



CONSUMERS' PURCHASING BEHAVIOUR PATTERNS REGARDING ORGANIC WINE IN A CONVERGENCE E.U. REGION: THE CASE OF THE REGION OF EAST MACEDONIA AND THRACE IN GREECE .

Dr. Lambros Tsourgiannis, Prof. Anastasios Karasavvoglou
and Dr. Michael Nikolaidis

Entrepreneurial Process of
Discovery in Eastern
Macedonia and Thrace:
Focus Group on Wine,
18-19 November 2014,
Kouros Hotel, Drama





Introduction



- The increasing demand of organic products stems from the food crises that took place the previous decade including the BSE crisis, the foot and mouth outbreak and the dioxin scandals (Siederer et al. 2005).
- In the wine market, environmental quality perceptions seem to play a critical role in consumers' preferences (Loureiro 2003).
- “Organic” in general essentially describes the farming practices used, which refers to a system using organic manure which largely excludes synthetic fertilizers, pesticides, chemicals or growth promoters of any type (Gil et al. 2000).
- “Organic wine” is made from grapes which are not only farmed organically but also processed in accordance with the standards of organic winemaking practices. The maximum level of sulphur dioxide in organic wines is half of other wines (Iland and Gago, 2002)





Willingness to Pay (WTP) for organic wine



- Krystallis and Chrysohoidis (2005) identified that consumers are willing to pay (WTP) a premium price for organic food but the type and magnitude of factors that affect it differ according to the organic food category. These factors include food quality and security, trust in the certification and for some products brand name.
- Botonaki et. al. (2006) found that the WTP for organic products is higher among the consumers who place much importance on health, consume organic fruits/ vegetables and get information about food/nutrition issues from doctors/nutritionists/health institutes and magazines.
- Brugarolas et. al. (2005) identified that the average premium price that people are willing to pay is between 16.29% and 16.92%.



Factors affecting consumers' behaviour towards organic food



- Families with children were more likely to buy organic food (Thompson and Kidwell 1998).
- Some studies suggested that higher income has a positive relationship with the individual's propensity to buy organic products (Kiesel and Villas-Boas 2007; Tsakiridou et. al. 2006). Other studies identified that income does not really affect consumers to purchase organic food products (Adamsen et al. 2007).
- Young consumers are unlikely to consume organic products according to Gil et al. (2000) and Tsakiridou et. al. (2006). On the other hand, Reichs et. al. (1997) argued that the factor "age" significant affect consumers and young consumers in particular to purchase organic food products.
- Krystallis et. al.(2006) found that post graduate and graduates are more likely to buy organic products.
- Size, the existence of young children within the family affects consumers to purchase organic food (Tsakiridou et. al. 2006; Chrysohoidis and Krystallis, 2005).



Aim of the study



To examine which of the factors presented in the literature review affect the attitudes of the consumers to buy organic wine in the Region of East Macedonia and Thrace (REMTH) in Greece because it consists of an elected regional authority and has been designated by the E.U. as Convergence Region.

