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HOW SMALL FIRMS IN THE HIGH QUALITY FOOD SECTOR CAN IMPROVE THEIR BUSINESS PERFORMANCE: THE LIGURIAN OIL CASE STUDY.

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This paper proposes a methodology to create market value in the high quality food sector. The research starts from the consumer's opinion about the attributes characterizing a high quality food, then a market research shows which are the attributes able to increase the good value in the different distribution channels. The paper shows how attributes are market and channel dependent, therefore attribute able to create value in certain markets and channels are uninflected in others.

The methodology proposed is concretely applied on a case study: the Italian Extra virgin olive oil sector with a particular focus on the Ligurian olive oil, one of the most appreciated Italian oil. Likewise the methodology can be implemented form many other high quality food.

1 INTRODUCTION

The Ligurian extra virgin olive oil (from here called “Ligurian oil” or “oil”) is a potential high quality oil because is composed from specific types of cultivar, such as “Taggiasca” and “Lavagnina”. These varieties, that over the centuries have adapted to the Ligurian climate, are able to produce in that area an oil with low acidity, little yield, but a sweet flavour that makes it special and highly appreciated (Casale et al., 2007). The types of cultivar are not the only parameter to achieve the best quality, it is also necessary an accurate olive processing that include less than 24 hours between harvesting and milling, a controlled olive and oil storage and so on. Unfortunately the Ligurian region is characterized by hills that reduce the possibility to mechanize the harvesting, and reduce the number of plants in a hectare and the overall production, in fact the Ligurian region accounts for about the 1% of olive and oil production in Italy. Moreover the average dimension for each farm is much smaller than the most productive Italian region and other countries. Therefore, considering the morphology and farm size, the production cost for the Ligurian oil is greater than in the other regions.

If the production cost and the intrinsic and extrinsic quality are greater it is expected that the final price for the customer will be greater. The purpose of this article is, starting from the consumers’ opinions, to assess how the different attributes of the oil and the sales channel concur to make the price. In this way is possible to understand how is possible to “create the value” necessary to pay back the production cost and to create gain for the farmers.

2 METHOD

Like previously indicated the Ligurian oil has, compared to the other Italian oil, both a greater production cost and premium quality features. In order to reap a premium price from the market is important to determine the main actions to increase the sale price without decrease the market share. To obtain this information a series of interviews and market researches have been performed to assess which elements are able to create value. Finding these elements means to understand which are the attributes receiving a premium price from the customers. Examples of these elements, attributes, are: physical features (acidity, cultivars), certifications, packaging feature etc. Since different consumers have different sensibilities coming from their education, age, incomes (Saba and Messina; 2003) they are willing to pay more for different attributes. Allowing that oil with the appropriate attributes is available for the customer willing to pay for them means “create the value”. (Figure 1)

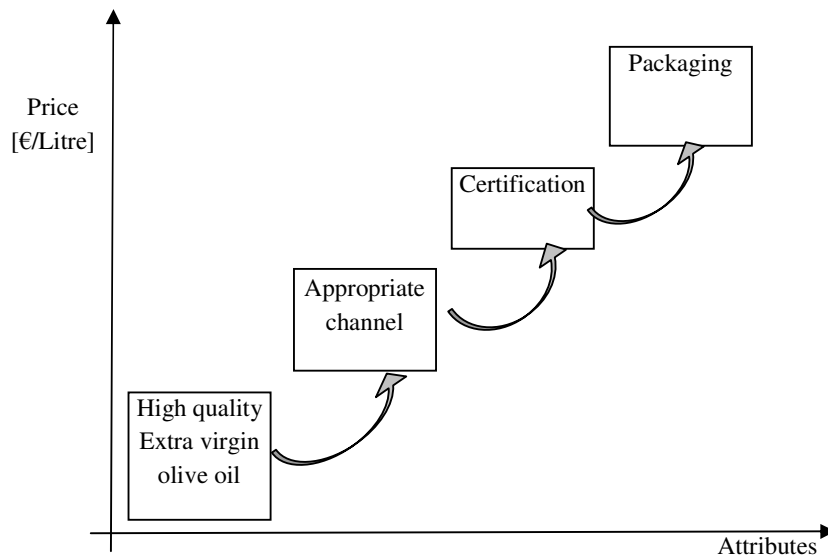


Figure 1 - How is possible to create value in the market oil

To create value in this food sector it is possible to pursue the methodology here exposed. In this paragraph the methodology is theoretically explained, whereas in the following sections there is an example of implementation with the Olive oil Case.

