceptance of PST- Supplement Pork. Valuing Food Safety and Nutrition (1995).
- [21] Cortinas, M., Chocarro, R., Elorz, M., & Villanueva, M. L. (2007). La importancia del atributo origen en la eleccion de productos agroalimentarios. El caso del esparrago de Navarra. Economia Agraria Y Recursos Naturales, 7(13), 57–90.
- [22] EU,FAO. Mik Sector Study, Pub. L. No. GCP/ALB/014/EC IPA 2009 (2013).
- [23] Field, A. (2009). Discovering statistics using SPSS (3rd ed.). London: Sage Publications Ltd.
- [24] Gil, J. G. A., & Sanchez, M. (2001). Market Segmentation and Willingness to pay for organic product in Spain. International Food and Agribusinnes Management, pp. 207–226.
- [25] Goldstein, R., Almenberg, J., Dreber, A., Emerson, J., Herschkowitch, A., & Katz, J. (2008). Do more expensive wines taste better? Evidence from a large sample of blind tastings. Journal of Wine Economics, 3(1), 1–9.
- [26] Guerrero. (2001). Marketing PDO and PGI. In Food, People and Society a Europian Perspective of Consumer Choices.
- [27] Hackl, F., & Pruckner, G. J. (1999). On the gap between payment card and closed ended CVM answers, 733–742.
- [28] Hair, J., Anderson, R., Tatham, R., & Black, W. (1998). Multivaritate data analysis (5th ed.). New Jersey: Prentice Hall.
- [29] Hanemann, M., & Kanninen, B. (1998). The statistical analyses of Discrete-Response CV DATA. Departament of Agricultural and Resource Economics and Policy Division of Agricultural and Natural Resources, University of California at Berkeley.
- [30] Holt, G., & Amilien, V. (2007). From Local food to localised food. Antropology of Food (S2).

- [31] Hu, W., Woods Timothy, Bastin, S., Cox, L., & You, W. (2011). Assesing Consumer wilingness to pay for value added blueberry products using a payment card survey. Southern Agricultural Economics Association, 43(2), 243–258
- [32] Imami, D., Chan-Halbrendt, C., Zhang, Q., & Zhllima, E. (2011). Conjoint analyses of consumer preferences for lamb meat in central and southwest urban Albania. International Food and Agribusiness Management, 14(3).
- [33] Imami, D., Shkreli, E., Chan-Halbrendt, C., Zhllima, E., Canavari, M., & Alban, C. (2014). Analysis of consumers' preferences for traditional local cheese in Albania applying conjoint analyses. In Agribusiness and Food World Forum (p. 7). Cape Town, South Africa: IFAMA. Retrieved from http://www.ifama.org/files/conf/papers/1041.pdf
- [34] Iraizoz, B., Gorton, M., & Davidova, S. (2007). Segmenting farms for analysing agricultural trajectories: a case study of the Navarra region in Spain. Agricultural Systems, 93, 143–169.
- [35] Ittersum, K. van. (2001). The role of region of origin in Consumer Decision Making and Choice. Retrieved from http://edepot.wur.nl/82514
- [36] Ittersum, K. van, Candel, M. J. J. M., & Meulenberg, M. (2003). The influence fo the image of a product's region of origin on product evaluation. Journal of Bussiness Research, 56, 215–226.
- [37] Kim, R., & Boyd, M. (2004). Identification of Niche Market for Hanwoo Beef: Understanding Korean Consumer Preferences for Beef using Market Segment analyses. International Food and Agribusinnes Management, 7(3).
- [38] Kobrich, C., T, R., & M, K. (2003). Typification of Farming systems for constructing representative farm models: two illustrations of the application of multivariate analyses in Chile and Pakistan. Agricultural Systems, 76(1), 151–157.
- [39] Kokthi, E. (2008). Diagnostic des produits locaux dans la zone te Permet (Albanie). Institut Agronomique de Montpellier, France.
- [40] Lange, C., Martin C., Chabanet C., Combris P., & Issanchou S. (2002). Impact of information provided to consumer on their willingness to pay for Champagne: comparison with hedonic scores. Food Quality and Preference, (13), 597–608.
- [41] Lobb E, A., & Mazzochi, M. (2006). The country of origin of food: Consumer perception of safety and the issue of trust. In Paper presented for presentation at 99 EAAE. Germany.
- [42] Loureiro, M. L., & Hine, S. (2002). Discovering Niche Markets: A comparison of consumer willingness to pay for a local, organic, and GMO-free product. Journal of Agricultural and Applied Economics.
