

Consumers' Purchasing Behaviour Patterns Regarding Organic Wine in a Southern E.U. Country

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Abstract. This paper aims to explore the consumers buying behaviour towards organic wine in Southern Europe and more precisely in Greece. The study attempts to compare its results with other studies concerning Northern European Consumers' attitudes shedding light in potential differences. Field interviews conducted in a randomly selected sample consisted of 510 consumers in November and December of 2013, were analyzed by employing multivariate statistical analysis. Principal components analysis (PCA) was conducted to identify the factors affecting people in preferring consuming organic wine. Cluster techniques employed to classify consumers with similar buying behaviour and identified three groups of consumers: the "conscious" consumers, the "curious" consumers, and the "opportunists". Discriminant analysis was performed to assess how the identified factors derived from PCA could predict cluster membership. Non parametric statistical tests were performed to profile the identified group of consumers regarding their demographic characteristics.

Keywords: Consumer behaviour, Organic wine, Consumer preferences

1 Introduction

1.1 Issue Under Study

Niche marketing has become the focus of many studies that examine consumers' acceptance of value added or differentiated products. Regarding food selection, consumers' behaviour and decision-making process is affected by numerous factors, such as: food quality characteristics, diet and health issues, price, governmental

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actions, cultural factors, distribution channels, etc (Tsourgiannis 2008). Additionally, religious prohibitions, cultural beliefs and counterculture attitudes have a significant influence on consumers purchasing decisions towards food products together with the social characteristics of the consumers (Lazaridis 2003).

In this framework the current study examines such a product; that is, organic wine, aiming to explore consumers purchasing behaviour patterns in Southern Europe and particularly in Greece. Most of the knowledge about the consumers attitudes regarding organic wine in Southern Europe mainly is derived from a limited number of studies conducted before the current economic crisis. Thus, the examination of the factors that affect the buying behaviour of South European consumers towards organic wine amidst the period of economic depression is very important and fills a gap in the relevant literature. More specifically, the study aims to identify the factors that affect consumers' purchasing behaviour and classify them into groups with similar behaviour as well as to profile each group of consumers regarding their demographic characteristics. Further, the study aims to compare its results with other studies concerning Northern European consumers' attitudes and shed light in potential differences.

1.2 Literature Review

Consumers, especially in Europe where food safety crises struck hardest, have partially lost their confidence towards many conventional farming products. Such a product is wine, according to Loureiro (2003) in the wine market, environmental quality perceptions seem to play a critical role in consumers' preferences. Many empirical studies examined the factors explaining organic food behaviour and profile and differentiate the organic consumer from the non organic one. Thompson and Kidwell (1998) found that families with children were more likely to buy organic food. Aertsens et. al. (2009) argued that health related to value security and taste related to hedonism can play an important role in determining organic food purchases. Environment and nature protection as well as animal welfare also motivate people in buying organic food (Aertsens et. al. 2009). Furthermore, a great deal of attention has been devoted to the design characteristics of the wine bottle (Mann et al, 2012).

While most consumers hold positive attitudes towards organic food the proportion of consumers purchasing organic food on a regular basis remains low, with market shares of organic products in European countries, being quite low in some Southern Central and Eastern European countries and quite high in Austria and Denmark (Aertsens, et.al 2009). Consumers are becoming more aware of quality issues linked to health, taste, environmental and ethical concerns (Ness et. al.2010). Moreover European consumers regarding organic market can be classified into established consumers, emerging consumers and non-consumers and therefore while there is a healthy market for organic food, purchasing patterns are not stable as consumers switch between purchase –frequent categories. Furthermore, organic shoppers have responded to the recent economic crisis by shopping less often, purchasing fewer premium products and switching to quality low-input food (Ness et. al.2010).

Consumers in Southern European Countries are influenced by the Mediterranean dietary patterns (Balanza et. al. 2007). More particular, Mediterranean consumers have developed a drinking culture according to which the sole use-value of alcohol is that of a nutrient. In other words, alcohol (mainly wine) is mostly drunk in connection with meals for its nutritional and gastronomic properties (Makela et. al. 2006); though, young people start following new wine consumption patterns, (Barena and Sanchez, 2009). On the other hand, Northern and Central European consumers are more influenced by the western diet that is rich in animal fat and protein and low in complex carbohydrates (Panza et al 2004) and their average volume of drinking is higher than in Southern Europe (Rehm et. al. 2003).