Enforcing the methodology is important to keep in mind that it is possible to classify attributes in two basic classes:

1. Attributes for which the consumer are consciously willing to pay more, for example food characterized by health benefit (Bower et al, 2003);
2. Attributes for which the consumer are not direct consciously willing to pay more but that receives a premium price, for example the packaging.

The common approach to explore the first class of attribute is by a well structured questionnaire, while for the second class by a focused Market analysis.

Customers are able to understand the intrinsic and extrinsic attributes (Roosen et al., 2007) for a certain product by different ways; so they can be ranked:

1. Personal advice: the customer receives information from the grocery or wine shop owner (or shop assistant) that considering the customer needs and desires can suggest an appropriate oil
2. Physical contact and the physical characteristics: the customer can appreciate the packaging and all the attributes by looking and touching the bottle
3. Brands and certificates; they can guarantee certain attributes (for example that the oil is organic)
4. Advertisements from mass media, friends and so on

In order to analyse this food sector the following methodology has been designed and developed.

The main steps can be listed as follow:

1. Comprehend the most important attributes of the product that can be used as a strength point respect to other similar goods. In this area the right information can be correctly arisen only by expert and qualified persons like: international literature, producers and sellers
2. Asses the consumers' conscious attitude toward the product asking with direct interview designed to define costumers' feeling of the product, the most important characteristics, the preferred distribution channel and so on.
3. Introduce possible new attribute with creative tools developed in the quality management field like brainstorming, SWOT analysis, relation diagrams, fishbone diagrams and so on trying to define the bigger amount of statistical data related to the attributes emerged.
4. Compare the list of attributes emerged in step 2 with those emerged in step 3 in order to define optimal combination of best "product attribute" with "consumer willing to pay for them" and related distribution channel

Section 3 summarises the results of the interviews to the consumers and section 4 summarises the results from the market analysis. To assess how the value is created in the market we listed the most important attributes of an oil. A statistical analysis indicates the correlation between the attributes (for example the DOP¹ certification) and the price. To define which subtype of oil should go to a specific sales channel the market analysis is subdivided in the three main channels (physical, Italian on line, US online).

¹ DOP is the acronym of "Denominazione di Origine Protetta", the Italian language version of PDO (Protected designation of origin)

3 THE CONSUMERS' INTERVIEWS

3.1 Method

It has been decided to perform the interview at food exhibitions because the consumers in this contest look for high quality food and manifest a proactive attitude. To concretely assess the conscious consumers' attitude toward the oil, a questionnaire, prepared from the Polytechnic of Milan research group, has been submitted. The one page questionnaire was composed by open and closed questions whose results are showed in paragraph 3.2. The typical situation was that each questionnaire was fulfilled by married couple or singles (representing the type of decision maker in the mass goods sectors).

3.2 Results

Analysing the answers to the proposed questionnaire the consumers' attitude toward the olive oil and its preferred attributes can be defined. Consumers give value to well defined attributes, most related to the "origin of the product"; this is consistent with the literature (Siret and Issanchou; 2000).

Considering the Figure 2 it is possible to recognize the attributes related to the origin are:

- Guaranteed origin: 25%
- DOP: 17%
- Supply chain traceability: 12%

The sum of this attributes is equal to 54% and also "the traditional food processing (23%)", that is related to this aspect, can be added. This is a fundamental indication: to increase the value of an oil is necessary to show the strong link with its territory. This has been recognised also in the market research. These interviews explain also that a number of attributes important for the producers do not create value for the consumers. An example is the acidity that seems does not create value in the interviews and in the physical market either.

After this main consideration coming from the field survey a market research has been conducted to analyse overall data distinguishing different distribution market used.

