

Organic and conventional olive oil consumers: a comparative analysis using a customer satisfaction evaluation approach

Sandalidou E., Baourakis G., Grigoroudis E., Siskos Y.

in

Nikolaidis A. (ed.), Baourakis G. (ed.), Isikli E. (ed.), Yercan M. (ed.).
The market for organic products in the Mediterranean region

Chania : CIHEAM

Cahiers Options Méditerranéennes; n. 61

2003

pages 265-276

Article available on line / Article disponible en ligne à l'adresse :

<http://om.ciheam.org/article.php?IDPDF=800169>

To cite this article / Pour citer cet article

Sandalidou E., Baourakis G., Grigoroudis E., Siskos Y. **Organic and conventional olive oil consumers: a comparative analysis using a customer satisfaction evaluation approach.** In : Nikolaidis A. (ed.), Baourakis G. (ed.), Isikli E. (ed.), Yercan M. (ed.). *The market for organic products in the Mediterranean region*. Chania : CIHEAM, 2003. p. 265-276 (Cahiers Options Méditerranéennes; n. 61)



<http://www.ciheam.org/>
<http://om.ciheam.org/>

Organic and Conventional Olive Oil Consumers: A Comparative Analysis Using a Customer Satisfaction Evaluation Approach

Evangelia Sandalidou¹, Baourakis George¹, Evangelos Grigoroudis², Yannis Siskos³

¹ Department of Economic Sciences / Management / Marketing and Finance,
Mediterranean Agronomic Institute of Chania (MAICh), Chania, Greece

² Department of Production Engineering & Management, Technical University of Crete, Chania, Greece

³ Department of Informatics, Univ. of Peraeus, Greece

Abstract: This paper deals with the measurement of customer satisfaction where organic olive oil, the most important biological product that has recently entered the Greek food market, is concerned. For this purpose a survey was conducted in the region of Thessaloniki. This study examines consumer preferences and attitudes using multicriteria preference analysis. The implemented methodology is called MUSA (MULTicriteria Satisfaction Analysis) and takes into account that customers' global satisfaction for organic olive oil depends on five criteria: health, price/quality, packaging, specific characteristics and promotion & disposition. Effective results are provided describing customer behaviour and identifying market trends. An analysis in order to find out the strengths and weaknesses of organic olive oil compared to the conventional one is also included, contributing in this way to an effective strategic planning for the improvement of the product. Finally, recommendations are given evaluating the alternative market penetration strategies, which combined with the existing ones, could lead to the development of optimal marketing techniques for the modification of the products' characteristics in the most effective way.

Introduction

Olive farming and the production of olive oil are considered to be an important sector in European and especially in Greek agriculture, mainly due to the climatic conditions, which are suitable for this crop. Olive oil is an agricultural product of great nutritional value due to its organoleptic and biological properties as well as its taste characteristics. Greece is one of the leading olive oil producers in the world, ranking third after Spain and Italy. Greek olive oil production accounts for almost 22% of the European and 17% of the world production (FAO, 1985-2000).

Nowadays, people throughout the world, especially those with a high standard of living, seem to prefer foodstuffs that are produced and processed by natural methods. Greek consumers in particular, according to previous consumer research, seem to be more and more sensitive and, at the same time demanding, when it comes to their nutrition and they seek for products of organic origin as much as possible. Unfortunately, until recently, customers' need for qualitative products was not considered to be as much important in the agricultural sector. Producers cared about the production volume and regarding customers all that mattered was the provision of products with reasonable prices (European Union Council, 2000). However, things seem to have changed and customer satisfaction plays an increasingly significant role in order to keep up with people's demand for safe and good quality food.

Organic olive oil, the most important biological product in Greece, is a product that could keep up with customers' needs for safe and quality food, while at the same time could provide higher prices to producers. For a successful penetration of organic olive oil into new markets, however, continuous improvement is required. Achieving a maximum of quality is something that would be a guarantee for the economic survival of the sector in the face of competition (Fotopoulos. and Pantzios, 1998). This could be done through evaluating first customer satisfaction, which is the objective of this research. Customer satisfaction is considered to be a modern approach for quality, and quality is a term that needs to be defined. People tend to prefer products from certified food companies (ISO 9000), notifying the need to improve quality. Since the connection between quality and customer satisfaction is becoming obvious, measuring customer satisfaction could lead to correction actions in order to raise quality. In this way, customers' preferences and expectations regarding certain characteristics of the product are provided, allowing for its further market development.