Studies conducted in Southern EU countries examined consumers' attitudes towards wine and organic wine purchases and indicated that these consumers pay attention to the quality of the wine, price, nutritional information on food labels, confidence in food quality controls made by authorities and private companies, health and diet issues, absence harmful substances, visual attractiveness of the product, influence of recommendations, presentation, publicity and previous knowledge (Crescimanno et. al. 2002; Fotopoulos et. al. 2003; Radman 2005; Barreiro-Hurle et al. 2007; Bernabeu et al. 2008; Kuhar and Juvancic 2010). They are also influenced in their buying decision towards organic wine by their age, household size, income, education (Crescimanno et. al. 2002; Chryssohoidis and Krystallis, 2005; Radman 2005; Tsakiridou et. al. 2006; Krystallis et. al. 2006).

The identification of the motives of Northern European consumers to buy organic food as well as the comparison of these motives with the motives of Southern European consumers, was the aim of a number of studies. In particular Northern and Western European consumers are influenced by the appearance, taste, eating experience, price, nutritional value, value for money, shelf life, keeping quality, origin of the wine, production system, colour of the wine, perceived status image, perceived satisfaction and perceived value; health and environment issues as well as by ecological motives (Fotopoulos and Krystallis 2002; Honkanen et. al, 2006; Adamsen et al., 2007; De Magistris and Gracia, 2008; Janssen et al. 2009; Ness et al. 2010; Mann et al., 2012;).

Many consumer behaviour theories and models have developed the last decades to examine issues as above. The food-related lifestyle (FRL) has been proposed as a mediator between and behaviour (Brunso & Grunert, 1995; Brunso et al., 2004a; Brunso et al., 2004b; Grunert, et. al., 1997; Scholderer, et. al., 2002). Attitude and decision making research has examined what might be considered "cold" and "hot" aspects of consumer behaviour (Simonson et al. 2001). Social recognition and Behavioural Decision Theory (BDT) in consumer research have tended to build on different underlying models of buyer behaviour and the communication process (Simonson et al. 2001). Furthermore, according to the Theory of Reasoned Action (TRA) people consider implications of their actions before they involved in a given behaviour (Ajzen and Fishbein 1980). Therefore, as Papista and Krystallis (2012) argued, people form intentions to perform behaviours that are intercepted by persons attitudes towards that behaviour and social norms. As this model criticized that failed to support the connection between intention and behaviour (Gupta and Ogden, 2009); Ajzen (1991) developed the Theory of Planned Behaviour (TRB) which argues that the intention of a person to perform an action is the most important immediate

determinant of the action. This theory found application and in consumers' decision making process and buying behaviour regarding sustainable food consumption (Aertsens et. al. 2009; Arvola et. al. 2008; Toulouse et. al. 2006; Vermeir and Verbeke 2008).

On the other hand, the above mentioned consumer behaviour theories and models do not take into consideration all the intrinsic and extrinsic characteristics and values, marketing mix issues and demographic characteristics in exploring the factors that affect consumers purchasing behaviour but each theory and model some of them. Therefore, a conceptual model was developed in the current study to place the intrinsic and extrinsic characteristics and values, marketing mix issues and demographic characteristics outlined in the literature into an identifiable framework (Figure 1).

