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New trends in world wine consumption and its impact on the Spanish wineries during the second half of the twentieth century

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1. Introduction¹

The wine sector has undergone a series of deep transformations during the twentieth century, especially in the second half. A restructuring process occurred for several reasons. In order to understand these changes from the point of view of the supply, we should first bear in mind the demand, in other words, wine consumers, who have experienced similar or even greater changes in their habits and preferences and have participated to a large extent in causing the transformations in the sector.

This is not an isolated case, it is not a particular phenomenon of a specific country, but has taken place on a global scale. World wine consumption has fallen substantially since the 1960s, in a constant, regular way, in response to the changes that the world society has undergone in terms of food and way of life.

Traditionally, the main wine consumer is in the countries of the south of Europe (France, Italy, Spain, Greece), where the population drink wine as a part of the staple diet. This practise is the cultural legacy of thousands of years of "Mediterranean triad" (cereal, olive oil and wine), where grape juice has been a basic component of the diet and a very important source of calories.

A good example of the above is the Spanish case. This country, a traditional Mediterranean wine producer and consumer, is experiencing the new trends in a very marked manner. In this paper, the idea is show how these new habits concern the

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Spanish wine businesses, especially in the productive and marketing process, with emphasis on a particular kind of business – the cooperatives - but one which at the same time is very important in the Spanish wine industry, and one which today controls 70 per cent of the total production.

These big factories, created in the fifties and sixties, were the basis of the Spanish wine sector industrialization and a means of rural development in winegrowing areas. Cooperatives produced a homogeneous wine of medium quality in large quantities which were sold in the main by bulk. They adapted well to the market demands of the time.

The main goal of this research is explain the impact of the new trends of wine consumption, and the way these enterprises adapted to the circumstances. The hypothesis is that the Spanish companies had to start a deep and traumatic restructuring process, with the aim of surviving adequately in the changeable wine national and international markets. Heavy technological investments were made, with serious finance problems, during the eighties and nineties. We will see this from two specific cases, the Cooperatives "San Isidro" and "Rosario", located in the Region of Murcia, in the Spanish southeast.

2. Structure and evolution of world wine consumption

2.1. Geographical location and global evolution

In the 1890s wine consumption reached very high levels, followed by a descent until World War II. At the same time, tastes and preferences changed, with an increase in the consumption of natural wines, of quality and low alcoholic degree, as opposed to the traditional demand for full-bodied wines. Three causes lay behind this new trend according to some authors: anti-alcoholic movements, the impact of World War I and the preferential policies of some countries in the markets². Other authors, like Vicente Pinilla and Ma Isabel Ayuda, show that the increase of the consumption was mainly among the traditional producers, but also in countries with a medium consumption and high income level, due to easier imports and low prices of wine and because of improved sea and road transport. Only the higher social classes drank wine in these

² Morilla (2001)

³ Pinilla and Ayuda (2002, 2005)

countries, with the rest of the population preferring other beverages like beer, due to cultural factors. Wine was not a mass product in these societies.

These general trends before World War I established the evolution of wine consumption in the second half of the twentieth century. In general, world wine consumption at this time was in a constant fall, especially in the last quarter of the last century, decreasing from 257.8 million hectolitres in 1979 to 237.6 in 2003, in other words, a drop of 7.8 per cent⁴.

In order to make the process of geographical location, the evolution of the wine consumption and the transformations occurred in the demand during the last fifty years more understandable, I have established three large groups of countries with well defined characteristics in the demand lines. I show the main existing models in reference to wine intake worldwide.

The historical consumers and producers from the Mediterranean region in Europe form the area I, along with a special case, as is Argentina. The second group is made up of countries from Central Europe, traditionally consumers but less so than the Mediterranean area. Finally, there is area III, with the new consumers from the North of Europe and the new world producers, for instance Australia. I will analyse other outstanding cases, due to their specific evolution or importance in the world⁵ (see Table 1 and Figure 1).