Customer satisfaction of course, is a notion that has recently started to concern the agricultural sector and it is worth mentioning that it is considered to be a pioneer in the field of agricultural products, let alone organic ones.

For this purpose a survey was conducted in the region of Thessaloniki and a sample of randomly selected organic olive oil consumers were asked to express their opinion towards some characteristics (health, price in relation to quality, package, specific characteristics, promotion & disposition) of organic olive oil. A comparative analysis between organic and conventional olive oil is also included, in order to find out the strengths and weaknesses of organic olive oil compared to the conventional one. The method that was developed for measuring and analysing customer satisfaction is called *MUSA* (*MULTICriteria Satisfaction Analysis*). It is a multicriteria ordinal regression model and its basic assumption is that customer's global satisfaction depends on a set of consumer-assessed criteria, which represent the characteristics of the product.

The paper is organised as follows: After the introduction presented in section 1, a brief description of the product and the current situation of organic olive oil in Greece is given in section 2. The meaning of customer satisfaction and its need to be measured are provided in section 3, along with some alternative methodological approaches. The methodological framework, upon which the whole study was based, is included in the same section. Section 4 provides the results of the research. Finally, some recommendations about the improvement of the product, as well as concluding remarks, are outlined in section 5.

Organic Olive Oil in Greece

Organic farming is indisputably becoming of growing importance in the agricultural sector of many countries. Market demand for organic products has expanded rapidly over the past decade (De Haen, 1999).

Organic cultivation of the olive tree began in Greece in the Prefecture of Messinia in 1988. In the following years its evolution was spectacular and since then serious efforts have been made in most parts of the country to continue the trend (Sgouros, 1997). The organic olive tree and therefore the production of organic olive oil possessed the first place in 1999, since olive groves covered 56,7% of the total organically utilized area. The high percentage reveals the growing demand of Greek consumers for healthy and nutritional food with high quality and safety characteristics (Lampkin and Padel, 1994).

Many advantages, both from an environmental and a social-economic point of view, are offered through the organic cultivation of the olive tree (Sgouros, 1997). Among them, the most significant are:

- *Protection of the environment* through not using chemicals during the cultivation techniques. In addition to that, organic olive oil is mostly packaging in glass bottles (instead of plastic ones used in the conventional olive oil), contributing to their better recycling.
- *Economic advantages*. From the producer point of view, it was discovered that the product is sold at higher prices, at least 20-25% higher than the conventional olive oil, bringing significant profits. A lot of benefits can also arise through the export activities, which biological olive oil is involved in.
- *Maintenance of the social structure*. The olive tree is grown in mountainous, semi- mountainous or the so-called disadvantageous regions and it is a non-demanding crop, which means that it can survive even under these unfavorable conditions. Organic farming provides a remarkably higher income per hectare to the farmers, which becomes a strong incentive for them to remain in these regions.
- *Protection of producers' and consumers' health*. Biological products (olive and olive oil) are products with no pesticide residues. They are obtained via cold pressing of olives. In this way, all their nutritional substances are preserved leading to products of high nutritional value.

Apart from the benefits, there are also some constraints regarding organic farming. On the one hand, farmers experience some loss in yields during the phase of conversion to organic farming (Van Der Smissen, 2000). Sometimes it takes a long time, almost years to restore the ecosystem to the point where the organic production is possible. The high cost of production is another difficulty for the farmer. On the other hand, some consumers do not believe that organic agriculture can improve food security and some others do not even know what an organic product is. That is why there is a need for better access to market information. Actions should be also taken in order to support consumer confidence. For this reason Greece has adopted a system for controlling and certifying organic products. The Organic Products Bureau was set up in 1991 undertaking the application of the European Regulations. In 1993, permission was given to two private organizations: "DIO" and "SOGE". "Fysiologiki" was the third certifying organization established in 1994 (Kaldis and Gardeli, 1996).

Greece, which has many competitors concerning conventional agricultural products, is a country that can easily exploit the previously referred advantages of organic cultivation of the olive tree and thus the production of organic olive oil. However, efforts should be made in order to continually improve the product. Therefore, customer satisfaction measurement could be very helpful in evaluating the necessary market penetration strategies.