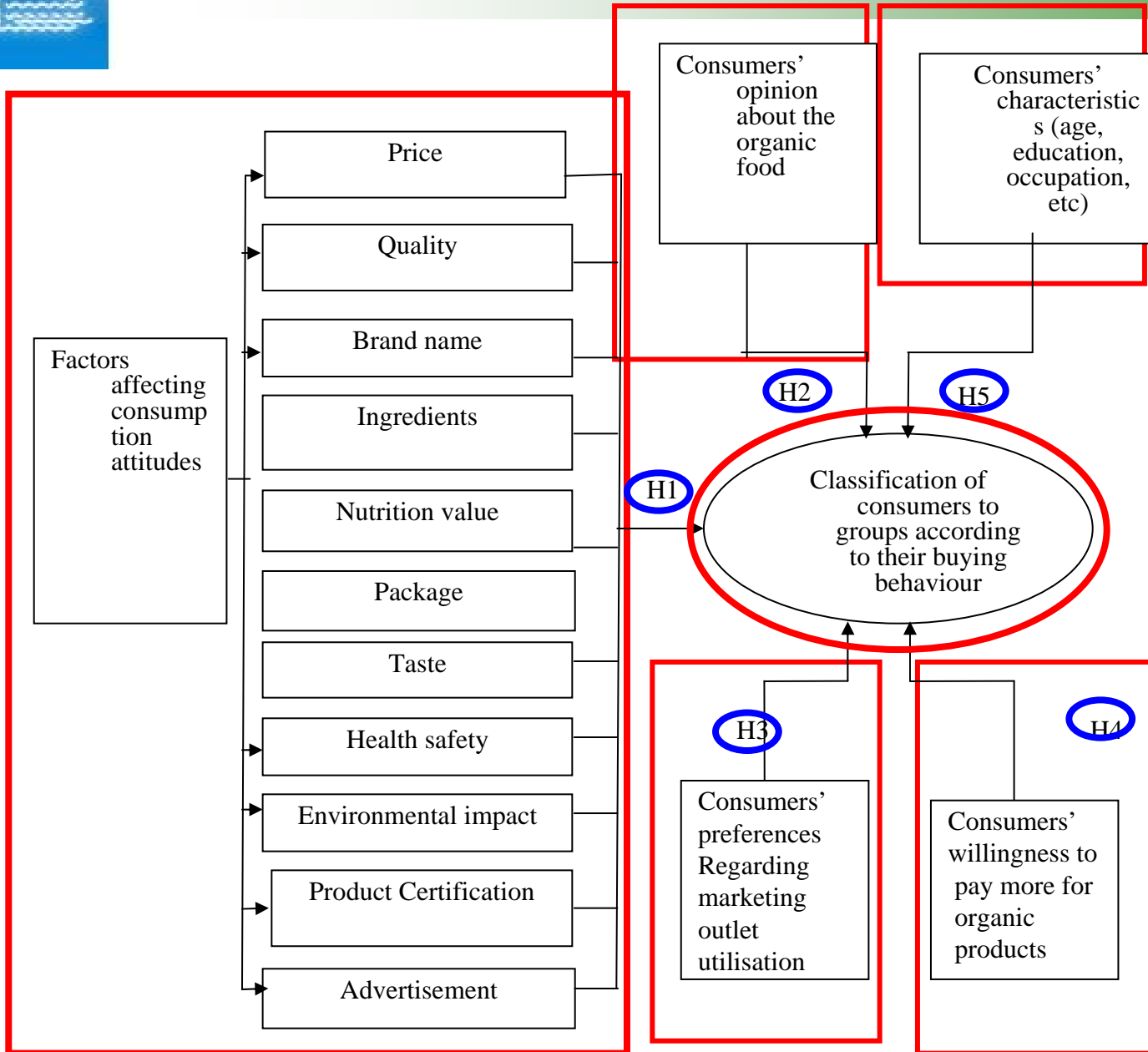
The per capita income in this Region is below the 75% of the average per capita income within E.U.

The examined area is situated in North East part of Greece, is quite isolated for the main urban centres as well as is a border region.

Therefore the development of niche market for local products (such as the certified organic products) will diversify, add value and protect the local production from the imported rival food products.



Conceptual Model





- **Field Interviews:** in a systematic stratified selected sample of consumers were interviewed at the same time and place where actual purchase decisions are made hoping to better elicit consumers' true preferences about the products.
- **Sample framework:** 466621 citizens above 20 years old.
- **Sample:** 511 consumers.

Consumers were selected randomly, with the criterion that the interviewer was to solicit every sixth customer who came into the survey area (McCluskey *et. al.*, 2003).

The sample comprises the 0.11% of the total population and is reasonable representative of them as all the characteristics of the sample do not differ from those of the total population based on Census data.



FACTOR ANALYSIS:

Factor analysis was used to reduce the variables describing the purchase behaviour of the consumers towards organic wine to a smaller set of key consumption dimensions suitable for subsequent statistical analysis.

CLUSTER ANALYSIS:

Cluster analysis to group consumers with similar patterns of factor scores into similar clusters based on their buying behaviour regarding organic wine .

DISCRIMINANT ANALYSIS :

Discriminant analysis was performed to assess how accurately the identified key consumption dimensions that were derived from the factor analysis could predict and discriminate consumer's group membership

FRIEDMAN ONE-WAY NON-PARAMETRIC TEST :

Friedman One Way Non Parametric Test employed to identify the opinion of each consumer group regarding the organic products

CHI SQUARE ANALYSIS:

Chi Square analysis was conducted to profile the consumers of each group regarding their attitudes about organic wine and their personal Characteristics.

Results of Principal Components Analysis in EMTh



KEY CONSUMPTION DIMENSIONS	Factor Loading
Health safety	
Absence of chemical ingredients	0.807
Nutrition value	0.807
Environment protection	0.782
Prestige and curiosity	
Prestige	0.837
Curiosity	0.833

KMO MSA = 0.613

Bartlett test of Sphericity = 398,016, P <0.001

Classification of Consumers regarding their buying behaviour



Key consumption dimensions	Group of Consumers			P
	Consumers influenced by prestige and curiosity	Opportunists consumers	Consumers orientated to buy healthy products	
Health safety	0.379 <i>0.709</i>	-1.614 <i>0.586</i>	0.437 <i>0.499</i>	0.0001
Prestige and curiosity	1.568 <i>0.816</i>	-0.118 <i>0.714</i>	-0.460 <i>0.526</i>	0.0001
Number of Consumers (n=511)	98	106	307	

NB: Means are reported in standard text and standard deviations in italics.