Table 1
Countries in the three areas designed according to the evolution of consumption

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AREA I	AREA II	AREA III	OTHER CASES			
France	Germany	Netherlands	United States			
Italy	Switzerland	Denmark	Rumania			
Spain	Austria	Sweden	South Africa			
Portugal	Hungary	United Kingdom	Canada			
Greece	Belgium	Australia	Chile			
Argentina			USSR-Russia			
_			China			

Source: Own elaboration

⁴ Statistics OIV.

⁵ Criteria used to create the three areas are geographical location and the per capita consumption. In the Mediterranean area these must be countries with an initial level above 40 litres per capita in 1955. The second area must have a stable demand, between 5 and 40 litres per capita in the second half of the twentieth century. And in Area III there must be those countries whose initial level was very low, less than 5 litres per capita, but which in 2003 had reached a level above 15 litres per capita.

Geographical Distribution of the total consumption in Europe, by areas Old consumers Middle consumers

Figure 1

Source: Own elaboration

The Mediterranean area is the main consumer and producer of wine. In the period 1986-2003 this region consumed on average 50 per cent of the total intake in the world, while Central Europe accounted for 13 per cent and the new consumers 7 per cent, a small percentage but with a growing trend⁶. Therefore, our proposal includes 69 per cent of the total wine consumption in these years, beside a series of specific and important cases, such as the large markets of the United States, Canada, Russia or China.

This distribution of the total consumption, where the Mediterranean area is the most important consumer, has changed in recent years. A convergence is taking place between new and old consumers. The weight of the Mediterranean area has fallen in total wine consumption from 3.72 per cent in 1986 to 41.14 per cent in 2003 while Central Europe has grown from 10.62 per cent to 13.31 per cent in the same period, and there has been outstanding growth among the new consumers, which have grown from

■ New consumers

⁶ Statistics OIV.

5.40 per cent to 9.20 per cent⁷. The general trend is that the Mediterranean consumers have a decreasing evolution, which has led to a fall in world wine consumption in the second half of the twentieth century.

At the same time, the new consumers from Europe, where beer has historically prevailed, have a strong increasing trend, so generating this convergence between new and old consumers. However, given their small initial weight, these countries have not been able to compensate the fall in the Mediterranean area. Neither has Central Europe helped, despite a considerable level of consumption, due to a stable trend without repercussion on global scale (see Figure 2).

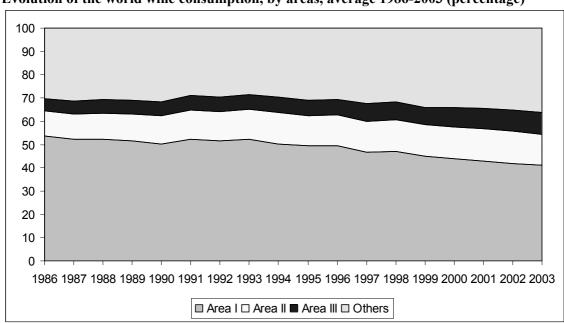


Figure 2
Evolution of the world wine consumption, by areas, average 1986-2003 (percentage)

Source: Organisation Internationale de la Vigne et du Vin (OIV). Own elaboration

In what follows, I will perform a more detailed analysis of the different areas of wines consumers, and of the demand evolution during the second half of the twentieth century.

2.1.1. Area I: Old consumers of the Mediterranean

The main wine consumers in the world are the biggest producers too, especially in Mediterranean Europe. France, Italy, Spain, Portugal and Greece⁸ are the core of

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⁷ Statistics OIV.

world wine consumption. However, there are other important cases outside this area. For instance, Argentina is the most Europeanized country in Latin America where Spanish and Italian immigrants have intervened in the high demand.

This area has a negative evolution in its demand of wine. In the second half of twentieth century, the per capita consumption of wine has fallen in the Mediterranean region in a constant, unanimous way (see Figure 3).