Customer Satisfaction Evaluation Methodology

Nowadays, more and more organizations have come to understand the importance of customer satisfaction. In fact, it has long been recognized as a standard of performance and excellence for any business organization. Customer satisfaction is considered to be a modern approach for quality and a dynamic parameter of business organizations of all types throughout the world. It is regarded as a necessary condition for continuous improvement of modern enterprises as well as determination of possible "opportunities" in a particular market, just like the case of the agricultural market, and therefore its evaluation is of growing interest.

A lot of definitions were given for customer satisfaction but according to Hill (1996), it is considered to be “a measure of how an organization’s total product performs in relation to a set of customers expectations”.

Measuring customer satisfaction provides an effective, direct, meaningful and objective assessment of customers’ preferences and expectations. Since changes in the current market can affect these preferences, the existence of a permanent customer satisfaction barometer is considered necessary. Particularly in agricultural products, customer satisfaction can lead to customer loyalty. The philosophy according to Israel (1997) is to “never take customers for granted, but actively cultivate long-term relationships”.

Several studies have been conducted focusing on consumers’ behavior regarding Greek agricultural products. In the case of olive oil specifically the most common statistical techniques used were frequency distributions, cross tabulations, Anova, factor analysis and discriminant analysis (Baourakis *et al*, 1995, Siskos *et al*, 1995, Baourakis and Apostolakis, 1999, Siskos *et al*, 2001, Baourakis *et al*, 2002).

Previous consumer research also showed that there is a real need for improving olive oil quality. However, extensive research has shown that the customer satisfaction evaluation problem has not been considered so far in the agricultural sector, let alone the recently developed market of organic products. Therefore, the present study on organic olive oil can be considered to be a pioneer in the specific field of organic products.

The method that was developed for measuring and analyzing customer satisfaction is called MUSA¹ (MULTicriteria Satisfaction Analysis). It is a preference disaggregation model based on the principles of multicriteria analysis using ordinal regression techniques. Its main objective is the aggregation of individual preferences into a collective value function. More specifically, it is assumed according to Grigoroudis and Siskos (2001) that consumer’s global satisfaction can be explained by a set of criteria or variables representing the product’s or service’s characteristic dimensions.

Results of the Study

Survey Design

The survey was conducted in the region of Thessaloniki in Greece between November 20th - 30th, 2000. A total of 131 organic olive oil consumers were interviewed in special locations selling only organic products in 2 supermarkets. During the survey, each customer was asked through a simple questionnaire to express his/her evaluations for a set of criteria concerning organic and conventional olive oil. Likert scales were used to measure customers’ judgments. The questionnaire was addressed to those customers who were aware and have already tasted organic olive oil.

The assessment of a set of satisfaction criteria and the definition of the value hierarchy is one of the most important stages of the implemented methodology (Grigoroudis and Siskos, 2001). The main satisfaction criteria include:

- Health (the degree that the product contributes to people’s health).

¹ MUSA methodology is fully described in the following paper: Grigoroudis, V., and Y. Siskos (2001), Preference Disaggregation for Measuring and Analysing Customer Satisfaction: The MUSA Method, *EJOR*, *European Journal of Operational Research* (to appear)

- Price/quality (how expensive/cheap the product is in relation to its quality).
- Packaging (packaging material, capacity, label information, practicality, resistance and image).
- Specific characteristics (colour, flavour and taste) and
- Promotion & disposition (information & advertising, availability & access)

The aim of this survey was the identification of customer preferences and the determination of the weak and strong points of organic olive oil, compared to those of the conventional product, thereby contributing in this way to a strategic planning for the improvement of the product, and finally the identification of market segmentation.

Global Satisfaction Analysis

According to the results of the basic criteria (which are presented in Appendix I), it is observed that the health criterion is far more important than the other ones (almost 36%). This shows how sensitive customers are in terms of nutrition. The packaging and certain specific characteristics have the same significance and were awarded a weight of 20% each. The remaining criteria do not seem to play an important role to customers' preferences (Figure 1).