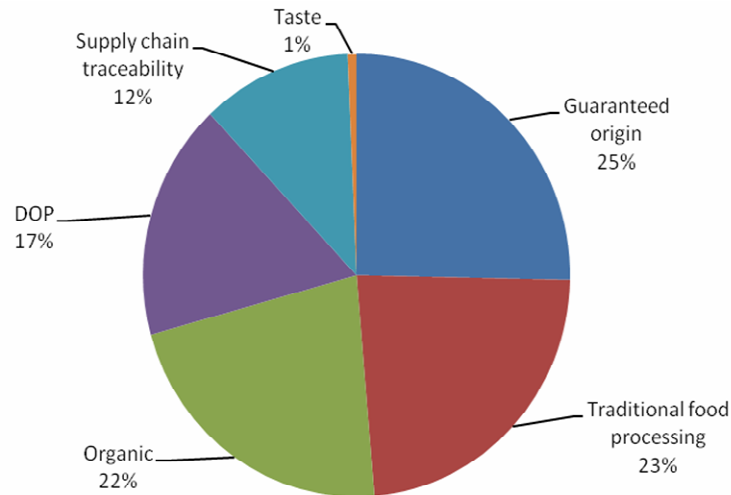


Figure 2 Characteristic for a high quality oil

4 MARKET ANALYSIS

4.1 Method

After having considered the consumers' opinions in this section will be exposed how the market is able to create value for the consumers. In order to understand how the value is created in the oil market a statistical analysis based on 1085 collected records will be performed in the following paragraphs. In this way is possible to quantify also the attribute that consumers are not consciously willing to pay for them and how the attribute create value in the different channels.

The main difference emerged is the analysis is among physical and web based channel in fact the overall records have been broken down as follow:

- Physical channels (471 records)
- On-line channels (614 records)
 - Italian Web-sites (361 records)
 - United States web site (253 records)

Considering the literature, the producers and the specific characteristic of each channel is possible to write a list of attribute just to be sure to consider all the important attribute In order to suggest the best approach to apply the proposed methodology to other food sectors is useful to prepare a draft of the attributes list and start with the market research to realize if the list is appropriate and, in case it is not, update the list with new factors.

4.2 Results

4.2.1 Sales channels

Physical channels

Physical shops have been visited in the North of Italy (mainly in big cities) in order to control the price of the oil sold. As a general comment is important to consider that the mean price are characterized by a great variance due to the type of shop providing the oil, in particular the average price for oil in a Wine shop or a Grocery (22 [€/Litre]) is three or four time the price of an oil sold in a supermarket (6 [€/Litre]), therefore in case of a market strategy that wants to increase the final price of the oil these channels represent the best environment.

On line channels: Italian web sites

After the physical channels also the on-line channels has been investigated. It is important to recall how in this channel there are great opportunities, due to a global exposition and is potential growth. (Politecnico di Milano, 2006). Moreover in a web site it is easy putting videos (about, for example, the olive grove and the olive pressing), pictures and texts showing the feature of the product and, how emerges from the interviews, the link between the product and the territory. Moreover in literature how consumers are willing to pay more for:

- traditional foods (Di Marco et al, 2005);
- food characterized by health benefit (J.A. Bower et al, 2003), (Rossen et al, 2007);
- organic products (Crescimanno et al, 2002).

It is important to notice that a web site can provide more information than a label also because the web site is not subject to the rigid legislation that controls the labels. Considering that the investment necessary to enter in the channel are supportable by any farm, it is important to assess its potentiality. Also in this channel the average price for oil in a Wine shop or a Grocery is three or four time the price of other bottles of oil (usually sold by olive pressers or olive millers).

On line channels US web sites

To enhance the assessment of the on line channel also the US on line oil market has been also investigated. Considering that the object of the investigation is the Italian Olive oil the retailers in the US market do not include the typical players involved in the production: Olive presses, farms, oil mills. Moreover the typical players in this market are the groceries and the generalist sellers.

The average value 33.90 [€/Litre] represents a very important valorisation of the product, but the most important result is that the value in this channel is obtained by different attributes compared to the Italian on line channels, like showed in the following paragraphs.

4.2.2 *The influence of the product origin: the regionality and the region of origin*

The first characteristic of the oil that will be analyzed is its origin, the most important characteristic emerged from the interviews (section 3.2). The Italian law provides that the label shows where the oil has been bottled. These information, if alone, do not indicate where is the origin of the olives and either where the olives have been milled. Nevertheless it is possible to know, in some case, the origin of the olives, by some certification (like DOP) or by voluntaries indication on the label, for example: “made with 100% Italian olives”.

In the physical channel is rare to find where the olives used to make the oil come from., therefore from the data analysis is possible to draw the following consideration:

- if the origin of the oil is indicated and referred to a specific region the price increases, usually doubles. This situation is coherent with the literature and the interviews because when the region is indicated the oil gain the attribute of “typicality”,
- inside the oil with the know region the Ligurian attribute doesn't increase the price, in fact the price of the Ligurian oil is close to the price of the other regional oil.

This information is useful to plan an effective market strategy, focused on the link between the product and the territory.

4.2.3 *The influence of the oil characteristics*

After analyzing how the origin influences the price it is important to note that the two main intrinsic features (acidity and cultivars) don't concur to create value in the physical channel, but create value in the on-line market.