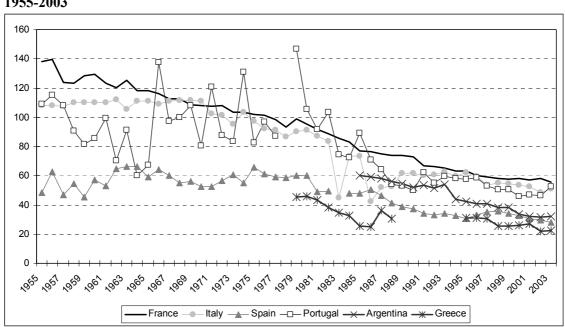


Figure 3 Evolution of the wine consumption in the Mediterranean area (litres per capita), 1955-2003

Source: OECD, Food Consumption Statistics (1955-1984); OIV (1985-2003). Own elaboration

France was the first country in this trend, the main consumer and producer in the world decreased its level of per capita intake during the second half of twentieth century. In 1955 this country had the highest consumption, 138 litres per capita. Today it is still the main consumer still, but with only 55 litres per capita there has been a sharp decline.

Italy followed France in the seventies, while the Iberian countries (Spain and Portugal) joined these new trends a decade later. There is no information about Greece or Argentina, but the lines are similar⁹.

What are the causes of this intense and constant fall in wine consumption in the Mediterranean countries? José Morilla¹⁰ informs us of the simplified demand models

⁸ Urwin (1991).

⁹ OECD, Food Consumption Statistics; Statistics OIV.

according to prices and income, and their limited predictive ability in the case of wine. This is due to differentiation trends in this product, the regulations in its markets, moral, legal and social interferences, and irreversible demand curves of a lot of consumers.

Therefore, we have to search for other kinds of causes to explain these transformations in the wine consumption trends. The simple changes in income or prices are not valid, although cultural and social factors are important.

Several authors have worked on this issue, extracting diverse conclusions. For instance, the consumption is inelastic to the price changes¹¹, or the more consumerist a country is the less important are the income changes of population¹², due to this product being considered as a basic commodity in the Mediterranean region. To explain this, other authors have quoted the "hedonic functions" in the case of Australia or California, where the demand is not defined by the price, but by the perception of quality wine, the fashionable varieties and the area of origin¹³. This aspect has imposed itself in recent years, both in the new consumer and the Mediterranean countries, where qualitative and cultural factors have more and more importance.

There are several reasons for this general evolution in the Mediterranean region. First, the rise in income and the higher standard of living in these countries due to the industrialization and urbanization processes. This is not related to a higher purchasing power, but to a population which is much more concerned about health and fitness, and therefore a lower consumer of alcoholic drinks. The reason that more developed countries, like France or Italy, experienced a fall in consumption earlier than the Iberian nations is the later incorporation of these into the new food trends. Other factors are the changes in the age structure of population or the new substitute beverages, which are much better adapted to the demands of young, urban people.

These transformations have changed the way of life and consumption of the society and the preferences of the wine consumer today, and so there is an ongoing homogenization process. Nowadays, the habitual consumer does not drink table wine, because the demand has shifted to quality wines. This product is drunk sporadically, it is fresh, young and it has a lower alcohol degree coupled with a suitable appearance¹⁴.

¹⁰ Morilla (2001)

¹¹ Labys (1976); Pinilla, Ayuda and Aparicio (1998); Troncoso and Aguirre (2006); Bardají (1992).

¹² Tapli and Ryan (1969); Bardají (1992).

¹³ Golan and Shalit (1993); Oczkowski (1994).

¹⁴ Morilla (2001).

Today, the habitual consumer is characterized by people under 50, with a high level of culture, graduate and with middle to high incomes. The consumption of wine has become a gastronomic ritual, only for occasions, and the purchase is a meditated process¹⁵. However, the traditional drinker is older, prefers table wines with low prices and a higher alcohol degree¹⁶.

The new habitual consumer is related to the health properties of the wine, according to the scientific community. The moderate consumption helps to decrease fat and cholesterol levels, and it is a powerful anticarcinogenic, antioxidant and cardiovascular protective. The presence of a constituent in the skin of the grapes, resveratrol, especially in red wine, is the key. Because of that the consumption of red wine is increasing more and more in the last years ¹⁷.

It is called the "French paradox", a concept published in the journal *Lancet*. The researchers advised that French people smoke more than American people or north European societies, practised less sport and ate more fat. Yet cardiovascular disease mortality was lower because of the higher consumption of wine, according to the scientific community¹⁸. Since the nineties, several institutions and scientific journals have published epidemiological studies about the health properties of wine. This has led to a change in the reputation of this product, especially due to dissemination through the mass media and new institutions.