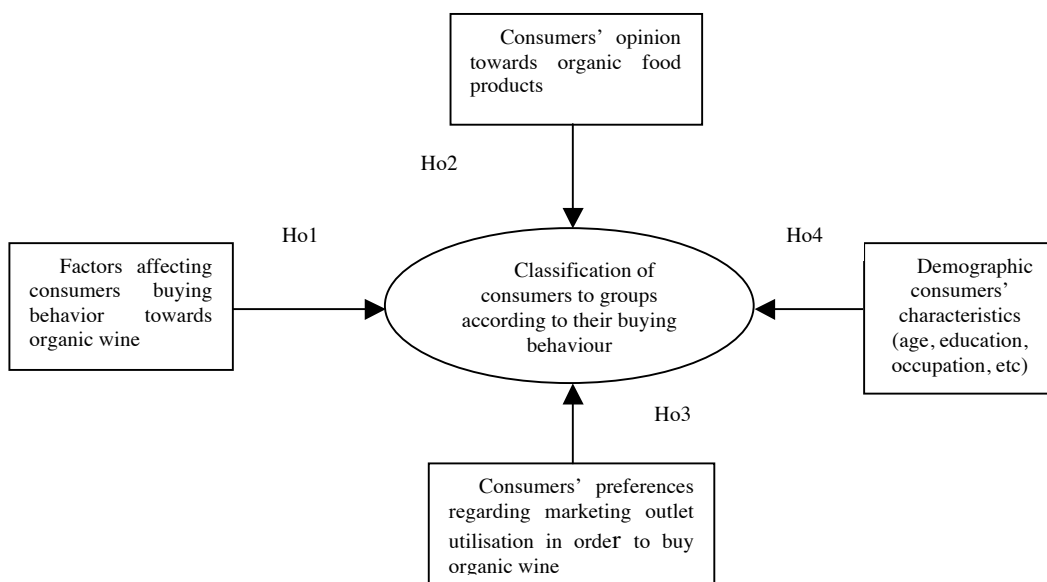


Fig. 1. The Conceptual Model

The research null hypotheses that this study tests according to the conceptual model below are the followings: **Ho1**, consumers in Greece cannot be classified into groups according to the factors that affect their purchasing behaviour towards organic wine. **Ho2**, consumers' opinion about the organic food products is not significantly related to particular purchasing behaviour. **Ho3**, consumers' purchasing behaviour towards organic wine is not significantly related to their preferences regarding the utilisation of a particular marketing outlet. **Ho4**, consumers' purchasing behaviour towards organic wine is not significantly related to their demographic characteristics.

In the introductory section above the current study presented the topic under examination, the gaps in the literature and its aims and a comprehensive literature review on organic food products consumers' perceptions along with a comparison of

the differences between Southern and Northern Europe consumers. The applied methodology is analysed in the next section with a brief presentation of the survey procedure; the results are presented next analytically following the research questions and in the end conclusions are discussed.

2 Applied Methodology

2.1 Survey Procedure

The survey of the study addressed to a sample of consumers in order to gather data necessary to identify the factors that affect consumers buying behaviour towards organic wine, in Greece. Hence, the research focuses on a sample of Greek consumers, purchasers of organic food products. Information were gathered through an interview survey as the consumers are familiar with this kind of research and their educational level is suitable for the use of this kind of survey method (Oppenheim 2000). Additionally, the cost of conducting large postal or telephone survey to develop a typology was considered prohibitive. Furthermore, as many consumers do not have an Internet access, the electronic survey method was not suitable for surveying a representative to a general population sample.

Cluster sampling method used to form the sample. In particular the general population is stratified into two levels: regions and prefectures. Initially based on the methodology presented by Oppenheim (2000), from the 13 regions exist in Greece 11 regions selected at random order to have a more representative sample from the geographical point of view. In the second stage 1 prefecture from each region selected at random. Finally, a random systematic sampling was used to form the sample of 50 consumers in each prefecture and more particular in the capital of each chosen prefecture where shopping malls, supermarkets and market exist by taking every sixth person that came on site (McCluskey et. al., 2003). As Errington (1985) argued the only way in which this can be achieved is to ensure that the units for survey are selected at random from the larger population about which generalizations are to be made. The productive sample consists of 510 consumers that would be reasonably representative of some larger population about which useful generalization could be made. The size of the sample is considered reasonable regarding the total population of the area as this size of samples were mostly used by other researchers in Greece regarding consumer behaviour towards food purchases (Tzimitra-Kalogianni et.al.1999; Botonaki and Tsakiridou, 2004; Tsakiridou et al. 2008).

An effort was made to reach consumers at the same time and place where actual purchase decisions are made hoping to better elicit consumers' true preferences about the products. Interviews took place throughout the day to reduce time of shopping related bias (Krystallis and Chrysohoidis, 2005). Hence, one quarter (25%) of the interviews were conducted between 9:00 – 15:00 during the week (Monday – Friday), one quarter between 15:00 – 21:00 during the week and 50% during

Saturday (9:00 – 19:00). This survey methodology developed according to the results of the pilot survey into which the respondents indicated the day and time they make their shopping.

