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Consumers' Motivation in Purchasing "New Wines" in Greece with Emphasis on Wine Produced by Organic Grapes: A Means-end Chains Approach

Abstract

The present study attempts to offer more insights into the Greek wine market with emphasis on wines produced from organically grown grapes by relating wine choice to consumers' personal value structure. With the use of a qualitative sample and applying the Means-end Chains methodology and the corresponding "laddering" interviewing technique, it attempts first to reveal the way basic motives are linked to wine shopping behaviour of consumers and the way wine purchase-relevant knowledge is stored and organised in their memory in relation to their personal values. Then, by discriminating between organic food buyers and non-buyers, the study identifies motivational and cognitive discriminating differences between the two consumer types, which can offer a solid explanation as to their distinctive purchasing behaviour in respect of the organic products.

(Key words: Organic consumer, purchasing motives, Means-end Chains, benefits, personal values)

1. Introduction

In 1997, the area devoted to viticulture in Greece amounted to about 132,000 ha or 3.7% of the EU area (Greek data from national sources, Eurostat and FAO, reported in Pomarici, 1999; Kontogeorgakos, 1997; Siasos, 1998; Spyropoulos, 1999; Tzimitra-Kalogianni et al, 1999; Karahalios, 2000; and Papandropoulos, 2000, 2001a and 2001b). Wine production reached the level of 3.9 million hectolitres (2.4% of the EU production) comprising 60% white and 40% red wines and utilising 250 grape varieties. The average plot size is 0.5 ha in comparison to the EU's 1.6 ha, while most grape growing farms are peasant farms. The 1997 average production/ha was the second lowest (after Spain) among the seven EU wine-producing countries (France, Italy, Spain, Germany, Portugal, Greece and Austria). Greece is an introvert market, since it imported in 1997 only 60,000 hl from EU and practically zero from non-EU countries (0.2% of EU imports). On the other hand, Greek wine exports are falling, reaching in 1997 the level of 700,000 hl or EURO 79.7 million. The 1996 Greek per capita wine consumption reached 31 litres, placing Greece at an intermediate level within the EU, after France (60 litres), Italy (59), Portugal (58) and Spain (38). In terms of distribution channels, 65% of commercial wines were distributed through supermarket chains, 33% through wine shops and only 2% through restaurants, while the relevant numbers for France have been 41%, 19% and 28% respectively, with another 12% distributed directly from wineries.

Traditionally, the international image of Greek wines was poor, despite their long tradition of wine production. The wine sector in Greece, together with Italy and Portugal, features the worst structural situation: the vine growing is distributed throughout all regions with increased cost implications and the emphasis is traditionally on bulk self-consumption or bottled low quality wine distributed to strictly local markets (commercial wines represent only 40% of consumption, with an astonishing 60% assigned to bulk wine consumption, in comparison with only 2.5% in France, 3.5% in Italy and 4.5% in Portugal). Production comes from a large number of local grape varieties, but local growing and winemaking practices are usually rather crude. As a result, Greek regions have not been able to transform the, often excellent, first material into a corresponding variety of different and well-defined wines. This situation constitutes Greek wines non-competitive in the world market. Most wine production still is generic, falling bellow the standard now required in the international market.

However, Greek climatic conditions and the existence of a broad viticultural potential have recently generated ample room for differentiation in order to redirect the Greek wine business. The number of "Vins Delimite' de Qualite' Superieure" is 215, in addition to the 74 regional wines. Today, 12% of the Greek wine production is being constituted by quality VQPRD wines. In many areas, innovative wine producers demonstrate excellent performance, proof of which lies in the increasing interest of the foreign markets. As a result, the average export price/litre of Greek wines, although still bellow the EU average, it reached in 1997 EURO 1.68, increased by 26% from 1993's EURO 1.23. Over the last decade, domestic clients' interest has also moved towards wines with a clear geographical identity, or, even recently, wines produced from organically grown grapes, when offered at a higher quality level. Total consumption increased by 4% since 1986, in comparison to the reduction of 5% in the rest of the EU, due mainly to an increase in the consumption of quality red wines. Hence, there is

strong evidence that the Greek wine sector can have a market potential domestically and internationally, if oriented towards the satisfaction of newly emerged, quality-based, consumer preferences.

The above revitalisation of the Greek wine industry coincides with a number of emerging trends in consumers' wine preferences internationally. In the traditional consumer countries wine has lost its function as a daily component of diet. Now its consumption is influenced, on the one hand, by the decreasing effect of a long tradition characterised by religious and symbolic values and, on the other, by an increase in new purchasing and consumption behaviour linked with pleasure, conviviality, psychological satisfaction, refinement and cultural interest. As a consequence, the demand for wine has evolved over the last decade, bringing a revitalisation of the market, which started at the late 80's with a strong interest of the major import markets in internationally known wine varieties (the so-called "vins de capage": Chardonnay, Cabernet, Merlot etc.) and continued in the 90's with the introduction of "new wines", for instant these produced by organically grown grapes. Hence, the world wine market nowadays is a "two-way" market, as a consequence of an increasing supply of "new world" wines and the evolution of EU consumer preferences towards differentiated consumption patterns (Pomarici, 1999).

Based on these facts and following a market-oriented approach, the present study attempts to contribute to the redirection of the Greek wine sector towards high-quality, competitive products. As a consequence, it has two objectives: first, to understand Greek consumers' attribute preferences, motivations and cognitive structures with regards to wine. And second, to discriminate between two preselected consumer types, organic buyers and non-buyers, with similar socio-demographic profiles, in an attempt to understand their respective organic purchase behaviour. The study has an exploratory nature, therefore its aim is to adopt a qualitative approach, the Means-end Chain (MEC) model, to fulfil its objectives. According to Grunert and Grunert (1995) the MEC-related "laddering" interviewing technique can give valuable insights by prompting consumers to reflect on their buying motives in a way not typical for daily shopping behaviour. Such insight is necessarily qualitative in its character.