2.1.2. Area II: Consumers of Central Europe

The countries of Central Europe have been consumers and producers of wine, but less so than the Mediterranean area. This area has had a relative stability in the per capita consumption over the last years (see Figure 4).

An outstanding growth of wine consumption has taken place in Germany since the eighties, and has remained stable until the present day. In Belgium the same process occurred, after an intense growth in the Golden Age the intake has stabilized around 20 litres per capita. The other traditional consumer of Central Europe is Switzerland, where consumption fell after a rise at the beginning of the eighties, stabilizing around 40 litres per capita. Another example is Hungary, with around 30 litres per capita after the fall of

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¹⁵ Millán and Yagüe (1997); Sainz (2000-2001); Bardají (2004); Martín (2006).
¹⁶ Bernabéu and Olmeda (2002).

¹⁷ De la Torre (1997); Farré (1994-1995); Moreno (2000).

¹⁸ Reanud and Lorgeril (1992).

communism. Finally Austria is another important case, after an intense growth in the fifties and sixties, its demand was stable around 30 litres per capita, earlier than in the rest of countries of this area, at the beginning of the seventies¹⁹.

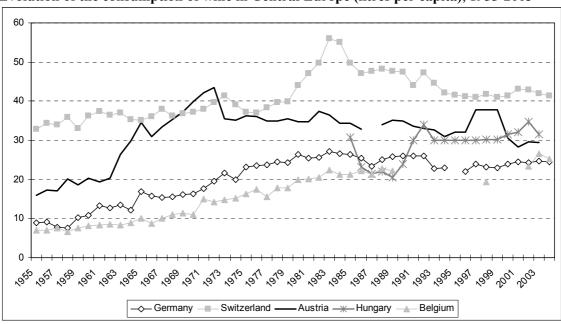


Figure 4
Evolution of the consumption of wine in Central Europe (litres per capita), 1955-2003

Source: OECD, Food Consumption Statistics. (1955-1984); OIV (1985-2003). Own elaboration

In short, Central Europe is an area with a traditional and high consumption but without intense growth. This area did not set off the fall of the Mediterranean region, so stabilizing the level in the seventies and eighties. These countries could be described as a "transition area", because the consumption is not as high as in the Mediterranean, but is not as low as in the north of Europe either. And this is in spite of the strong tradition in the consumption of beer.

There are various reasons for the high demand of wine. For example there is a strong presence of Latin people in Switzerland and Belgium. Moreover Germany, Austria and Hungary are traditional producers, a fact which explains the high level of intake. At this moment, in the Nordic countries wine consumption is increasing a lot, in a similar process to Central Europe in the seventies and eighties.

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¹⁹ OECD, Food Consumption Statistics; Statistics OIV.

2.1.3. Area III: New consumers of the North of Europe

The consumers of the North of Europe and the new producers (Australia, California, South Africa, Chile or New Zealand) form a third area. These cases have a very low initial level of consumption but they have registered an intense growth in recent years. The Netherlands, Denmark, Sweden and United Kingdom have had a surprising and constant growth in the second half of the twentieth century, with very similar trends (see Figure 5).

Beside these countries, there are other important cases like the new producers in the new world, especially Australia, although its role is more important from the point of view of the supply.

35
30
25
20
15
10
5
0
10
Netherland — Denmark — Sweden — Australia — United Kingdom

Figure 5
Evolution of the wine consumption in the new consumers (litres per capita), 1955-2003

Source: OECD, Food Consumption Statistics. (1955-1984); OIV (1985-2003). Own elaboration

These societies, traditionally consumers of beer, have shown an intense growth in the consumption of wine because of their high income levels. They ask for quality wines more and more to drink in an occasional way, in contrast to the habitual consumption of beer. Wine is fashionable; it has recognized healthy properties. Therefore in those countries where it is not a traditional product the demand is increasing.

Moreover, today wine is an ever more common product in this area, which explains the rise in demand. It is no longer a beverage reserved to the higher social class²⁰.