Consumers influenced by prestige and curiosity

- Comprise 19% of the sample.
- They are influenced in their buying decisions by the:
prestige the purchase and consumption of organic wine will provide to them,
curiosity,
topicality,
advertisement,

Opportunists Consumers

- Comprise 21% of the sample.
- They act opportunistically
- They are not interested in any particular of the examined factors

Consumers orientated to buy healthy products

- Comprise 60% of the sample.
- They are interested in buying products with no chemical additives ,
- They pay attention to:
the environmental consequences of the product
nutrition value
quality,
taste and
health protection



Discriminant Analysis



Actual Classification	Predicted Classification		
	Consumers influenced by prestige and curiosity	Opportunists consumers	Consumers orientated to buy healthy products
Consumers influenced by prestige and curiosity	98	0	5
Opportunists consumers	0	106	5
Consumers orientated to buy healthy products	0	0	297
Total N	98	106	307
N Correct	98	106	297
Proportion of Correct Classification	100%	100%	96.7%
N=511	N correct = 501	Proportion Correct = 0.980	

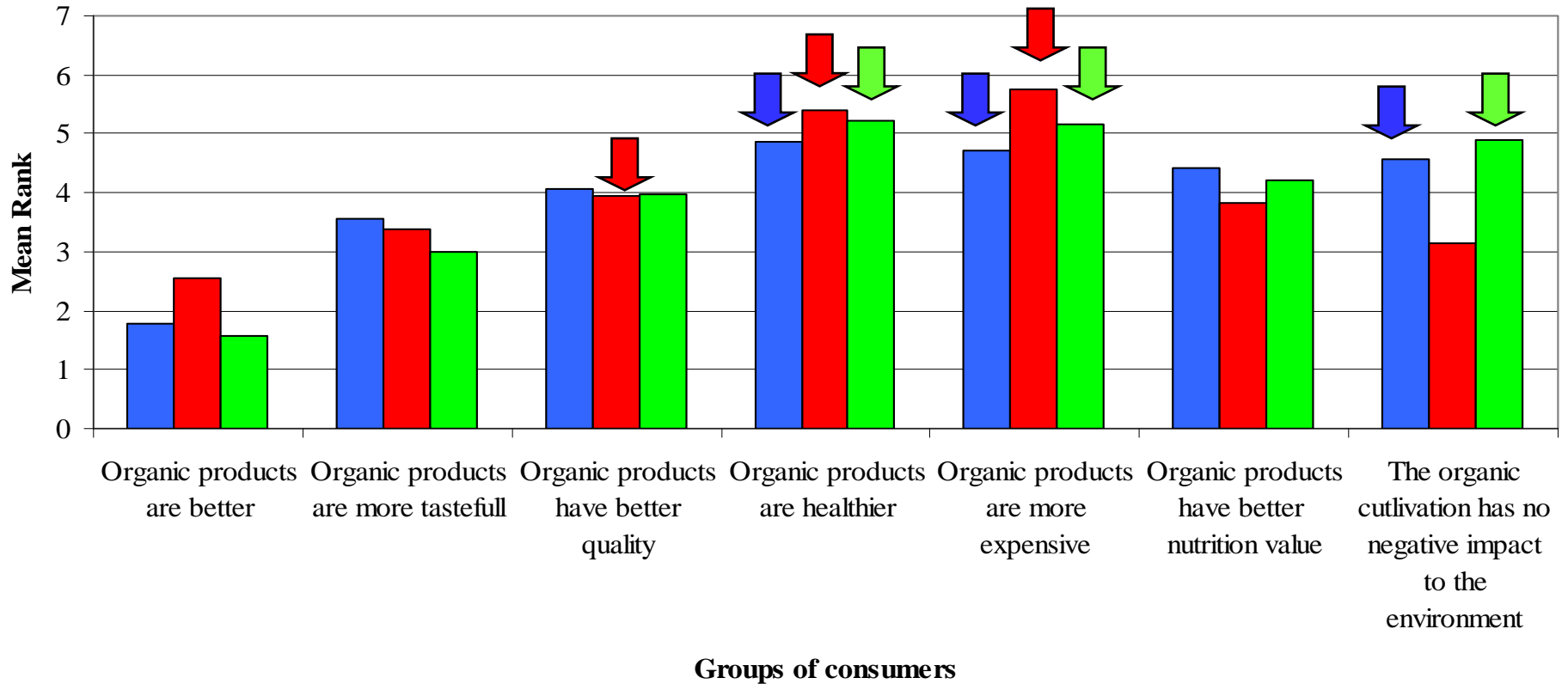
Summary of Classification with Cross - validation