The paper begins with a discussion of the literature concerning the organic consumer and the factors that affect demand for organic products. Then, literature's second part involves a brief description of the MEC theory and the laddering technique adopted. The aims and objectives part follows, in relation to methodology, which offer more insights with respect to qualitative sample selection and MEC method implementation. The study proceeds in its third part with the analysis and empirical results, which, together with discussion, include the wine consumers' motivational and cognitive structure development task and the analysis of the main differences between organic buyers and non-buyers. The concluding part summarises the major points, discusses managerial implications and closes the study by presenting limitations and future research extensions.

2. The Greek Organic Market and the Consumer

In 1996 the organic sector in Greece accounted for 0.15% of utilisable agricultural are (UAA), the lowest in Europe (all data from National sources, mainly reported in Michelsen et al, 1999). However, since then it has enjoyed an average growth rate of 50% per annum, the highest in Europe. By the year 2000 it reached 0.5% of the UAA, with more than 5,000 exploitations. The five most important organic food groups in terms of their 1998 market share and 1994-98 sales growth were vegetables, olives/olive oil, cereals and fruit and nuts. In terms of distribution channels, more than 300 firms are involved, with only 30% of vegetables, fruits and cereals being distributed through newly-emerging specialised shops and at least 30% through direct sales. The share of distribution through supermarkets is lower (for example 10% for olives/olive oil and cereals, 5% for wine and less than 1% for fruits and vegetables, compared to other European countries with more developed organic sectors). In the year 2000 the total retail sales value of the sector amounted to EURO 7.63 million, 25% of which represent imported goods. Greece mainly exports organic fruits and olives/olive oil (more than 80% of the organic quantity produced for both). Producer price premiums above conventional produce in the period 1997/98 have been 30-50% for vegetables, 10-20% for cereals, 20-50% for fruits, 15-50% for olives/olive oil, and +10-25% for wine.

Confusion still exists as to what defines an "organic" wine. Experts seem to agree that organic wine must start from organically grown grapes. However, there is not yet a consensus among growers

as to the definition of "organic wines" The use of sulfur dioxide (SO_2) is the most controversial issue to be tackled. Greek as well as European legislation has not yet provided any directive for organic wine standards, therefore the relevant term can not be put on EU wine bottles (Tsintarakis et al, 2001). In Greece the area devoted to the organic cultivation of vineyards was approximately 1500 ha in 2000, 80% of which comprise the organic cultivation of raisins. The wine-producing organic vineyards produced about 7000 hl of more than 75 "organic" wine labels, some of which are VQPRD. In 1998, sales of wine produced from organically grown grapes represented 10% of the Greek organic market.

Tsintarakis et al. (2001) conducted the only survey to date (to the knowledge of the authors), regarding Greek organic wine. The study, analysing consumers' satisfaction with organic wine, uses a convenience sample of individuals having experienced the product at least once prior to the survey. According to their findings, Greek organic wine consumers do not seem to be very demanding, due to the low level of indigenous competition, the non-existence of foreign competition as yet, and the fact that, for most consumers, it is a new and unknown product. However, levels of overall satisfaction indicate that there is significant potential for further improvement of the product in the eyes of consumers.

Greek consumers' satisfaction with organic wine is achieved mainly through product and image criteria, as opposed to promotion, place and price. Customers seem to be indifferent towards the issue of price, and it is remarkable that price is the least important of all. In addition, a significant majority are dissatisfied or very dissatisfied with the issues of promotion (92.3%) and place (91.5%), in accordance with comparable Greek studies (Tzimitra-Kalogianni et al, 1999). On the other hand, organic wine performance is found to be very high in some product and image sub-criteria, such as quality (colour, aroma, taste, finesse), reliability and retail price, that constitute the main advantages of the product. Although consumers indicate satisfaction with, and the importance of, the health aspect of organic wine, this aspect does not discriminate between the purchase motives of organic buyers and non-buyers.

3. Means-end Chains (MECs) Theory and Laddering Technique

A MEC is a model that seeks to explain how a product or service selection facilitates the achievement of consumers' desired end-states. Means are objects (products) or activities in which people engage. Ends are valued states of being such as happiness, security, and accomplishment. MECs, then, are hierarchical cognitive structures that relate consumers' product knowledge to their self-knowledge. The lower levels of a means-end hierarchy contain relatively concrete knowledge about product attributes and their perceived linkages to the functional consequences of product use. These functional consequences may be associated with more abstract knowledge about the psychological and social consequences of product use. Finally, some MECs may connect these psychosocial consequences to abstract self-knowledge about the consumer's life goals and values. Consumers see products as more self-relevant or involving to the extent that their product knowledge about attributes and functional consequences are connected, via MECs, to their self-knowledge about desirable psychosocial consequences and values (Walker and Olson, 1991).

According to Gutman (1982), the MEC model is based on two fundamental assumptions about consumer behaviour: (a) that values defined here as desirable end-states of existence play a dominant role in guiding choice patterns; and (b) that people cope with the tremendous diversity of products that are potential satisfiers of their values by grouping them into sets or classes so as to reduce the complexity of choice. This suggests that, in addition to the product-class type of product categories, consumers are capable of creating categories based on product functions. It is essential for consumers to reduce the complexity inherent in the multitude of alternatives with which they are faced. Although grouping is determined by the object's properties, the choice of properties to be focused on is influenced by values. This means that values are translated from their context at the more abstract or inclusive levels of the chain to the less abstract, where products are categorised into classes.

Laddering, the qualitative research method that accompanies MECs, refers to an in-depth, oneon-one interviewing technique used to develop an understanding of how consumers translate the attributes of products into meaningful associations with respect to self, following MEC theory. Initially, the attributes of the product used by the consumer to judge, evaluate and compare, are elicited via several available techniques. Subsequently, these attributes serve as a starting point for the depth interview. The techniques that have been developed for the purpose of identifying important attributes range from complex elicitation of idiosyncratic attributes, for example triadic sorting, to simpler techniques as picking from a pre-specified list of attributes (Grunert et al, 1995; Bech-Larsen et al, 1997). The attributes elicited by different techniques potentially differ on a number of dimensions, such as, among other, their number and perceived importance. On average, the attributes generated by the "pre-specified list of attributes" technique are perceived as more important than the attributes generated by more complex methods. A possible explanation could be that respondents are asked explicitly to pick the most important attributes when using it. In addition and not surprisingly, letting respondents mark attributes from a list is by far the quickest technique. The time dimension has potential beneficial implications for the quality of the data collected after the elicitation procedure, due to the possible fatigue or busyness of respondents.