2.1.4. Other cases

Apart from the countries include in the three areas designed, there are other specific and important cases. For example, the United States, with a very small per capita consumption (8.1 litres in 2003) and with a stable or even decreasing trend in recent years, but the size of its market is extraordinary, so this country has an enormous potential and it will be an important case in the future. In 2003, the United States consumed 10 per cent of the total world consumption of wine, being the third country after France and Italy²¹.

Something very similar is taking place in the Asian countries, especially China and Japan, with very low demand levels, but in continuous economic growth, a higher income level and the extraordinary size of their markets. It is an area with an important future in wine consumption²².

As regards the new producers, there are several situations. For example, Australia has an important growth in the demand levels. But in other cases like South Africa the trend is different, with an initial consumption of around 10 litres per capita in the mid-eighties, and currently this level has fallen to around 7 litres per capita litres. Chile has a similar decreasing evolution, from 18 litres per capita in 1995 to 16 in 2003²³.

Another specific and outstanding case is Rumania, with an extraordinary growth from 10 litres per capita in the mid-eighties to 22 in 2003. However, Canada is among the countries with a clearly static intake, between 7 and 10 litres per capita litres over the last 20 years. Demand levels in the Soviet Union have also decreased after the fall of communist regime²⁴.

²² Statistics OIV.

²⁰ Pinilla and Ayuda (2002).

²¹ Statistics OIV.

²³ Statistics OIV.

²⁴ Statistics OIV.

2.2. A traditional consumer country of the Mediterranean: Spain

An exemplary case in the Mediterranean area could be Spain. This country shows similar trends to the rest of area, although with a lower per capita consumption than in France, Portugal or Italy. Moreover, the Spanish case is unique due to other reasons. In the Mediterranean area the fall of wine consumption has been caused, among other things, by the rise of substitute beverages, like beer, soft drinks, natural juices or mineral water. But in Spain this has been especially true, with a great increase in beer consumption in the last century.

In other Mediterranean countries wine and beer consumption have drawn nearer, but the latter has maintained its supremacy²⁵. Nevertheless in Spain beer has increased a lot since the beginning of the eighties, rising to the top of Spanish beverages in these years. After a slight decrease compared to other drinks, it then stabilized around 60 litres per capita, higher than the 26.8 litres per capita of wine in 2005 (Figure 6). In recent years the growth of the consumption of alcohol-free beer in Spain, with one of the highest levels in Europe, stands out.

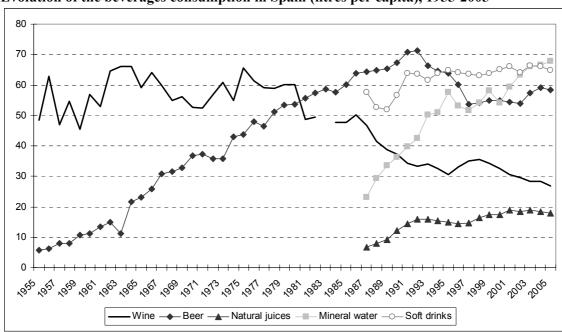


Figure 6 Evolution of the beverages consumption in Spain (litres per capita), 1955-2005

Source: OECD, Food Consumption Statistics (1955-1963) / MAPA, Anuario de Estadística Agraria. (1964-1986) / MAPA, Panel de consumo. (1987-2005) / Cerveceros de España (beer data 1977-1986). Own elaboration

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²⁵ OECD, Food consumption Statistics.

Moreover, other beverages have become wine competitors, beverages which are much better suited to a young urban demand. For instance, there has been an outstandingly intense growth of natural juices or soft drinks, with the latter enjoying a higher consumption than wine. Mineral water has increased from 20 litres per capita in 1987 to almost 70 in 2005, and today it is the main drink consumed in Spain²⁶.

This extraordinary change in the preferences and habits of the Spanish consumer is motivated, as in other Mediterranean countries, by the modernization of the society, but there are other reasons too. For instance there is the climate, especially in the south of Iberian Peninsula, where the high temperatures favour more refreshing drinks like beer or soft drinks²⁷. Moreover, these beverages have less alcohol or are non-alcoholic, and are supported by intense advertising and marketing investments by big multinationals, while the Spanish wine sector is fragmented and has an insufficient commercial capacity²⁸. Another reason is the advertising campaigns of the government against the consumption of alcoholic beverages²⁹.