As regards the acidity within the analysis is possible to recognize how in the physical channels the low acidity oil (≤ 0.5 and ≤ 0.3) are sold at a price lower than the average of the channel. This situation can be explained considering that many oils sold by international brand in the supermarkets have a price lower than 8 €/Litre and it is very rare that an oil sold in the wine shop (the most profitable channel) show the value of acidity (only 2 cases out of 84), therefore is possible to conclude that the acidity level is used by cheap oil to increase their value. Superior quality oils don't need to indicate their acidity level. As regards the cultivar factor an oil Mono cultivar is sold at a price greater than an oil made with a blend independently by the distribution channel and the cultivar Taggiasca (typical cultivar for an Ligurian oil) is mainly valorised in the Italian on line channel. This fact is crucial because it show

how to direct the sale efforts, therefore the first market for this type of oil is the Italian on line channel, the others channels may represent only a makeshift.

4.3 The external recognitions influence

In the oil market (considering the made in Italy product) there are a number of different certifications (like DOP or BIO²) or prizes provided by national or international organization (public or private companies). One of the analysis's scopes is to assess how these recognitions are able to form the value in the different channels.

4.3.1 The DOP certification

The most important certification in the olive oil market is the DOP. Researches (Fotopoulos and Krystallis, 2003; Fandos and Flavián, 2006) shows how consumers have a favourable attitude toward the DOP and they are willing to pay a premium price for it. Our analysis shows that in the physical channels the DOP is able to increase the value for the 40%.

On the other hand in the Italian online channel the DOP certification is, in general, unable to create value; the same situation is for the USA market where the DOP certification is quite unknown.

The Ligurian oil has a slightly different behaviour, in fact, in the Italian online channel, the DOP certification seems to create value for a Ligurian olive oil. This could be due to the fact that the Ligurian attribute is able to create value and the DOP certificate secures that the oil considered is really made in Liguria, therefore the consumers are willing to pay for this certification

4.3.2 The BIO certification

The other certification in the oil market is the Organic (BIO) label analysed in the following tables.

In Italy, the price for organic oil is very close to a non organic one. Analogously to what has been stated about the acidity it is possible to recognize also in this case how the organic oil in the physical channel is sold mainly in the supermarkets, with a price close to the mean, 9.22 [€/Litre], and is a rare attribute. In the online channel the situation is similar, although there are a greater percentage of bottles with this attribute. Quite the reverse is the result for the US market, in fact, in this market an organic oil bottle gains an average of 6 euro of premium price; this is due to the different attitude of the US consumers. In fact in the USA there is, for a certain market segment, a deep appreciation for the organic food (Govindasamy and Italia, 1999). Considering all this results it makes sense to structure the supply chain to direct the organic oil in the US market.

² BIO is the Italian certification for the organic food

4.3.3 *Prizes won*

In addition to the certification it is important to consider how prizes and appreciations (such as citations in some important guide or being finalist in some important competition) influence the value. This information is not showed on the label of an oil bottle, but is often included in the oil's card in the web site; therefore the analysis is limited to the web site only. From our analysis the advantage of selling in the USA market is evident probably because of in a foreign country the prizes can guarantee the quality of a certain product.

4.4 **The packaging influence**

Changing the intrinsic oil quality or obtaining external recognitions could require an important effort: receiving a DOP or BIO certification is a long process and to change the cultivar mix can take many years. Completely different is the effort needed to change the size, the shape and the capacity for a bottle sold in a certain channel and so next paragraphs show how the various packaging features are able to create value in the different channels.

4.4.1 *The bottle capacity*

The most important packaging attribute is certainly the bottle capacity. The analysis indicates that in the physical channel there is a strong correlation between increasing the price and reducing the size, furthermore the results shows how the wine shops and the gastronomies use a small sized bottle (0.5 and 0.75 Litres) to increase the value, whereas in the supermarkets the most common size is 1 Litre.

Using the same criteria of classification used for the physical channel is interesting to note that considering in particular the US online channel the 0.5 Litre format is the most common and the most valorised, therefore it seems obvious choosing the 0.5 like the default size to enter in the US market.

4.4.2 *The label tied to the bottle neck*

After the capacity another important attribute in the packaging for the oil market is the label tied to the bottle neck. That label (can be a card or a booklet) provide different information about the oil characteristics, productive modalities and so on, the value of this information will be quantified in the next chapter, the scope of these analysis is to assess how the label itself is able to increases the sale price leaving the information provided out of consideration. The results show how in the physical and online Italian channel this attribute do not change the sale price, whereas, it is able to increase the value in the US market.