Laddering involves a tailored interviewing format, primarily using a series of directed probes, typified by the "why is this important to you?" question, with the express goal of determining sets of linkages between the key conceptual elements across the range of attributes (A), consequences (C), and values (V). Distinctions at the different levels of abstraction, represented by the A-C-Vs, provide more personally relevant ways in which products are grouped and categorised.

The analysis of laddering data across respondents first involves summarising the key elements by standard content-analysis procedures, while bearing in mind the levels of conceptual abstraction (A-C-V). Then a summary table called an *implication matrix* can be constructed representing the number of connections between the elements. It is this "crossing over" from the qualitative nature of the interviews to the quantitative way of dealing with the information obtained that is one of the unique aspects of laddering and clearly the one that sets it apart from other qualitative methods.

From this summary table dominant connections can be graphically represented graphically as a tree diagram in the form of a *hierarchical value map* (HVM). A HVM is gradually built up by connecting all the chains that are formed by considering the linkages in the matrix of relations among A-C-V elements. This type of cognitive map, unlike those output from traditional factor analysis or multidimensional scaling methods, is structural in nature and represents the linkages across levels of abstraction. The main guideline at this stage is to try at all costs to avoid crossing lines, providing coherence to the map and adding considerably to its interpretability (Reynolds and Gutman, 1988). The substantial requirement imposed then is that the finished HVM must represent a significant number of the associations derived from the raw laddering data. According to Gengler and Reynolds (1995), the minimum threshold value should never be less than 70%, with an average typically between 75-85%.

According to Grunert and Grunert (1995), the MEC methodology can potentially have two types of methodological objectives: the motivational and the cognitive, both adopted in this study. The *motivational-type objective* of the study is to use laddering in order to obtain insight into consumer's buying motives –e.g. in the way basic motives are linked to wine shopping behaviour. The main criteria for evaluating the usefulness of the approach would be to what extent users of the results feel that they have achieved a better understanding of consumers that gives inspiration to managers and helps them make better business decisions.

The cognitive-type objective of the study is to use laddering and the related MEC analysis as a model of consumers' consumption-relevant cognitive structures, e.g. of the way that relevant conventional and organic wine consumption knowledge is stored and organised in their memories. A basic hierarchical model will be revealed, in which cognitive categories of different levels of abstraction are inter-linked in chains and networks. It is assumed that behavioural motivation is derived by linking cognitive categories corresponding to concrete products with cognitive categories at a high degree of abstraction, like values. It should, then, be possible to explain (and/or predict) actual wine purchase behaviour with regard to these concrete objects by specifying how, in a given situation, parts of the cognitive structure are retrieved and used to guide behaviour.

4. Methodology

The study employed a convenience sample (Gutman, 1984; Gofton, 1997) of chief household food buyers in the City of Athens, who had purchased at least one bottle of wine one month prior to the survey period (February-April 2001). Zanoli and Naspetti (2001) argue that the MEC model, due to its

cognitive approach, relies heavily on unobserved mental constructs to be inferred in the laddering procedure; it is not a simple observation of real consumer behaviour, nor a stated account of actual behaviour. As a result, the sample needs not to be representative. Vannoppen et al. (1999) add that convenience samples are allowed in the laddering research method. The main criterion is that respondents should be able and prepared to "speak out" and that the person knows the product and market channels well. Accordingly, results need to be deepened and widened in further quantitative studies.

The sample was stratified according to control criteria with respect to both demographics (gender, age, educational level, marital status, place of residence, and income) and organic food purchase behaviour. The structure and size of the sample were based on an extended review of the work undertaken in the field of values and cognitive structures' research. Consequently, a sample of 49 respondents was recruited, consistent with a number of previous MEC studies (Jolly et al, 1986; Walker and Olson, 1991; Grunert and Grunert, 1995; Pieters et al, 1995; Grunert and Sorensen, 1996; Audenaert and Steenkamp, 1997; and Zanoli and Naspeti, 2001). The next step was to divide the sample into two sub-groups of 28 organic food buyers and 21 organic food non-buyers. This distinction imposes the convenience nature of the sample selection process. The 28 organic buyers were recruited from a number of organic outlets in the area of Athens, had to have purchased organic food at least once during the month prior to the survey (January 2001) and their socio-demographic profile reflects that of the typical Greek organic buyer of higher social status, as it is developed in the work by Fotopoulos and Krystallis (2001a). In addition, no statistically significant differences exist between the two sub-groups regarding their socio-demographic profile. This is necessary in order for the HVMs of the two subgroups to reveal cognitive differences not attributable to their socio-demographic disparities.

A questionnaire was used as an instrument for primary data collection (Walker and Olson, 1991; Zanoli and Naspetti, 2001). It was designed in the form of four thematic sections. The first section addressed "food purchase behaviour", "dietary habits" and "media use". The second concerned "organic purchase behaviour", "attitudes", "source of information", "involvement" and "overall reason for organic preference". The third section addressed the laddering phase. Finally, the fourth section concerned socio-demographic characteristics to enhance the identification of consumer profiles. This full-version of the questionnaire was administered to the 28 organic buyers, while a shorter version (the organic-related part excluded) was administered to the non-buyers.