A more detailed analysis of the wine demand structure help us to understand the intense fall of this beverage in the last third of the twentieth century and the new habits of the Spanish population. If we analyze the consumption by product type (table wine or appellation contrôlée), we can see significant changes, with a favourable trend towards quality wines. In 1987 the 78 per cent of wine consumed in Spain was table wine, and the 14 per cent was AC, while in 2005 the former had decreased to 60 per cent and the latter had grown to 33 per cent. So the fall in the consumption of wine was caused mainly by the decrease in the demand for table wine from 36.4 to 16.1 litres per capita in the period 1987-2005, while the quality wines show a total growth of 39.7 per cent, from the 6.3 to 8.8 litres per capita for the same years³⁰.

We should also see the evolution in the places where the wine is consumed. In 1987, 57.8 per cent of wine consumed was household consumption and 42.2 per cent was in restaurants. While in 2005, 41.2 per cent was household consumption (a decrease of around 54.9 per cent). This shows that the global trend of consumption has gone mainly toward restaurants, with 70.3 per cent of quality wine consumption. Although the domestic demand for quality wine is growing too.

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²⁶ MAPA, Panel del Consumo.

²⁷ Pradas Regel (1994); Sainz (1997); Resa (2002).

²⁸ Millán and Yagüe (1997); Rodríguez and Villarejo (1997-98).

²⁹ Millán and Yagüe (1997).

³⁰ MAPA, Panel de consumo.

In general, the Spanish population drinks less wine than their parents, and much less than their grandparents. In recent market studies by the Spanish Federation of Wine (FEV), we can see that just 8 per cent of the respondents younger than 24 years drink wine. Young Spaniards think that this beverage is not modern, and is only for experts, so it is less attractive than other products, and its consumption is something unusual³¹.

Moreover, we should bear in mind the dietary changes and the abandonment of the more traditional Mediterranean diet in Spain, after three decades in which fast food has grown a lot³². Wine forms part of that diet, as envisaged by Spanish law (Ley de la Viña y el Vino, 2003), and by the experts, which also explains this fall³³.

In short, the second half of the twentieth century saw new wine consumption models taking shape inside new global food trends, so increasing the consumption of food eaten outside the home and the preference for products of quality, so decreasing the generic products. Consumption has shifted to quality, healthy and natural products³⁴. These changes have affected the wine consumption and they correspond to a global context in the general food demand.

3. New trends in the wine consumption and the impact on Spanish wineries

3.1. Changes in the production process at the crossroads of quality

3.1.1. The problem of grape quality

One reason behind the creation of the wine cooperatives in Spain, according to the historiography, was that the vine grower gained access to the modern technology in big industrial wineries. This meant an improved production process and the economies of scale, a bigger added value for the final product and higher grape prices. Before, the vine grower sold the raw material on the markets, obtaining much lower prices than would a finished product, or they made wine in small individual wineries, in inadequate conditions. Therefore the wine was neither quality nor homogeneous.

Martín (2006).
 Rodríguez Artalejo, Banegas, Graciano, Hernández and Rey (1996).

³³ Moreno Ortigosa (2000)

³⁴ Mili (2005).

In other words, the cooperatives meant a real industrialization of the wine sector in Spain, according to Juan Pan-Montojo³⁵. This fact led in the fifties, sixties and seventies to an increase in cooperative members, who deposited their grapes, so increasing wine production and enabling it to be sold in the markets without problems.

These cooperatives underwent an intense growth of the grape introduced from the fifties to the seventies, but in the eighties the trend changed (see Figure 7). This crash can be explained by the crisis of these enterprises at that time, decreasing the prices of the members' grapes. A lot of vine growers preferred to sell the raw material in the markets, because the prices were higher and these cooperatives were indebted and with little credibility. In short, an intense adjustment in the supply in front of the changes occurred in the demand and the wine consumption.