Consumers Opinion Regarding Organic Food



Consumers' opinion about organic products



- Consumers influenced in their buying decision regarding organic wine by prestige and curiosity (chi-square=193.23, df=6, P<0.001)
- Opportunists consumers (chi-square=247.95, df=6, P<0.001)
- Consumers who are orientated to buy healthy products (chi-square=877.96, df=6, P<0.001)



Consumers Attitudes towards Organic Food



Consumers Attitudes	Consumers influenced by prestige and curiosity	Opportunists consumers	Consumers orientated to buy healthy products
Familiar with the definition of organic wine	YES (P<0.001)	YES (P<0.001)	YES (P<0.01)
Organic product preferences except wine	Fruits (P<0.01)	Fruits(P<0.01)	Fruits(P<0.01)
Marketing outlet utilisation	Shops with organic products (P<0.001)	Shops with organic products (P<0.001)	Shops with organic products (P<0.001)
WTP for organic food	5% (P<0.01)	5% (P<0.01)	25% (P<0.001)
WTP for organic wine	5% (P<0.001)	5% (P<0.001)	5% (P<0.001)
Preference of organic products only because their cultivation is more friendly to the environment	n.s	YES (P<0.001)	YES (P<0.001)

Consumers Profile Regarding their Personal Characteristics



Consumers Personal Characteristics	Consumers influenced by prestige and curiosity	Opportunists consumers	Consumers orientated to buy healthy products
Age	30-44 years old (P<0.001)	30-44 years old (P<0.001)	30-44 years old (P<0.001)
Education	TEI/University degree(P<0.001)	TEI/University degree(P<0.001)	High School (P<0.001)
Marital Status	n.s	n.s	Married (P<0.001)
Number of Children	No children (P<0.01)	No children (P<0.001)	2 children (P<0.001)
Occupation	Private or Public Employees (P<0.01)	Free Lincence (P<0.001)	Free Lincence (P<0.001)
Sex	n.s	n.s	Female (P<0.001)



Conclusions



- The consumers who buy organic wine wittingly comprise the 79% of the sample..
- Most of the organic wine consumers are willing to pay up to 5% for organic wine.
- This study indicated that there opportunities for the development of a niche market regarding organic wine in the Region of EMTh.



Conclusions



Local wine producers in the Region of EMTh should focus on the production of certified 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.

They should formulate their marketing and promotion mix and focus on the:

- product certification organic,
- product certification as local or its origin,
- taste,
- environmental impact,
- nutrition value,
- quality,
- health safety,



Conclusions



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.

This systematic promotion should include:

advertisement,
price incentives and
campaigns organized by the local authorities and consumers organizations.

The Region of EMTh should promote and support the development of such niche markets including the production of local and organic food in order the G.R.P. to be increased



Thank you!



Lambros Tsourgiannis (BA, MBA, PhD)

Director

Directorate of Public Health and Social Care

Regional District of Xanthi / Region of Eastern Macedonia and Thrace

Headquarters, Xanthi, PC 67100

Tel. +30 25413 50130

Fax. +30 25413 50132

E-mail: ltsourgiannis@gmail.com

Miscellaneous Characteristics of the Three Consumers' Groups

Key consumption dimensions	Groups of Consumers			P
	Consumers influenced by prestige and curiosity	Opportunists consumers	Consumers orientated to buy healthy products	
Quality of the product	267.70 ^a <i>4.000</i>	167.70 ^b <i>3.500</i>	282.80 ^c <i>4.000</i>	0.0001
Taste	277.20 ^a <i>4.000</i>	151.20 ^b <i>3.000</i>	285.40 ^c <i>4.000</i>	0.0001
Origin/topicality of the product	329.70 ^a <i>3.000</i>	191.80 ^b <i>2.000</i>	254.60 ^c <i>3.000</i>	0.0001
Advertisement	318.50 ^a <i>3.000</i>	235.20 ^b <i>2.000</i>	243.20 ^c <i>2.000</i>	0.0001
Health safety issues	242.80 ^a <i>5.000</i>	183.90 ^b <i>4.000</i>	285.10 ^c <i>5.000</i>	0.0001
Number of Consumers (n=511)	98	106	307	

NB: Within rows, average ranks with different superscript differ significantly at $P < 0.05$ according to Q non-parametric test (Eddison 2002). Average ranks are reported in standard text and medians in *italic*