The representativeness of the sample immunized by checking the proportion of the consumers of the sample who declared that bought organic food with those of the pilot survey. In particular, the proportion of consumers (p) in the pilot survey who indicated that bought organic wine at least once is 92%. Therefore in order to achieve a representative sample the sample size should be 265 consumers (in order have $z=3$ and $d=5\%$). As the researchers decided to a sample size 550 consumers (about two times more than what was needed) in order to have similar size samples with other surveys presented above, and the proportion of consumers who bought at least one time local food in this sample is about 92% (510 consumers), the sample is considered representative.

2.2 Questionnaire design

Factors that affect the consumers' behaviour towards organic wine were identified by the researchers after searching the literature. Furthermore they designed a questionnaire in order to meet the research objectives and pre-tested it in academics, food marketing experts and consumers. In the next stage the questionnaire was piloted in October of 2013 to 100 consumers. The pilot survey indicated that no modification needed to the questionnaire and therefore the main survey was conducted in November and December of 2013 as mentioned above.

2.3 Statistical Methodology

Multivariate analysis techniques were used to the 510 consumers that buy organic wine to reveal the key information contained in the responses, and these analyses were applied in three stages. First, principal component analysis (PCA) was used to identify the variables that accounted for the maximum amount of variance within the data in terms of the smallest number of uncorrelated variables (components). The anti-image correlation matrix was used as well as Bartlett's test of sphericity and measure of sampling adequacy (MSA) in order to check the appropriateness of the data for subsequent factor analysis. The variables that had a high proportion of large absolute values of anti-image correlations as well as MSA less than 0.5 were removed before analysis. In this study, PCA reduced the key attitude variables, which relate to various aspects of consumers behaviour towards organic wine, to a smaller set of underlying factors (or consumption dimensions). An orthogonal rotation (varimax method) was conducted and the standard criteria of eigenvalue=1, scree test and percentage of variance were used in order to determine the factors in the first rotation (Hair et al. 2010). Different trial rotations followed where factor interpretability was compared. These factor scores were then subjected to cluster analysis to group consumers with similar patterns of scores into similar clusters based on their buying behaviour. In this study, both hierarchical and non-hierarchical methods were used according to the recommendations of Hair et al. (2010) and

Karelakis et al. (2011) in order to develop a typology of the consumers' buying behaviour. A non-parametric Kruskal–Wallis one way ANOVA was conducted to validate the cluster solutions by examining if variables not used in cluster analysis differ significantly among the identified clusters.

Quadratic discriminant analysis was performed to assess how accurately the identified key consumption dimensions that were derived from the factor analysis could predict and discriminate cluster membership. Statistical tests based on the outcomes of the multivariate statistical techniques presented above (factor, cluster and discriminant analysis) were used to test the four hypotheses presented in previous section.

3 Results

3.1 Consumers' buying behaviour and attitudes towards organic wine.

Principal components and factor analyses (through a varimax rotation) were conducted to identify the key consumption preference variables, and the latent root criterion (eigenvalue =1), the scree plot test and the percentage of variance were used to determine the number of factors (Table 1). Several different trial rotations were conducted to compare factor interpretability as suggested by Tabachnick and Fidell (1989) and Hair et al (1998).

Table 1: Results of Principal Component Analysis regarding Consumers buying attitudes

Component	Eigenvalue	%Variance	%Cumulative variance	Variables	Communalities
1	2.271	37.842	37.842	V1 - Environment protection	0.630
2	1.402	23.366	61.208	V2 – Nutritional Value	0.586
3	0.736	12.272	73.480	V3 – Absence of Chemical Ingredients	0.592
4	0.629	10.475	83.955	V4-Quriosity	0.684
5	0.505	8.418	92.374	V5-Prestige	0.691
6	0.458	7.626	100.00	V6-Health protection	0.502

KMO MSA = 0.682, Bartlett test of Sphericity = 545.352, P <0.001

PCA identified two factors that affect consumers' preferences towards organic wine (Table 2).

Table 2. Main Factors affecting consumers preferences towards organic wine

KEY CONSUMPTION DIMENSIONS	Factor Loadings
Health Safety	
Environment protection	0.793
Absence of Chemical Ingredients	0.766
Nutritional Value	0.762
Health protection	0.659
Prestige and Curiosity	
Prestige	0.829
Curiosity	0.827

In the next stage, hierarchical and non-hierarchical clustering methods were used to develop a typology of the buying behaviour of the consumers in Greece (Helsen and Green, 1991 and Hair et al., 2010). Cluster analysis was conducted on the 510 observations, as there were no outliers. It identified three groups of consumers that were named according to their buying behaviour patterns towards organic wine (Table 3).