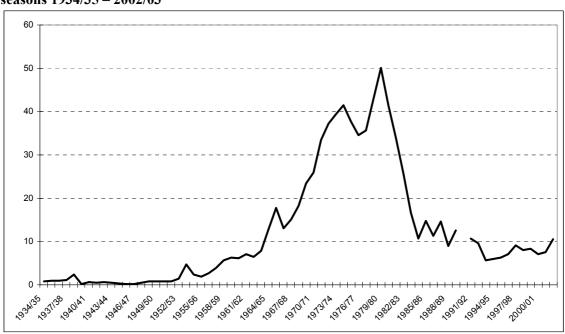


Figure 7
Evolution of the grape introduce for the members in the cooperative "San Isidro", seasons 1934/35 – 2002/03

Source: End of season reports. Archive of the cooperative "San Isidro". Own elaboration

In the fifties and sixties, the wine made by the cooperatives adjusted to the tastes of Spanish consumers, since these did not demand quality wines but table wines with a high alcohol degree. Traditionally, the cooperative wineries have produced table wine in bulk, using their members' grapes. Therefore, there was a loss of control in the quality of the raw material. With the modern technologies came product homogenization, in spite of the above, and these adjusted it to local tastes.

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³⁵ Pan-Montojo (1994, 2001).

But the new trends in consumption toward quality wines required a much higher control in the crops and the production process. New mercantile wineries were in line with the new tastes, and they made quality wines. These private enterprises started to produce from their own vineyards, with meticulous control, or they bought grapes on the market, applying a tough selection process. But in the cooperative system it is obligatory to accept the members' raw material in all cases, regardless of quality, so the crops undergoes no control process, which is very important in quality wine production.

In the eighties the cooperative wineries started to establish vintage standards, to impose minimum criteria and threatened sanctions to the vine growers. This led to better raw material, so improving the quality of wine and enabling competition in a saturated market where consumption was decreasing every year. Grape selection for quality was adopted too. However, these measures did not solve all the problems, because this control was very difficult to enforce in cooperatives with 500 or 1,000 members. Vine growers did not execute the vintage standards correctly, and some members passed off grapes of low quality as high quality in order to obtain a higher price, and sold the best raw material on the markets³⁶.

These measures met with relative success, with the final goal being to produce wine of quality and with a low alcohol degree. In the last years of the twentieth century the Spanish cooperative wineries have had some achievements: they have produced organic wines, with their own vineyards, grapes of quality, experimental areas, etc³⁷.

The fall in Baume degree since the last years of the sixties is a sign of the adjustment of these wineries to the new trends in markets³⁸. An earlier collection has meant a lower alcohol degree, in a region where traditionally the wines had a high alcohol degree (see Figure 8).

In other words, these wineries carried out the necessary adjustment process to obtain wine that was more in line consumer tastes. Traditionally a high alcohol degree was a sign of quality, so Spanish wines were apt for *coupage* with French wines during the phylloxera crisis, in the last years of the nineteenth century. Grapes in the cooperative wineries were classified under a higher or lower alcohol degree, and not by quality. But from the seventies and eighties this changed, with oenologists planning vintage and production, so as to compete on the market. Today, raw material above 14

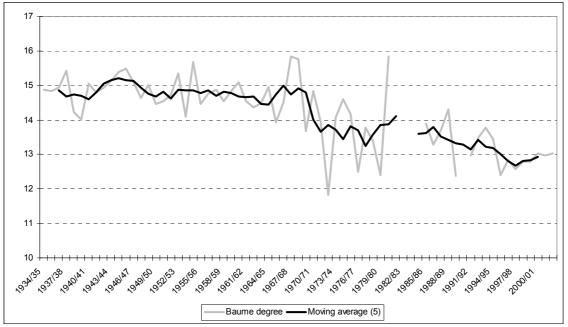
³⁶ Minute books of the General Assembly. Archives of Cooperatives "Rosario" and "San Isidro".

³⁷ Minute books of the General Assembly. Archives of Cooperatives "Rosario" and "San Isidro".

³⁸ Level of sugar in the grapes, which later will establish the alcohol level in wine

Baume degrees is not considered first quality grape, while in the sixties this level was the minimum required³⁹.