The "attribute on the list" method is chosen in the present study, mainly for reasons of simplicity and limited time and resources, constituted by 16 groups of 50 attributes covering 5 cognitive and abstract categories of product's marketing mix (Table 1). It has been based on a detailed review of the most recent (1997-2001) wine consumer-related Greek and international literature (Gil and Sanchez, 1997; Goldsmith and d'Hauteville, 1998; Quester and Smart, 1998; Skuras and Vakrou, 1999; Tzimitra-Kalogianni et al, 1999b; Channey, 2000; Angulo et al, 2000; and Tsintarakis et al, 2001). According to Quester and Smart (1998): "...wine, with its numerous tangible and intangible attributes, clearly allows consumers to utilise numerous attributes in their decision making...A review of the wine literature uncovers a number of such key attributes found to influence wine consumers' purchase choice". A simplified description of wine organoleptic attributes has been chosen to aid consumers in their evaluation, since the wine-related terminology used by experts and the specialised press is believed to be incomprehensive for the consumer not deeply involved with wine selection process.

Most of the laddering problems can be detected and possibly circumvented by a trained interviewer, if the interviews are conducted in a manner encouraging a natural and redundant flow of speech. Then the interviewer reconstructs ladders only after the interview (Grunert et al, 1995). The "soft" laddering type is the one that restricts as little as possible respondent's natural flow of speech, and although more suitable for low-involvement products, it is adopted by the present study.

The subjects were selected based on the criteria discussed previously and contacted. The discussion took place at home. The time and day of the visit were arranged by the respondent. The purpose was to make the subject feel comfortable and at ease in order to induce a positive mood towards talking freely during the interview. The interview opened with a short introduction to welcome the subject and to thank him/her for participating. The subject was informed that the goal of the interview was to

extract the personal meaning he/she assigns to bottled wine. It was stressed that data were strictly confidential. Also, the definitions of the elements whose real meaning can possibly be ambiguous for the respondents (for example, the organic and "Appellation of Origin" AOO sign and the ISO and HACCP schemes) have been provided in written form to avoid confusion. Then, the phase of consequence and value elicitation was initiated.

The interview started by showing the subject a sheet of paper with the attribute list and asking for importance weights on a scale of 1 to 3: "when purchasing (bottled) wine, I believe that the following characteristics are *important/rather important/ unimportant* criteria for my decision" (Claeys et al, 1995; Bech-Larsen et al, 1996; Botschen et al, 1999). In the second step, all the attributes chosen as "important" were selected as laddering starting points. The subject was encouraged to follow the ladder of abstraction mainly by using probes of the form "why is this important to you". A ladder was considered to be at its terminal level when a) subjects started giving circular answers, or b) the respondent was unable or unwilling to answer. In this case, the interviewer first tried to stimulate the process by using techniques suggested by Reynolds and Gutman (1988), such as referring to a third person, evoking a usage context, etc. When one ladder was completed, the interviewer returned to the next salient attribute and the laddering process was repeated. The time necessary for the accomplishment of the method per subject varied from 30 to 60 minutes, mainly according to the willingness of the individual to answer, his/her ability to express him/herself and involvement in the purchase of wine.

5. Empirical Results and Analysis

5.1. Sample description, food and organic purchase behaviour and attitudes

Regarding the socio-demographics of the sample, 28% are 26-35 years of age while 32% belong to the 36-45 years group. Two-thirds of the sample are women, justifying the criterion of inclusion in the sample of the main household food purchase decision-maker. Almost two-thirds have a university degree, one-quarter belong at the high monthly income level of more than USD1500 and 71% of households contain a working out-of-home female. Almost half of the sample are single and have no children. Regarding professional status, 45% are self-employed. In terms of place of residence, at least half of the sample live in high-average or high areas of Athens.

Regarding the first thematic section of the questionnaire, the results reveal: the majority of respondents purchase food at least once per week (89%), spend at least EURO 58 per week on food (71%) and shop at open markets (53%), supermarkets (39%), local stores (18%), hypermarkets (14%) and specialty shops (1.5%). Only 57% of the sample claim to follow a balanced diet, though for another 78% fruits and vegetables are always included in their everyday diet. In addition, approximately one third of respondents claim to usually have the time to eat three times per day (28%) and consume small quantities of food frequently during the day (39%). The majority of the sample are average TV watchers (53% watch TV for less than 2 hours daily) and radio listeners (50% listen to the radio everyday), are light newspaper buyers (only 14% purchase them daily), but frequent magazine buyers (57% purchase them at least once per month). The organic buyers statistically differ from the non-buyers (x² at the 95% significance level) in terms of their much higher food purchase frequency at specialty shops, more apparent care for a healthy dietary pattern and their heavier use of all the media under examination.

With respect to the second thematic section of the questionnaire, organic buyers purchase organic food at least once per month and 81% of them at least once per week. The most frequently purchased organic foods are vegetables (46% of buyers) and fruits (28%), while cereals, wine and olive oil follow (7%). During the year 2000, wine produced by organically grown grapes has been bought frequently by 32% of the organic buyers, occasionally by 11% and rarely/almost never by the remaining 57% of respondents.

Buyers purchase organic products most frequently from specialty shops (61%) and organic open markets (43%). Purchases from main food retail outlets are lower. For example, 21% purchase from supermarkets, 14% from minimarkets, and 11% from hypermarkets, indicating organic products' limited availability in the Greek market. The main source of information for the regular organic consumers are their friends, the press, written articles on the subject, and their family. This suggests a lack of the media, specialists and organised private or state promotional campaigns as information sources to organic buyers. Overall, the major reasons for the purchase of organic products are

healthiness (100%), environmental friendliness (96%), superior quality (96%) and better taste (93%) in comparison to conventional products.