These are: (a) the “**curious**” consumers, (b) opportunists and (c) the “conscious” consumers. In particular, the “curious” consumers comprise the 19% of the sample and are mainly influenced in their buying decisions towards organic wine only by prestige and curiosity. Some other factors that influence them in this purchasing decision are the absence of chemicals additives, nutritional value of the products and the environmental impact of the production process of the product. On the other hand, the “**opportunists**” consists of the 26% of the sample. These consumers although they purchase organic wine they are not influenced by any particular factor. The “**conscious**” consumers comprise 55% of the sample. These consumers are interested in buying products with no chemical additives. Furthermore, the environmental consequences of the product as well as the nutrition value of the product are also some factors that affect consumers buying behaviour. Hence they buy organic wine consciously as they consider it healthier and environmental friendly.

Table 3. Characteristics of the Three Consumers' Groups

Key Consumption Dimensions	“Curious” Consumers	“Opportunists” Consumers	“Conscious” Consumers	P
Health safety	0.34501	-1.36372	0.52825	0.0001
Prestige and curiosity	1.58335	-0.20174	-0.45269	0.0001
Number of consumers (n=510)	97	133	280	

Furthermore these three groups of consumers were validated using Kruskal – Wallis non-parametric one-way ANOVA with four (4) consumption variables describing the way they buy organic wine and were not used in factor analysis; as this test is more robust in cases of ordinal data (Kinnear and Gray 2000). As Table 4 illustrates the three identified consumers groups found to good validity as the examined variables are significant associated with consumers' buying behaviour towards organic wine. In particular the **“Conscious”** consumers in comparison with the **“curious”** consumers are more affected in their organic wine purchasing decision by the quality, taste and advertisement of the product, whilst the **“curious”** consumers pay more attention to the topicality of the product.

Table 4. Miscellaneous Characteristics of the Three Consumers Groups according to Kruskal–Wallis test

Miscellaneous Characteristics	“Curious” Consumers	“Opportunists” Consumers	“Conscious” Consumers	P
Quality	267.2 ^a	172.0 ^a	291.10 ^a	0.0001
Taste	274.7 ^a	169.8 ^a	289.6 ^a	0.0001
Topicality	327.7 ^a	191.1 ^a	261.10 ^a	0.001
Advertisement	140.8 ^a	128.6 ^a	150.8 ^a	0.001
Number of consumers (n=510)	97	133	280	

NB: Average ranks with similar superscripts among groups per line (characteristic) differ at P<0.05

Moreover discriminant analysis was conducted to evaluate the prediction of group membership by the predictors derived from the factor analysis. Initially the normality of the key strategic dimensions was checked. The Box's M test statistic (Box M= 95.053 approx F= 15.730 df =6 P<0.001) indicated that the variance – covariance matrices were violated. The summary of the cross validation classification derived by the quadratic discriminant analysis is shown in Table 5.

Table 5 Summary of Classification with Cross - validation

Actual Classification	Predicted Classification		
	“Curious” Consumers	“Opportunists” Consumers	“Conscious” Consumers
“Curious” Consumers	97	0	3
“Opportunists” Consumers	0	133	21
“Conscious” Consumers	0	0	256
Total N	97	133	280
N correct	97	133	256
Proportion of Correct Classification	100%	100%	91.4%
N=510	N correct = 486		Proportion Correct =95.3%

Thus, the two consumption dimensions could accurately predict and discriminate consumers’ group membership.

Therefore, the hypothesis **H₀₁**: *Consumers in Greece cannot be classified into groups according to the factors that affect their purchasing behaviour towards organic wine* may be rejected.

3.2 Consumers Opinion Towards Organic Food Products

In the next stage, nominal logistic regression analysis was performed to in order to identify the main opinion of each group of consumers towards organic products. In particular, the analysis indicated (Table 6) that “opportunists” contrary to the “conscious” consumers although they believe that organic food have better quality and more nutritional value than conventional, these attitudes do not influence them positively in their shopping towards organic food. On the other hand, most of the “curious” consumers in comparison with the “conscious” although they believe that conventional food in general are better than organic they consider organic food tastier than conventional. Besides, their attitudes that organic food products are more expensive than conventional influence them negatively in their purchasing decision in comparison with the “conscious” consumers.