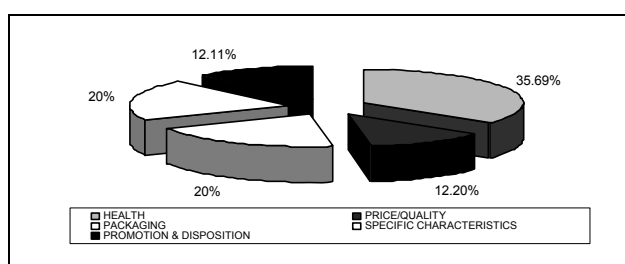


Figure 1. Weights Criteria of Organic Olive Oil

As far as the average global satisfaction index is concerned, it has a relatively satisfactory value of over 78% with margins for improvement. This is mainly due to the criterion of health, which has the highest average satisfaction index (96,7%), while it is the most important satisfaction dimension for customers. The criteria of packaging and specific characteristics have also quite high satisfaction indices (78,1% and 84,1% respectively). However, customers do not seem to be satisfied by the promotion and disposition of the product (average satisfaction index is 31,3%), even though 12,1% of the respondents do not consider this particular criterion important. There are still people who do not even know what organic products are. Figure 2 better illustrates how dissatisfied customers seem to be from the promotion & disposition as well as the price of the product. The black line represents the global satisfaction index and the difference among the various criteria can be easily seen.

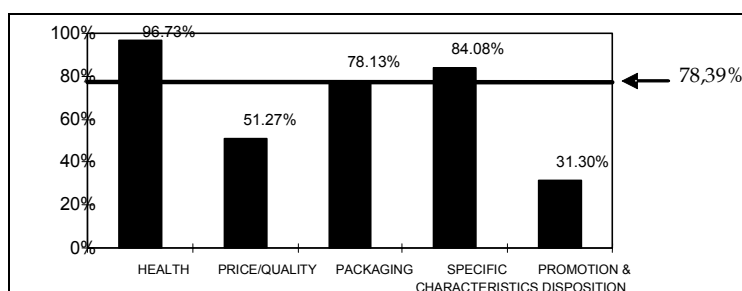


Figure 2. Satisfaction Indices of the Criteria of Organic Olive Oil

The negative value of the average demanding index (-47,2%) shows indeed the fact that customers are not so demanding regarding the particular product. Customers' declare to be satisfied from organic olive oil, even though they are not happy from all the product's dimensions.

The action diagram in Figure 3 indicates the strong and week points of the product. The perceptual map presented below reveals that there is no dimension in the critical quadrant and so no immediate improvement is required. However, attention should be paid to the criterion of promotion & disposition as it can be characterized as a potentially critical satisfaction dimension. Customers seem to be dissatisfied (low performance) from it as well as from the price in relation to quality. Health on the other hand, is a strong point and is considered to be a competitive advantage of organic olive oil (high importance and high performance).

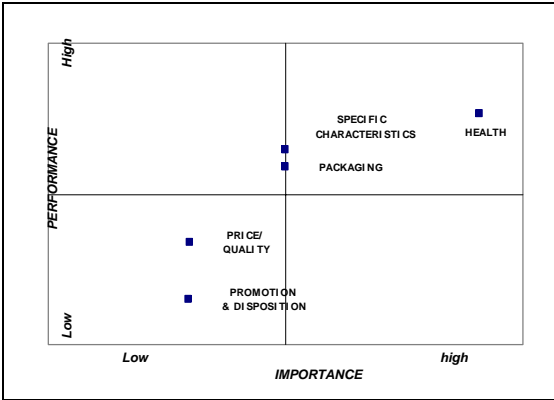


Figure 3. Relative Action Diagram for Organic Olive Oil Criteria

Therefore, the improvement priorities according to the improvement diagram in Figure 4, should be focused on:

The promotion & disposition of organic olive oil, given that the average satisfaction index is particularly low. Consumers are not very demanding and also no great effort is required for its improvement due to its high effectiveness.

The criterion of price/quality, where the satisfaction index allows significant margins for improvement with no particular effort.

The packaging of the product, since it is very close to the 1st priority quadrant, too.