5.2. Analysis of the importance assigned to each wine attribute included in the attribute list

A frequency analysis of the importance assigned to each wine attribute reveals the following results: approximately 70% of the 50 attributes included in the list are "important" for both sub-groups (37 attributes for the organic buyers and 34 for the non-buyers). The degree of importance assigned to each attribute is different in the two sub-groups. All the buyers mostly evaluate the "organic label" as important, and then the "value-for-money" price (96% of the buyers), the "area of production" and "harvest date" (89%), the "recycling bottle", "label with nice appearance", "Appellation of Origin (AOO) sign", "information about the production method", "keep until instructions" (85%) and the "country-of-origin" sign (82%). In contrast, all the non-buyers mostly favour wine's "pleasant taste", and then its "deep red" colour and "attractive label" (90%), the "recycling bottle" and "area of production" (85%), and the "transparent bottle", "country-of-origin", "ISO/HACCP certification", "information about the production method" and "keep until instructions" (81%). In general, the buyers seem to mostly prefer extrinsic quality cues found on the label, while the non-buyers mostly appreciate appearance and organoleptic attributes, though the differences are marginal.

The main difference between the two sub-groups, however, mostly concerns the "value-formoney" attribute, which relates price to quality, adds the "high perceived quality per price unit" concept to the equation "organic food = high quality" and has been important for almost all the buyers, but less than half of the non-buyers. It is also characteristic that neither high nor low price are evaluated as important by the sample, excluding the price component from those important for wine selection. Another 7 attributes are evaluated differently by the two sub-groups, being important for the one and rather unimportant for the other or vice versa (for example the "label's traditional image" and the "number of bottle per year" are important for more than two-thirds of the buyers but rather unimportant for the non-buyers).

Nevertheless, the degree of agreement between the two sub-groups is generally high, which makes the discrimination between them difficult, if based only on wine attribute importance criteria. Most of the attributes are evaluated by a similar proportion of respondents in the two sub-groups. For instance, the number of attributes evaluated as important by at least two-thirds of the respondents in each sub-group has been 21 for the buyers and 19 for the non-buyers, 17 of which are common between the two sub-groups. In addition, apart from all the organic buyers, 71% of the non-buyers also believe the organic label is an important wine characteristic.

With the limitation of the small sample size, it can be concluded that: first, both sub-groups are similar in their wine attribute preference, possibly due to their common, high-status socio-demographic profile. Given that all 49 respondents are bottled wine buyers, the wine attribute preferences revealed here are those of the typical high status Greek consumer of wine, irrespectively of organic food preference. Second, it is clear that segmentation and positioning strategies, if based only on respondents' stated preferences and socio-demographic profiles, would fail to identify marginal motivational differences crucial for products oriented towards niches or small segments. The suggestion that people behave differently, although they prefer the same product attributes, is a common issue. While the high social status of the two sub-groups might partially explain their attitudinal convergence, this paradox remains to be explained with the use of the MEC methodology.

5.3. Coding of laddering data – consequences and values elicited

An archive of recorded and transcribed tapes is created, so that the full context information is available in coding (Grunert et al, 1995). Then, the process of iterative coding is followed: a first coding was performed and the implications of this coding were made transparent by aids like keyword-in-context list and insertion of codes into the text database. Based on these aids, the coding was revised and the implications of the new coding were analysed in the same way. Although the number of codes selected in the 1st and the 2d iteration was different, 72% of the elicited concepts have been assigned to the same code. This procedure was repeated until the coding appeared satisfactory, with the agreement measure between the 2d and 3d iteration reaching 94%. The consequences and values elicited after the question "why is this important to you?" being repeatedly asked by the interviewer to the 49 respondents were

grouped after the 3^d iteration by assigning a number to each one of them into 15 functional consequence, 15 psychological consequence, 8 instrumental value and 8 terminal value codes for the organic buyers and 17, 15, 6 and 4 codes respectively for the non-buyers.

The number and type of benefits and values elicited have been widely similar for the two subgroups. The wine purchasing motives (use functional consequences) revealed here are mostly related to food's "attractiveness", "tastiness", "quality", "healthiness", "information/control/transparency", "traditional image" and "distinctiveness", which emanate from more abstract wine purchasing motives (use psychological consequences), such as: "being informed", "being environmental conscious", "feel confident", and "feel relaxed". All these benefits impose the selection of the relevant wine attributes we have seen. On the other hand, the same motives are imposed by consumer's personal value system, comprised by concepts such as: "pleasure", "security", "friendship", "ethnocentrism" (instrumental values), or, at a higher abstraction level, "psychological satisfaction" and "high quality of life" (terminal values). In line with the attribute-level findings we can conclude that the consequences and values revealed here are those of the typical high status Greek consumer of wine (irrespectively of organic food preference) and constitute his/her self-related "guide" that determines wine preference.

The previous findings offer an explanation as to what imposes the wine attribute selection we have seen: the organic buyers mostly prefer extrinsic quality cues found on the wine label, because their purchasing motives are food's "high quality", "healthiness/purity" and "traditional image/authenticity", to a greater extent than those of the non-buyers, if motives' elicitation frequency is taken under consideration. The buyers, in turn, appreciate appearance and organoleptic wine attributes because their purchasing motives are food's "attractiveness", "valuable information", "tastiness", "transparency", "control" and "distinctiveness", to a greater extent than those of the buyers. Moreover, the higher elicitation frequencies of the non-buyers, together with their smaller number of values revealed, indicate a more solid psychographic profile regarding wine selection, which may translates to a more clearly expressed demand for specific wine attributes in the marketplace. Nevertheless, these differences are still marginal and the discrimination between the two sub-groups remains difficult.

5.4. Use of Laddermap software – the Implication Matrix – the Hierarchical Value Map

This stage of the analysis process is drastically improved by the use of interactive computer software, so that the content analysis can easily be reviewed and modified (Gengler and Reynolds, 1995). The Laddermap software is used in this stage of the research. An interactive data entry feature is provided, under which multiple A-C-V ladders per respondent are entered, with up to ten "steps" per ladder. As ladders are entered per respondent, the content analysis done so far manually is being implemented. The Laddermap software also constructs the aggregate Implication Matrix. All the direct plus indirect associations are counted. Their sum is an indicator of the strength of a given association. Associations between concepts mentioned several times in different ladders elicited from the same individual are counted only once by the software when constructing the implication matrix, in order to prevent bias in the aggregate results. After the construction of the Implication Matrix, a cut-off value is to be selected in order to determine which connections should be represented on the HVM. A bar chart is being provided by the Laddermap software to show how much variance would be explained by different levels of cut-off values. Furthermore, automation of the task allows experimentation with different cut-off levels, with flexibility and control over the process.