Table 6. Consumers' opinion about organic products

	Predictors	Coef	P	Odds ratio
Opportunists/Conscious	Constant	5.562	0.001	
	Conventional food products are better than organic	0.2721	0.050	1.31
	Organic food products are tastier	0.0252	0.884	1.03
	Organic food products have better quality	-0.7156	0.001	0.49
	Organic food products are healthier	0.2412	0.222	1.27
	Organic food products are more expensive	0.0087	0.956	0.99
	Organic food products have more nutritional value	-0.4777	0.005	0.62
	Organic food products do not have negative impact on the environment	-0.9199	0.001	0.40
Curious/Conscious	Constant	0.165	0.889	
	Conventional food products are better than organic	0.2906	0.026	1.34
	Organic food products are tastier	0.4548	0.006	1.58
	Organic food products have better quality	-0.0726	0.731	0.93
	Organic food products are healthier	-0.3000	0.157	0.74
	Organic food products are more expensive	-0.3619	0.011	0.70
	Organic food products have more nutritional value	0.0851	0.639	1.09
	Organic food products do not have negative impact on the environment	-0.1459	0.294	0.86
	Log-likelihood = -417.657			
	G=179.976; DF=14; P<0.001			

Thus hypothesis, **H₀₂**: Consumers' opinion about the organic food products is not significant related to particular purchasing behaviour maybe rejected.

3.3 Consumers' Marketing Channel Utilisation regarding organic wine purchases

The researchers in their effort to explore which marketing outlet the consumers of each group usually prefer conducted the chi-square analysis. According to the results of the test (Table 7) the consumers of all the three groups have similar behaviour

regarding the marketing outlets they use in order to buy organic wine . In particular most of them usually buy organic wine from wine cellars.

Table 7. Consumers’ marketing channel utilisation regarding organic wine

Marketing channels	“Curious” Consumers		“Opportunists” Consumers		“Conscious” Consumers	
Wine Cellars	(x ² =43.63, df=2, P<0.001)	64.9% ^a	(x ² =15.535, df=2, P<0.05)	46.6% ^b	(x ² =115.340, df=2, P<0.001)	62.5% ^a
Special Shops that sell Organic Food		17.6% ^c		34.6% ^b		11.8% ^a
Supermarkets		17.5% ^c		18.8% ^a		25.7% ^b

^aP<0.001, ^bP<0.01, ^cP<0.05 and n.s P>0.05

Hence, the hypothesis *Ho3 Consumers’ purchasing behaviour towards organic wine is not significantly related to their preferences regarding the utilisation of a particular marketing outlet* maybe rejected.

3.4 Profiling each consumer group according to consumers’ demographic characteristics.

A chi-square analysis was also performed for each consumer group in order to develop the profile of the consumers who have a particular buying behaviour towards organic wine regarding their demographic characteristics. As Table 8 indicates most of the “curious” consumers are between 30-44 years old, hold a bachelor degree, have 1-2 children and work as private employees or as civil servants. On the other hand, most of the “opportunists” consumers are between 30-44 years old, hold a high school of a bachelor degree, do not have children and are free licensed. Furthermore, the majority of the “conscious” consumers are between 30-44 years old, hold a university degree, are married with 1-2 kids and work as free licensed.

Table 8. Consumers' profile regarding demographic characteristics.