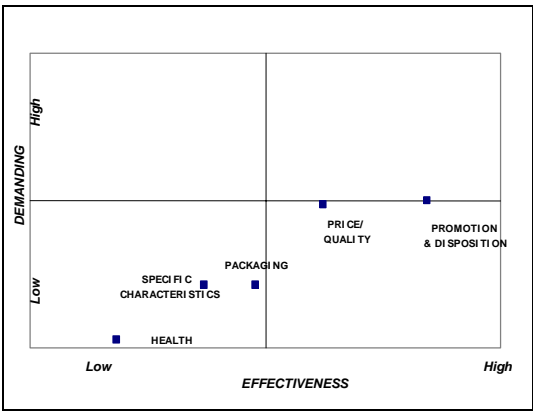


Figure 4. Relative Improvement Diagram for Organic Olive Oil Criteria

It is worth mentioning that efforts should be made in order to maintain the high satisfaction level of the health criterion, since it is responsible for the satisfactory global performance of the product.

Criteria Satisfaction Analysis

The criteria satisfaction analysis confirms the conclusions of the previous section. Generally, the product's performance is quite high in these satisfaction dimensions, which are considered to be important by the customers. The partial analysis that follows could determine more specifically the strengths and weaknesses of organic olive oil. It fact it could show exactly which characteristics should be paid more attention to, for the improvement of the product. Taking into consideration the detailed results in Appendix II, it can be concluded that:

The material, the capacity and the resistance are the main competitive advantages of the organic olive oil's packaging, justifying its relatively high satisfaction index. Customers are quite satisfied from the remaining characteristics too, but they do not consider them to be as important as the former.

Customers are very satisfied from the colour and taste of the product. Even though flavour also has quite a high average satisfaction index, it is not a significant characteristic.

The low level of satisfaction, as far as the promotion & disposition is concerned, is mainly due to the subcriterion of information and advertising of the product. Particular attention should be paid to that, since customers regard it as very important, but on the other hand they are completely unsatisfied. Customers' demand for being informed about the product's attributes is comprehensible. Margins for improvement also exist for the characteristic of availability and access, even though it is not very significant.

The action diagram in Figure 5 indicates that the information & advertising of the product is really inefficient. The fact that it is located in the critical quadrant simply shows the need for immediate improvement. Apart from that, image, label information and practicality are the weak points of the packaging and could be improved. On the other hand, the colour and packaging material are the strong points of the organic olive oil.

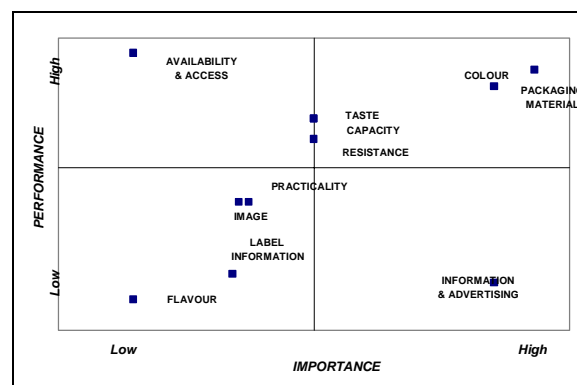


Figure 5. Relative Action Diagram for Organic Olive Oil Subcriteria

According to Figure 6, the improvement efforts should be focused on the following subcriteria in order of precedence:

Information & advertising of the product (the critical dimension). Customers are very demanding where the particular subcriterion is concerned indicating that extended efforts should be made so as to raise the satisfaction level.

Label information should be more adequate in order to meet customer demand and yet efforts made towards this direction seem to be rather minimal.

Margins for improvement also exist for the practicality and image of the product. Their high effectiveness means that no great effort is required to achieve this purpose.

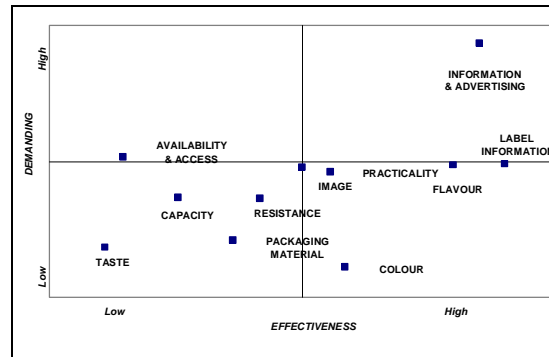


Figure 6. Relative Improvement Diagram for Organic Olive Oil Subcriteria

Comparative Analysis between Organic & Conventional Olive Oil

Apart from organic olive oil, customer satisfaction measurement was applied also in the case of conventional olive oil. What follows is an analysis in order to find out the strengths and weaknesses of organic olive oil compared to the conventional one, contributing in this way to an effective strategic planning for the improvement of the product.