4.5 The information value

It is well known in literature that to provide information during the selling process about a certain product can increase its value (Bower et al., 2003; Di Monaco et al., 2005). The scope on this section is to assess and quantify this differential value for the oil bottles in the different channels. In this case there is deep difference between the physical and the online market, in fact in the physical market the information are provided by the label, and must respect rigorous laws. In the online channel there is more freedom and it is possible to present the bottle giving a large number of information.

The most common characteristic reported for the oil bottles is the taste. The statistical analysis shows how, in the physical channel, the taste description do not create value but, even decrease the value. This situation can be explained considering that many oils sold by international brand in the supermarket at price lesser than 6 €/Litre provides information about the taste. Also in the Wine shop this attribute do no create value, since in that location the information are mainly provided by the shop assistant and a design without this type of information might be more elegant. In the online channel, in particular in the US market, this information is able to create value, whereas it is influent in the Italian online market. Another analysis can be made considering each type of information provided in addition to the information that the law obliges to write on the label, example of “voluntary” information are: taste, acidity, production methods etc. The results in this case are analogues to the results provided for the taste description.

5 FINAL RESULTS OF THE STATISTICAL ANALYSIS

Beside the already reported factors many other have been analysed. Table 1 summarises the impact of the most relevant.

With these information is possible to increase the value of a certain oil in two steps. First step: to find the right market for the characteristics of the oil. The characteristics here considered are those “constant” such as: place of origin, Acidity, Prize won. When the channel as been select is possible to implement the step two, that is, the fine tuning of the characteristic “easy to change”. In this step the characteristics such as “Bottle coated” or “label tied to the bottle neck” are chose according to the market.

The table can be used as a tool also to improve the performance in the actual market position by adding the factors able to increase the value. For instance for the DOP sold in the low value channel is valuable to create a bottle with a peculiar shape, whereas for an oil sold in gastronomies or wine shops is value to add a label tied to the bottle neck.

Table 1 Results of the statistical analysis

		Physical channels			On line channel			
		High Value channels	Low value channel		Italy			USA
			DOP Oil	Not a DOP Oil	Global	DOP Oil	Not DOP oil	
Specificities	Olive origin (general)		++		++	++	++	++
	Olive origin (Region)	++	++	++	++	++	++	++
	Monocultivar			+	++	++	++	
	Acidity	--	N.O.		++	+	++	
	Taste	--				+		+
Certifications	DOP certification		Not Applicable		++	Not Applicable		--
	Organic (BIO) certification	N.O.		++	N.O.	N.O.	N.O.	++
	Other certification (IGP...)		N.O.	+		N.O.		--
Packaging	Bottle capacity	++	++	++	++	++	++	++
	Bottle Shape	N.O.	++	N.O.	N.O.	N.O.	N.O.	N.O.
	Characteristic description			++				
	Bottle coated				++		++	
	label tied to the bottle neck	++			N.O.	N.O.	N.O.	++
Internet Related	Prizes won	Not Applicable			--			++
	Link sponsored					++		N.O.
	Type of vendors				++	+	++	++
	Olive origin (Specific)						++	

+ = weak significance in increase the value (5% < P value ≤ 10%) - = weak significance in decrease the value (5% < P value ≤ 10%)
 ++ = strong significance in increase the value (P value ≤ 5%) -- = strong significance in decrease the value (P value ≤ 5%)
 N.O. = not enough data (not significant P value)

6 CONCLUSIONS

The methodology exposed in this paper try to merge the information gained from a field survey with those coming for database analysis in order to define some suggestions to increase the value of the olive oil to the eye of the costumers. The analysis showed that there is a strong difference between the attribute considered important in an interview with those paid more by the consumers, and this could bring to the idea that there is a lack of information in this sector. Moreover the paper stresses the importance of the right channel to increase the value of certain oil (like gastronomies and wine shops). Another channel able to place a higher price on the oil is the on-line channel. Although the market share of this channel is not yet important it is going to increase. Moreover there are many correlations in he combination of characteristic of the oil and related best distribution channel (for example the DOP certification allows to gain value in the Italian market and not in the US market where is quite unknown). On the other hand the BIO certification creates value in the USA where there is a grater sensibility thought the organic food and not in Italy.

Last element is that although is not consciously recognized from the consumers the packaging plays a fundamental role. It is well recognized how reducing the size increases the value, but there are still examples of high quality oil sold in large bottle. It seems obvious that a good design study in the bottle conformation will allow to increase the value, in a way simpler than, for example, getting a DOP certification.

It is important to remark how the methodology here exposed about the oil market is applicable to a broad range of goods, in particular high quality food characterized by well defined attributes.

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