The higher number of times an association can be found in the implication matrix is 28 for the organic buyers and 21 for the non-buyers. Numbers are expressed in fractional form, with direct relations to the left of the decimal and total relations (direct plus indirect) to the right. The chosen cut-off level is that of 4 respondents mentioning a specific association, with a satisfactory variance explained of 77%, and in accordance with the literature, which suggests a level from 3 to 5 relations for a sample from 40 to 60 individuals (Reynolds and Gutman, 1988).

Constructing the HVM in a fashion that is easily readable is the final step of the analysis. To actually construct the HVM from the series of connected pairs one literally builds up the map from the chains extracted from the matrix of implicative relations. The organic buyers' HVM represents 78% of the direct associations greater than 3 in the Implication Matrix (32 out of 41) The relevant number for the non-buyers is 74.3% (29 out of 39). In addition, the associations mapped emanate from wine attributes

evaluated as important by at least two-thirds of the members of each sub-group (21 for the buyers and 19 for the non-buyers). Hence, the number of cognitive associations mapped is 10 functional - 4 psychological consequences - 3 instrumental - 1 terminal value for the buyers and 9 - 3 - 2 - 1 respectively for the non-buyers.

In Appendices 1 and 2 the HVMs of the two sub-groups can be seen. Having plotted all relations, it is desirable to look at all elements in the map regarding the number of direct and total relations they have with other elements, both in terms of other elements leading to them and in terms of their connections to more "abstract" higher order elements. Being able to identify the connections between concepts in the mind of the consumer is essential to understanding the perceptual basis for decision making. Thus, focusing on the connections between concepts is central to both understanding and using laddering research.

6. Discussion

6.1. The Hierarchical Value Map of the organic buyers

Focussing on the consequence level, the map's most important area is constituted by concepts related to what can be termed as *the pursuit of quality* (50 direct and 52 total links – or 50.52). In particular, this is related to food's "high quality" and "value of tradition". Organic buyers prefer a large variety of different wine attributes (such as its value-for-money, traditional image of the label, and region of production, its AOO sign, country-of-origin, number of bottles per year, harvest date, cylindrical bottle and clear colour) because they perceive that these attributes satisfy their search for high quality. In turn, this search is strongly associated with the value of "searching for pleasure in life".

The second most important consequence is that termed *healthiness-long life* (35 direct and 35 total links). This is constituted by: food's "healthiness-long life", "purity-chemicals' free" (from the attribute of "organic label") and "transparency". This is a cognitive structure strongly related to the organic concept and which is mostly responsible for organic food's purchase intention of the buyers. The latter evaluate wine's "keep until" instructions, organic label, glass transparent bottle and clear colour as important, because they perceive that these attributes translate to a healthy product leading to a healthy, long life. Although from the interviews it has not been clear what imposes this wine purchasing motive, since the specific area remains at the benefit-level, the "organic label-purity/chemicals' free" link is the third strongest on the map (hence clearly discrete in buyers' cognitive structures).

The third most important structure of the map is the *acquisition of information* (23 direct and 23 total links), comprised by: "valuable information" on food and "being informed" (from the benefit of "valuable information"). The organic buyers value information regarding the variety of grapes and wine's production method because these attributes are considered as important components that satisfy their deeper need for acquiring information. However, this area does not reach the value-level either. Hence we can not be certain as to what imposes this need, though the "valuable information-being informed" link is the second strongest of the map.

The fourth and fifth cognitive areas concern the concepts of aesthetic attractiveness-relaxation (18.18, from the attribute of wine bottle's "attractive label" and the benefit of "attractiveness") and tastiness (17.17, from the attributes of wine's "pleasant", "velvet" taste and "deep red" colour and the benefit of food's "soft structure"). Both are related to the "search for pleasure in life", similarly to the "pursuit of quality" area. In addition, the "attractiveness" benefit is weakly associated with the value of "psychological satisfaction". On the contrary, the wine bottle's "nice label—attractiveness" link is the most clearly determined of all in consumers' minds.

Finally, the last three cognitive areas of the map are *environmental consciousness* (9.11, from the attribute "recycling bottle"), *control-attention to the production process* (8.8, from the attributes of "ISO/HACCP" and "best before" date) and *ethnocentrism* (5.7, from the attribute "country-of-origin" and the benefit "confidence on Greek products"). The last two areas reach the value-level and source from consumers' need for "feeling secure-safe in life" and "supporting one's country" respectively.

6.2. The Hierarchical Value Map of the non-buyers

The same concepts form the areas of the non-buyers' HVM, however their order of importance is different. In descending order, these are: acquisition of information (31.32), healthiness-long life (27.28), aesthetic attractiveness (20.20), high quality (16.16), tastiness (12.12), control-attention to the production

process (10.11), environmental consciousness (9.12), ethnocentrism (4.5) and distinctiveness – innovative character (4.4, the only area not present in the buyers' HVM). In other words, the motives related to information about a product and its aesthetic features constitute more important leverages of purchase, while that of product's perceived quality constitutes less important leverage of purchase for the non-buyers, compared to the buyers. On the other hand, the motive of food healthiness is seriously taken under consideration by both sub-groups, which explains the high importance of the organic label for the non-buyers as well. Moreover, environmental consciousness, although not crucial as a motive, is present in both maps, which also explains the result that recycling bottle material as important to both sub-groups.

Nevertheless, the composition of the common areas in the two maps is different. At the attribute level, from the 23 attributes mapped in both HVMs, 6 appear in the one but not in the other. Another 17 are commonly mapped, however 6 of them are assigned to a different area between the two sub-groups: organic label, "keep until" instructions, value-for-money, AOO sign, country-of-origin, and "best before" date (see Appendices 1 and 2). In other words, for 1 out of 3 commonly important attributes, the reasoning behind their importance is different between the two sub-groups. Hence, while the buyers find the organic label a health-related aspect of wine, the non-buyers mostly relate it to the control-attention paid during the production process, a much weaker motive, obviously not enough to translate the favourite attributes as well, though not directly related with the organic concept. For instance, it seems that the AOO sign in wine (wines of superior quality) is a powerful purchasing leverage, since it belongs to the strongest motivational area in each group. This fact further indicates that high status consumers would strongly prefer AOO quality wines to regional or table wines.