In general, customers seem to be more satisfied from organic olive oil even though the difference is very small (only 2,8%). More specifically, according to Figure 7, they seem to prefer organic olive oil in terms of health and its specific characteristics, while they find conventional olive oil to be better packaged (due to the fact that they are less demanding for this criterion in this case) and promoted and have lower price related to its quality. The trade-off between health and promotion & disposition between the two products is worth mentioning. Even though olive oil has won a privileged position in human nutrition, due to its biological and nutritional features, organic olive oil is a chemical-free product, which satisfies better customers demand for quality food. On the other hand, the existing distribution network and advertising campaigns concerning the conventional olive oil favour its consumption, making clear at the same time the need for better promotion regarding the organic product.

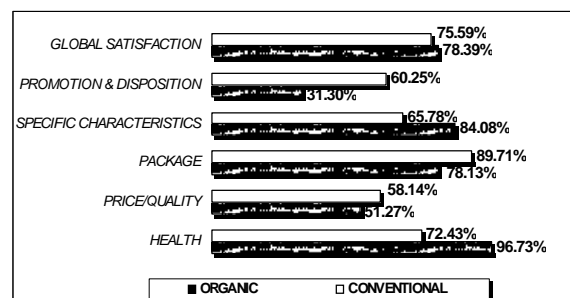


Figure 7. Satisfaction Indices of Organic & Conventional Olive Oil

Comparing now the significance of the criteria for both products, it becomes obvious that there is a trade-off in terms of the criteria of health and package. That is, customers consider the criterion of health to be far more important when organic olive oil is concerned. People expect to

have a quality product with excellent nutritional features, which seem to be the main reason for its consumption. Exactly the opposite happens for the package of the products, which seems to be more significant in the case of conventional olive oil (Figure 8).

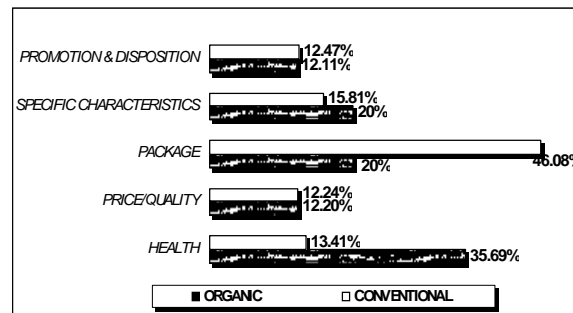


Figure 8. Criteria Weights of Organic & Conventional Olive Oil

The aforementioned results are also justified by looking at the global criteria and subcriteria frequencies of the two products, presented in Appendix III. It is worth saying that customers prefer mostly organic olive oil for its colour and its taste. This can be easily understood, since the natural methods, through which organic olive oil is produced and processed, attribute special and distinct characteristics (colour, taste and flavour) to this product. On the other hand, customers are very satisfied from the availability and access of conventional olive oil, due to its established distribution network. The inefficient distribution channels along with the limited available information are the main weaknesses of the organic olive oil. Since, information and advertising of organic olive oil plays a really important role for people, then most efforts should be focused on this direction.

Conclusion and Recommendations

The above analysis makes clear what are the strong points regarding organic olive oil and what efforts should be made in order to improve the weak points of the product. All the recommended strategies provide alternative solutions, which combined with the existing marketing strategies, could lead to the development of optimal marketing techniques for the modification of the product's characteristics in the most effective way.

The organic cultivation of the olive tree offers many advantages at both the socio-economic and environmental level in Greece. It is the most important biological product and is considered to be a promising one for penetrating into new markets. The present study has attempted to explore customers' preferences regarding organic olive oil, aiming at developing a strategic plan for the continuous improvement of the product. The improvement priorities, taking into consideration customers' demand and the required effort, should be focused on the following in order of precedence:

Promotion & disposition seems to be the greatest weakness of organic olive oil. On the contrary, conventional olive oil seems to be better promoted than the organic one. The existing distribution network and advertising campaigns concerning the conventional olive oil favour its consumption. Even though people are aware of the nutritional and organoleptic attributes of conventional olive oil, unfortunately, there is a large number of people who still do not know what an organic product is. In addition to that, customers are uncertain about the organic origin of the product. Therefore, systematic provision of information mainly through advertising is necessary. The product needs to be better promoted enhancing consumers' awareness of its fea-

tures and nutritional content. Informing people about the quality standards could be a good start for building their confidence. Reliable systems of monitoring and verification for certifying the organic nature of olive oil are also necessary. Apart from this, customers want to find the product easily, thus, the selection of optimal channels of distribution could contribute to better access to the product.