Marketing channels		“Curious” Consumers		“Opportunists” Consumers		“Conscious” Consumers	
Age	20-29 years	(x ² =40.031, df=3 P<0.001)	23.7% ^{n.s}	(x ² =48.732, df=3 P<0.001)	25.6% ^{n.s}	(x ² =96.486, df=3 P<0.001)	17.9% ^a
	30-44 years		48.5% ^c		48.1% ^c		46.1% ^c
	45-64 years		24.7% ^{n.s}		20.3% ^{n.s}		29.6% ^{n.s}
	>65 years		3.1% ^c		6.0% ^c		6.4% ^c
Education	Primary School	(x ² =7.485, df=4 P<0.001)	11.3% ^{n.s}	(x ² =9.143, df=4 P<0.001)	14.3% ^{n.s}	(x ² =36.143, df=4 P<0.001)	9.6% ^c
	Secondary School		13.4% ^{n.s}		11.3% ^a		12.1% ^b
	High School		27.8% ^{n.s}		33.1% ^c		38.2% ^c
	Bachelor degree		37.1% ^c		33.1% ^c		35.4% ^c
	Postgraduate degree		10.3% ^a		8.3% ^b		4.6% ^c
Marital Status	Not Married	n.s.	41.2% ^{n.s}	n.s.	42.1% ^{n.s}	(x ² =4.914, df=1 P<0.001)	27.9% ^c
	Married		58.8% ^{n.s}		57.9% ^{n.s}		72.1% ^c
Number of Children	No children	(x ² =8.317, df=2 P<0.05)	39.2% ^{n.s}	(x ² =1.905, df=2 P<0.001)	44.4% ^a	(x ² =02.762, df=2 P<0.001)	28.9% ^{n.s}
	1-2 children		41.2% ^{n.s}		41.4% ^{n.s}		59.6% ^c
	+3 children		19.6% ^a		14.3% ^c		10.7% ^c
Occupation	Private employee	(x ² =4.523, df=6 P<0.001)	24.7% ^b	(x ² =7.053, df=6 P<0.001)	27.1% ^c	(x ² =5.350, df=6 P<0.001)	20.4% ^b
	Civil Servant		24.7% ^b		15.0% ^{n.s}		21.8% ^c
	Free Licensed		15.5% ^{n.s}		29.3% ^c		22.5% ^c
	Retiree		5.2% ^a		6.8% ^a		10.0% ^{n.s}
	Student		9.3% ^{n.s}		10.5% ^{n.s}		17.5% ^b
	Unemployed		9.3% ^{n.s}		4.5% ^b		8.9% ^a
	Other		11.3% ^{n.s}		6.8% ^c		8.9% ^a

^aP<0.001, ^bP<0.01, ^cP<0.05 and n.s P>0.05

Therefore the hypothesis ***Ho4: Consumers' purchasing behaviour towards organic wine is not significantly related to their demographic characteristics*** maybe rejected.

4 Discussion - Conclusions

This study provides, from a theoretical perspective, evidence on factors that influence the intention to purchase organic wine, extending evidence to European consumers and give useful information to local policy makers to promote the future development of the demand for organic wine in a Southern E.U. Country. Results indicated that there was a significant association between the adoption of a buying behaviour and the factors, opinions and personal characteristics that influence them to choose organic wine.

It was also found that the consumers who prefer to buy organic wine wittingly consider it healthier, with no chemical ingredients, with no negative impact on the environment, tastier and with better quality in comparison with the conventional products. "Curious" consumers on the other hand consider the organic wine healthier and with no chemical ingredients and no negative impact on the environment than the conventional. They also pay attention in product's topicality but they are mainly influenced in their purchasing decision towards organic wine by their curiosity and the prestige they will gain by buying these products. Moreover all the three groups of consumers prefer to buy organic wine from wine cellars. Therefore, this study supports the findings of other studies (Cresimento et al 2003, Radman 2005, Barreiro – Hurlle et al. 2007, Bernabeu et. al. 2008) according to which Southern European consumers are mainly affected in their preferences towards organic wine by health and quality issues. Furthermore this study indicates that existence of a family, occupation and educational level affect consumers' purchasing behaviour towards organic wine and hence supports the findings of Tsakiridou et. al. (2006) and Chrysohoidis and Krystallis (2005).

On the other hand, this study indicates that most of the organic wine consumers in Greece are influenced in their choice by environmental and nutritional issues, whilst these factors do not motivate mainly the Southern European Consumers. This finding suggests that the motives of Greek organic wine consumers are switching and becoming similar to that of North European consumers who mainly buy organic food due to their environmental concern and the nutritional value of the product (Ness et al. 2010, Mann et. al. 2012, Janssen et. al. 2009) maybe because most of the organic wine consumers in Greece who in their vast majority are between 30-44 years old have studied in Northern and Western European Countries. Moreover, the supermarket sector in Greece is dominated by multinational supermarket chains and therefore, the last few years there is availability of organic food including wine in supermarkets except the specialty shops and wine cellars. Hence, even most of the consumers prefer to buy organic food from wine cellars there is about a 18%-25% of consumers who purchase organic food from supermarkets as Northern European consumers usually do.