Moreover, although the price factor (especially the "value-for-money" attribute) is absent from the non-buyers' HVM indicating that actual wine choice is not a matter of money for the (high-status) non-buyers, it is considered a quality aspect of wine by the (high-status) organic buyers. This carries two strategic messages. The first is that price is a crucial factor of the organic wine marketing mix but possibly not of the conventional wine's. The second is that the "right" price level is a consumer-subjective feature that should be carefully tailored for each organic wine brand. Assuming that an organic product means high quality for its buyers, high quality demands high price and vice versa. This justifies the premiums willingly paid by organic wine purchasers (Fotopoulos and Krystallis, 2001b). It also forces wineries to keep organic prices at a level definitely higher than that of the relevant quality but conventional wine brands and refrain from following a low-price competition strategy.

At the elicited value-level, the main concept related to the consequences for both sub-groups is that of "searching for pleasure in life", which imposes the motives of tastiness and attractiveness to the two sub-groups and that of high quality to the buyers. This proves that pleasure is the rationale behind wine consumption, irrespective of the organic production method. In addition, the same holds for the value of "feeling secure in life", that imposes the interesting choice of the HACCP/ISO certification as an important wine attribute for both sub-groups, indicating its huge potential for the food industry and its appeal at least to the high status consumers. In general, the number of value associations elicited by the buyers is larger and 5 of the 8 cognitive areas of their map reach the value-level, in comparison to only 2 of the 9 areas of the non-buyers' map. This can be due to the ability or willingness of the buyers to express themselves, however it can indicate their higher degree of conscious involvement in the wine selection process.

7. Conclusions – Managerial Implications

7.1. Conclusions

The results are consistent with previous surveys of the Greek wine consumer. For example, Tzimitra-Kalogianni et al. (1999) report that the most preferred attributes are wine's "full (pleasant) taste", "clarity", "appellation of origin", "aroma" and "attractive label", that are also identified in this study. The same study reveals that Greek consumers believe that wine should be bottled in glass and never in carton boxes, because glass can be recycled, an indication of consumers' environmental consciousness. On the other hand, Tsintarakis et al. (2001) conclude that, although consumers assign a major role to organic wine's health aspect, "healthiness" is not sufficient to prevent consumers from

comparing organic wine with conventional wine. In other words, healthiness as a purchasing motive does not differentiate satisfactorily between organic buyers and non-buyers. This is also confirmed by this study.

Nevertheless, the study at hand goes one step beyond. It analyses consumer preferences for a series of "new" wine attributes and reveals in a structured manner, purchasing motives that comprise the innovative concept of "new" wines, related to consumers' cognitive system imposed by their higher values. In addition, a clear indication exists regarding the inefficiency of the more traditional attribute-level segmentation techniques in comparison to those based on the level of the consequences derived from product use. In this way, the survey attempts to offer answers to a "why" question regarding high status consumer motivational preferences for wine and cognitive structures that impose "organic" wine selection by the buyers as opposed to the non-buyers. The overall findings are as follows. Firstly, that healthiness, quality, information, attractiveness and tastiness are the five main motivational benefits of wine purchase. Secondly, that pleasure is the value-leverage of wine consumption. Thirdly, that the distinction between organic buyers and non-buyers derives from the differences in the evaluation of these motives in consumers' cognitive structures and the different motives with which wine's organic character is associated.

7.2. Managerial implications

Each of the HVMs' perceptual orientations could be seen as a potential organic wine positioning strategy. This could be accomplished by benchmarking the strengths and weaknesses of the product using a combination of more objective traditional attitude data (the attribute-level analysis) and subjective judgement (the HVMs). This is the case with the buyer HVM's quality orientation. The linkages between a number of wine attributes (such as the "AOO sign" and "country-of-origin") and the "high quality" motive are weak, therefore one positioning option would be to build a strong association there, in the context of "an AOO wine means high quality wine". That context would then need to be defined in terms of another, higher order meaning, like "pleasure". The result would be a strategic positioning that communicates to the consumer (e.g. via advertising) that the higher order need of pleasure in life can be fulfilled by wine's discriminating characteristic of "AOO" through the satisfaction of high quality expectation.

This study, however, may be regarded as a starting point for a series of more profound implications regarding Greek wine industry. As we have seen, the demand for wine has recovered from the crisis over the last decade with the introduction of "new wines", produced by high quality, conventionally or even organically grown grapes of internationally known varieties. The present study shows that these products seem able to satisfy the expectations of the high-status customers who search for wines of novel origin and style.

This wine consumption trend is consistent and matches a more general trend that embraces all the food sectors and is characteristic of many consumer segments which are not purely need-driven. As in the entire food sector, the wine sector has been influenced by the philosophy of organisation and by the new paradigms of industrial quality management such as HACCP or TQM. In addition, a significant number of innovations has been introduced in grape production (for example, organic production), winery equipment and winemaking technologies, production organisation and marketing. As the driving force of the innovation process is the search for quality, the common feature of almost all the technical innovations is the preservation or improvement of quality in raw materials and throughout. Innovative behaviour, as a consequence, can be interpreted as an attempt to improve the ability of the wine industry to obtain a product of a consistent (high) standard.

In the production of fine wines, innovations are driven by attempts to improve and stabilise colour, olfactory properties, taste and other sensations and to improve the presentation of the wine itself. The marketing environment provides an opportunity for wineries to concentrate on the added value of products and utilise all the instruments of the marketing mix (e.g. charging premiums for high quality wines seemed reasonable in the eyes of the consumers of the present study). On the other hand, in ordinary wine production the innovative element also lies in the development of marketing actions aiming at the constructions of a new image and purchasing motives ("use benefits") for this kind of wine. A crucial role is played by the marketing function.