As far as the price is concerned, some people are willing to pay the high price, since they take into account organic olive oil's contribution to a healthy diet. Nevertheless, there are people, who cannot afford to pay for the product. In this case, a flexible pricing strategy could be followed (bonus, special offers, discounts, etc), if possible. It should be noticed that the price is expected to be reduced if the level of the production rises, through some government policies and price support.

Even though people seem to be quite satisfied from the way the product is generally packaging, attention should be paid to the label of the packaging. More specifically, the label is characterized as unsatisfactory, since it doesn't provide enough information to the consumer.

The special product's characteristics (colour, taste and flavour), are another consideration but they are difficult to quantify objectively. People seem to be satisfied from them and efforts should be made to maintain and improve, if possible, the level of customer satisfaction.

Consumers' need for safe and good quality food has increased during the last few years and thus, healthiness and nutritional value are the basic reasons given by consumers for purchasing organic olive oil. But, since changes in the current market can affect these preferences, the existence of a permanent customer satisfaction barometer is considered necessary and extensive research is required in order to keep up with consumers' demands. To sum up, if suitable actions are taken at a national level, then organic olive oil could be a strategic product, bringing Greece to an advantageous position in the international market over the coming years.

References

- [1] Baourakis, G., Assessment of Consumer Attitudes and Perceptions Concerning Greek Olive Oil. *The Journal of Euro-Asian Management*, 2001 (forthcoming).
- [2] Baourakis, G., Matsatsinis, N.F. and Y. Siskos, Consumer Behavioral Analysis Using Multicriteria Method, in Janssen, J., Skiadas, C.H. and C. Zopounidis (eds), *Advances in Stochastic Modelling and Data Analysis*, Kluwer Academic Publishers, pp. 328-338, 1995.
- [3] Baourakis, G. and Y. Apostolakis, A Statistical Assessment of Consumers' Criteria Regarding Organic Agricultural Products: The Case of Organic Olive Oil. *Foundations of Computing and Decision Sciences*, Vol. 24, No 1, pp. 21-31, 1999.
- [4] Baourakis G., Drakos P., & Spyridakis D., Data analysis for the identification of Greek distribution channels: The case of organic olive oil, *Foundations of Computing & Decision Sciences*, 2002, (forthcoming).
- [5] De Haen, H., *Production and Marketing Quality Organic Products: Opportunities and Challenges*. Sixth IFOAM Trade Conference: Quality and Communication for the Organic Market, Florence, 23 October, 1999.
- [6] European Union Council, *Quality into Multififormity: A Challenge for the European Agriculture*, Non-formal meeting of the Agricultural Council, Evora, May 28-30, 2000.
- [7] Fotopoulos Chr. and Chr. J. Pantzios An Assessment of Current Conditions and Perspectives of the Organic Farming Sector in Greece. *Agricoltura-Mediterranea*, Volume 128, No 2, pp. 142-152, 1998.
- [8] Grigoroudis, V., and Y. Siskos, Preference Disaggregation for Measuring and Analysing Customer Satisfaction: The MUSA Method. *EJOR, European Journal of Operational Research*, 2001 (to appear).
- [9] Hill, N., *Handbook of Customer Satisfaction Measurement*. Gower Publishing, Hampshire, 1996.