- [43] Loureiro, M. L., & Umberger, W. J. (2004). A choice experiment model for beef attributes: US Consumers' Relative Value of Food Safety, Country of origin labeling traceability and tenderness. Presented at the In selected paper presented at the American Agricultural Economics Association Annual Meetings, Denver, CO.
- [44] Loureiro, M. L., & Umberger, W. J. (2005). Assesing Consumer Preferences for Country of Origin Labeling. Journal of Agricultural and Applied Economics, 37(1), 49–63.
- [45] Mahieu, P. A., Riera, P., & Giergiczny, M. (2012). Determinants of Willingness to pay for water pollution abatement: A point and interval data payment card application. Journal of Environmental Management, (108), 49– 53.
- [46] Menapace, L., Colson, G., Grebitus, C., & Facendola, M. (2009). Consumer preferences for country-of-origin, geographical indication, and protected designation of origin labels (No.13122).
- [47] Misra, S. K., Huang, C. L., & Ott, S. L. (1991). Consumer willingness to pay for pesticide free fresh produce. Western Journal of Agricultural Economics.
- [48] Moi, E., & Sarstedt, M. (2011). A Concise Guide to Market Research: The Process, Data, and Methods Using Ibm Statistics. Berlin Heidelberg: Springer-Verlag.
- [49] Padilla, C., VillaLobos, P., & Henry, G. (2005). Consumer preferences and willingness to pay for traditional food products in Chile, Conjoint Analyse.
- [50] Philippidis, G., Kakarouglou, I., & Sanjuan, A. I. (2002). Territorial Product Associations in Greece The Case of Olive Oil. Journal of International Food and Agribusiness Marketing, 14(1), 25–46.
- [51] Portney Paul R. (1994). The Contingent Valuation Debate: Why Economist Should Care, 8(4), 3–17.
- [52] Quagrainie, K. K., Unterschultz, J., & Veeman, M. (1998). Effect of Product Origin and Selected Demographics on Consumer Choice of Red Meat. Canadian Journal of Agricultural Economics, 46, 201–219.
- [53] Resano, H., Sanjuan, A., & Albisu M, L. (2012). Consumer Response to the EU Quality policy allowing for heterogeneous preferences. Food Policy, (37), 355–365.
- [54] Sànchez, M., Beriain, M., & Carr, T. (2012). Socio-economic factors affecting consumer behaviour for United States and Spanish beef under different information scenarios. Food Quality and Preference, 24(1), 30–39.
- [55] Schifferstein H. (2001). Effects of Products Beliefs on Product Perception and Liking. In Food, People and Society a Europian Perspective of Consumer Choices (pp. 73–96).
- [56] Solano, Leon, C., Perez, E., & Herrero, M. (2003). The role of personal information sources on the decision making process of Costa Rican dairy farmers. Agricultural Systems, 76, 3–18.
- [57] Spence, A., & Townsend, E. (2006). Examining consumer behavior toward genetically modified (GM) food in Britain. Risk Analysis, 26(3), 657–670.

- [58] Stefani, G., Romano, D., & Cavicchi, A. (2006). Consumer Expectations, Liking and Willingness to Pay for Specialty Foods: Do Sensory Characteristics Tell the Whole Story? Food Quality and Preference, (17), 53–62.
- [59] Steven, J. (2002). Applied multivariate statistics for social science (4th ed.). Mahwah.
- [60] Stolzenbach, S., Bredie, W., & Byrne, D. (2013). Consumer Concept in New Product Development of Local Food Traditional Versus Novel Honeys. Food Research International, (52), 144–152.
- [61] Stolzenbach, S., Bredie, W., Christensen, R., & Byrne, D. (2013). Impact of Product Information and Repetead Exposure on Consumer Liking, sensory Perception and Concept Associations of Local Apple Juice. Food Research International, (52), 91–98.
- [62] Tian, X., Yu, X., & Holst, R. (2011). Aplying the payment card approach to estimate the wtp for green food in china.
- [63] Veale, R., Quester, P., & Karunaratna, A. (2006). The role of intrinsic cues sensory and the extrinsic cues of country of origin and price on food product evaluation. In In 3rd International Wine Businnes and Marketing Research Conference, Refereed Paper (pp. 6–8). Montpellier.
- [64] Verleigh, P. W. . (2001). Country of Origin Effects on Consumer Product Evaluations.
- [65] Verleigh, P. W. ., & Steenkamp, J.-B. E. . (1999). A review and meta analysis of country of origin research. Journal of Economic Psychology, (20), 521–546.