Moreover, the fact that the mentioned in the literature review consumer behaviour theories and models including the food-related lifestyle (FRL), social cognition and behavioural decision theory (BDT), theory of reasoned action (TRA) and theory of planned behaviour (TRB) (Aertsens et. al. 2009; Ajzen and Fishbein 1985; Ajzen 1991; Arvola et. al. 2008; Brunso & Grunert, 1995; Brunso, et.al.2004a; Brunso, et.al.2004b; Grunert, Brunso, & Bisp,1997; Scholderer, Brunso, & Grunert, 2002, Simonson et al. 2001; Toulouse et. al. 2006; Vermeir and Verbeke 2008) do not take into consideration all the above mentioned attitudes, values and characteristics, supports the validity and novelty of the conceptual model developed and used in this study.

A number of limitations can be identified in this survey with the most important being the followings: a) Some answers in the questionnaire may not represent the true beliefs and attitudes of consumers due to the fact that they are asked in the place and at the time they make their shopping and their time to answer the questionnaire is sometimes limited. Of course this limitation exists in most of consumers preferences surveys. b) The samples in such surveys cannot be quite large due to financial constrains. Though, a larger sample covering the whole country or even better a sample from various Southern EU countries that would provide much accurate results can be the aim of a future study. c) The adopted statistical methodology even it explore the factors that affect consumers' buying behaviour and create a taxonomy of consumers with similar buying behaviour (which is the purpose of the current study) useful for marketing analysis and strategy development cannot measure the demand of a product or determine the importance of the characteristics of a product that affect consumers' behaviour. These measurements can be made with the use of other statistical techniques such as conjoint analysis and contingent valuation, thus a future research employing such techniques may result in more comprehensive and integrated outcomes. Policy makers and relevant stakeholders may found very useful information regarding the demand for such products through the estimation of demand elasticities.

Nevertheless, the value of the current study is incontestable. It is the first study that explores consumers' attitudes towards organic wine in Southern Europe and more particular in Greece during the recent economic crisis. Moreover, consumers' choice processes are no longer based entirely on their knowledge of the product but on their knowledge of themselves (Barena and Sanchez 2009). Therefore, this study provided details on the consumers profile regarding their organic wine purchases and broadens the range of available marketing information and options. From a managerial perspective, according to the results of this study the local producers in Greece should focus on the production of organic wine in order to add value to their products and differentiate them from the products produced in other areas or imported from other countries and launched in very low prices by supermarkets and other retailers. Furthermore, they should structure their marketing and promotion mix and focus on the factors and consumers characteristics presented above. In particular they should target to those interested in health safety and environment protection, in product's taste, nutrition value, quality as well as to those that are influenced by psychological factors such as prestige and curiosity, by health safety issues and the locality of the product. They should certify and label their products as organic and differentiate them according to this quality certification. For

example in Denmark all farmers who sell their products as organic must be authorized. The Plant Directorate inspects farms and Food Directorate inspects processing and Trading (United Nations 2008). Moreover a systematic promotion of the organic food products should be undertaken by all the involved stakeholders within the value chain of the products in order to motivate consumers to prefer such products. The National Organic Agriculture Programme of the Ministry of Agriculture and Livestock (PNAO) in Costa Rica coordinates actions with both supermarkets and farmers' markets to assist in the inclusion of new suppliers to these markets as well as to support financially the promotion of activities such as national fairs and festivals (United Nations 2008). According to the same source, in Denmark the organisation "Organic Denmark" that consists of the main non-profit association for organic farmers, manufactures and consumers has been the main actor in most of the campaigns regarding information, marketing, export and so forth, often in very close cooperation with the main companies and retail stores with organic farming and organic products. This systematic promotion should include advertisement and campaigns organised by the local authorities and consumers organisations and hence they will also comply with E.U. promotion campaign for organic food. The Chilean Association for example was created in 1990 to promote the organic sector in Chile. It has approximately 90 members including farmers, certifiers, traders, consultants, students, professionals and others while it has been recognized as a valid representative for the organic sector by governmental bodies. Furthermore the Ministry of Agriculture in Chile has constituted a group, with public and private actors involved in the organic sector, to coordinate actions for developing organic agriculture (United Nations, 2008). They will also contribute to the Green Economy and the development of niche market products such as the local certified and organic food. Therefore, consumers may spend their money within the framework of the local economy buying local produced products instead of imported and will contribute in this way to the relation of the local economy that suffers so much due to the recent economic crisis. Furthermore, society as a whole, will gain from the growth of organic sector as organic food production creates fewer environmental externalities than conventional food production.

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