- [10] Israel, J.T., Feedback to Improve Core Customer Relationships: A Framework to Implement Face-to-face Surveys. ASQCs 51st Annual Quality Congress Proceedings, 1997.
- [11] Kaldis, P.E. and C.L. Gardeli, *Techno-economic issues of organic farming in Greece*. Panhellenic conference for the horticulture in the market of 2000, Ierapetra, 31 October-2 November, 1996.
- [12] Lampkin, N. H. and S. Padel, *The Economics of Organic Farming: An International Perspective*, CAB International, 1994.
- [13] Sgouros, S., Greek Olive Oil: Current Situation and Perspectives. *DIO: A Magazine for Organic Farming*. Vol. 2, April-June, 1997.
- [14] Siskos, Y., Grigoroudis, E., Matsatsinis, N.F., Baourakis, G., and F. Neguez Comparative Behavioral Analysis of European Oil Consumers, in Janssen, J., Skiadas, C.H. and C. Zopounidis (eds), *Advances in Stochastic Modelling and Data Analysis*, Kluwer Academic Publishers, pp. 293-310, 1995.
- [15] Siskos, Y., Matsatsinis, N.F. and G. Baourakis, Multicriteria Analysis in Agricultural Marketing: The Case of French Olive Oil Market. *European Journal of Operational Research*, Vol. 130, pp. 315-331, 2001.
- [16] Van Der Smissen, N., *Organic Farming in Greece*. Organic Europe. Country reports: Greece, 2000, [http://www.organic-europe.net]

Appendix

Table 1. Global Satisfaction Results of Organic Olive Oil

Criterion	Subcriterion	Weight	Average Satisfaction Index	Average Demanding Index	Average Improvement Index
Health	-	35,69%	96,73%	-66,378%	1,168
Price/Quality	-	12,20%	51,27%	-1,611%	5,943
Packaging	Packaging Material	28,81%	86,57%	-58,353%	3,87
	Capacity	16,67%	78,87%	-26,91%	3,523
	Label Information	12,22%	54,16%	-1,784%	5,601
	Practicality	13,09%	65,65%	-8,327%	4,497
	Resistance	16,67%	75,74%	-27,736%	4,044
	Image	12,55%	65,61%	-4,344%	4,314
	Total	20%	78,13%	-40%	4,374
Specific Characteristics	Colour	54,28%	94,12%	-77,823%	3,19
	Flavour	12,39%	73,51%	-3,109%	3,281
	Taste	33,33%	91,03%	-63,34%	2,991
	Total	20%	84,08%	-40%	3,183
Promotion & Disposition	Information & Advertising	87,60%	2,91%	86,301%	85,052
	Availability & Access	12,40%	34,62%	3,239%	8,108
	Total	12,11%	31,30%	0,309%	8,322
Global Satisfaction	-	-	78,39%	-47,198%	-

Table 2. Results of Organic Olive Oil Subcriteria

Criterion	Weight	Average Satisfaction Index	Average Demanding Index	Average Improvement Index
Health	35,69%	96,73%	-66,378%	1,168
Price/Quality	12,20%	51,27%	-1,611%	5,943
Packaging	20%	78,13%	-40%	4,374
Specific Characteristics	20%	84,08%	-40%	3,183
Promotion & Disposition	12,11%	31,30%	0,309%	8,322
Global Satisfaction	-	78,39%	-47,198%	-

Table 3. Criteria Satisfaction Results for Organic & Conventional Olive Oil

Criterion	Subcriterion	Organic Olive Oil		Conventional Olive Oil	
		Weight	Average Satisfaction Index	Weight	Average Satisfaction Index
Health	-	35.69%	96.73%	13.41%	72.43%
Price/Quality	-	12.20%	51.27%	12.24%	58.14%
Package	Package Material	28.81%	86.57%	13.21%	64.39%
	Capacity	16.67%	78.87%	13.21%	73.41%
	Label Infor-mation	12.22%	54.16%	12.61%	52.36%
	Practicality	13.09%	65.65%	31.91%	86.22%
	Resistance	16.67%	75.74%	16.67%	74.44%
	Image	12.55%	65.61%	12.40%	60.78%
	Total	20%	78.13%	46.08%	89.71%
Specific Characteristics	Colour	54.28%	94.12%	13.06%	59.84%
	Flavour	12.39%	73.51%	21%	31.95%
	Taste	33.33%	91.03%	65.94%	39.84%
	Total	20%	84.08%	15.81%	65.78%
Promotion & Disposition	Information & Advertising	87.60%	2.91%	12.35%	43.85%
	Availability & Access	12.40%	34.62%	87.65%	96.00%
	Total	12.11%	31.30%	12.47%	60.25%
Global Satisfaction	-	-	78.39%	-	75.59%