An additional important innovation is the adoption of behaviour and strategies, which are

market-oriented. Greek innovative wineries need to understand that it is no longer enough to offer wine as a traditional product. Rather, they should improve their understanding of the market needs and subsequently, the achievement of competitive advantage. Linked to this market orientation is an innovation in production organisation that may defined as a project-oriented and creative approach. Since the market accepts and even prefers organically produced wines, it appears increasingly necessary to organise the production process starting from the idea about a product as such (or even about organic winemaking), transforming the idea into "product specifics", and planning the process, including all the technological factors consistent with the product and the market where the product is to be sold.

7.3. Limitations – extensions

Different statistical approaches have been developed to enable researchers to determine the level of abstraction at which preference judgements are being made by consumers. Results have shown that people are not particularly good at recognising their own most discriminating way of evaluating, for example, the brands within a product class, nor do they recognise the level of abstraction at which their judgements are being made. This further suggests that researchers should be suspicious of self-reported rating systems inherent in many attribute models and consumer surveys (Reynolds and Gutman, 1988).

During the interviews there have been situations where interviewing techniques and procedures are unable to produce a means-end chain. This occurred, for example, because the respondent was inarticulate or was simply unwilling to answer. It also took a substantial amount of time for the interviewer to test all the techniques and develop a personal style that can produce ladders. As with any qualitative technique, lack of experience has been an overall limitation.

The study at hand attempts to demonstrate that MEC analysis provides a powerful tool for "true" benefit segmentation. The profile of the specific consumer groups can be described more in detail when it is associated with both product attributes and their corresponding use consequences. The combination of this with buying situations (see, for example, Quester and Smart, 1998) and additional behavioural variables would proved for the prediction of buying behaviour. Yet, as our sample of young people can be regarded as a rather homogeneous group with respect to demographic and behavioural variables, we expect the validity of different "true" benefits segments to improve by studying bigger and more heterogeneous groups.

The more natural step to extend the present research is to test the findings across a bigger sample of more diverse consumer types, in terms of the main organic wine purchasing motives of quality-healthiness-information acquisition-attractiveness-tastiness identified. Conjoint Analysis could be usefully integrated into the MEC approach, in order not only to determine which of the attributes related with the above mentioned motives are equally substantial to other consumer types, but also to define specific organic wine brand profiles in terms of these preferences. In addition, a more general segmentation task could be undertaken, to quantitatively define the pre-specified high-status consumer group used in the current work and explore the existence of others into the wider wine market context.

Table 1: The Attribute List Used as a Starting Point of the Laddering Method

General Appearance	Sensory characteristics 5. Taste: a sweet b. Soft-sweet c. Dry d. Rich	Price 8a. High b. Low c. Value for money	Perceived quality-related Label information		Innovativeness
Glass bottle: a. transparent b. coloured c. cylindrical			9. Wine-specific info a. No. of bottle per harvest year b. Grape variety	14. Information a. Text with information about the production	15. Wine bottle with different than the usual shape
d. squared e. recycled 2. Paper packing 3a. Size of 0.75L b. <0.75L c. >0.75L 4a. Label with good overall appearance	e. Spicy f. Velvet g. Mild h. Soft i. Pleasant 6. Aroma: a. aromatic b. fruity c. flowery 7. Colour: a. deep red		c. Alcoholic degree (%vol) 10. Dates written: a. Bottling b. Harvest c. Best before 11. Origin a. Country b. Area of production 12. Quality assurance: a. PDO/PGI label	method b. Text with information about the area of production c. "Keep until" instructions d. Consumption instructions	16. Carton boxed bottle
b. Text or design which brings in mind an image of Greek tradition	b. Scarlet c. Gold-yellow d. Yellow-green e. Clear		b. Organic label c. ISO/HACCP 13a. Brand name b. Producer's name		

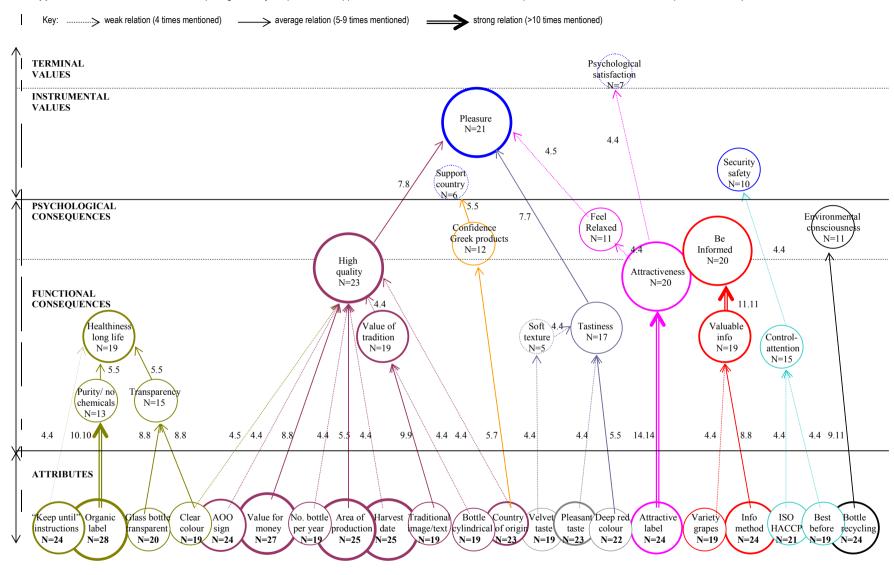
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Code de champ modifié

Appendix 1: The Hierarchical Value Map, Organic Buyers (relations mapped above cut-off level of 3, attributes important for at least two-thirds of respondents, n=28)



Appendix 2: The Hierarchical Value Map, Organic Non-Buyers (relations mapped above cut-off level of 3, attributes important for at least two-thirds of respondents, n=21)