Figure 8 Evolution of the average Baume degree of the grape introduced by the members of the Cooperative "San Isidro". Seasons $1956/57 - 2006/07^{40}$



Source: End of season reports. Archives of the Cooperative "San Isidro". Own elaboration

In short, problems such as overproduction, saturation of the markets, fall in prices and changes in the consumer preferences, supposed an entire transformation process of the wine sector toward the bottled wines of quality at the beginning of the eighties. It required a big effort by the wineries to make the adjustment, especially in the cooperatives, in a restructuring process that is still going on. It is much more difficult to restructure a big winery with 30 million litres of wine, most of which is in bulk, than a little winery with 500,000 litres. In the first case the transformation process is longer, difficult and traumatic. Moreover, there were unfavourable factors at the time, such as the economic crisis in the seventies, which complicated the change, or the bad times in the cooperative system, with financing problems, lack of a managerial direction, rigid structures, social and non profit character, an inadequate legal framework, etc.

³⁹ Minute books of the General Assembly. Archive of the Cooperative "Rosario".

⁴⁰Another example is this graph, where we can see the fall of the Baume degree. Both cooperatives have reduced this degree, with the goal of making wines of lower alcohol level, and better adapted to current consumer tastes.

3.1.2. Technological modernization

At the same time, due to all these changes in the eighties, the production technology of the cooperative wineries was becoming obsolete. In those years a new system in the productive process spread through all the wine countries, therefore Spanish cooperative wineries had to introduce that technology, despite the serious difficulties. It was the cold technology in stainless steel tanks in the fermentation process.

In the nineties these factories started investment plans to introduce the new technology, human resources and structural changes, to produce wines of quality and to compete in the Spanish and world markets. The Cooperative "San Isidro" made an enormous investment from 1975, planning the improvement of the reception, crushed and drained system, the expansion and renovation of the bottling plant, and the adoption of new systems of elaboration, such as thermovinification or the use of cold temperature.

The first consisted of heating the product though immersion, and meant a bigger stability and uniformity in the wines⁴¹. The second allowed control in the fermentation processes though the use of cold, so controlling the term of this wine process and the alcohol degree. In this way the wine was adjusted to the new trends in consumption⁴².

The Cooperative "Rosario" was less innovative from a technological point of view. In the last years of the twentieth century this winery carried out an intense technological renovation, with the complete renovation of the bottling line and the improvement of the fermentation⁴³ (see Table 2 and Figure 9).

⁴¹ It was a very common system in the producer countries, with industrial application from 1965.

⁴² Minute books of the General Assembly and the Board of Directors; Annual Reports; Diverse documentation. Archives of the Cooperative "Rosario".

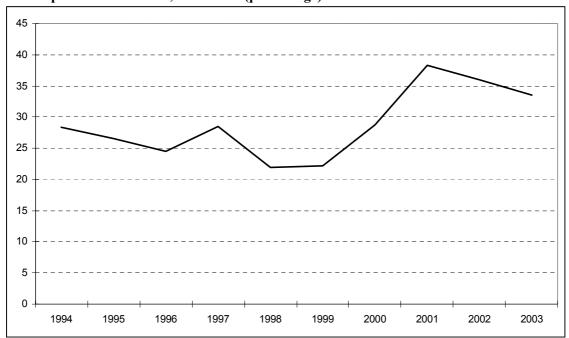
⁴³ Minute books of the General Assembly and the Board of Directors; Annual Reports; Diverse documentation. Archives of the Cooperative "Rosario".

Table 2
Some technological improvements of the Cooperative "Rosario"

Year	New technology Improvement	
1961	1st bottling plant	Bottle
1967	4th phase construction of the cellar	Enlargement to 6,924,000 litres
1972	Renewal of reception machinery	Improvement in reception process of grape
1972	Milling machinery of grape	Improvement in milling process of grape
1974	Four new tanks of 500,000 litres	Increase storage capacity in cellar
1978	Bottling plant and machinery	Higher capacity to bottle
1979	Construction ageing warehouse	Produce bottle wines of quality
1986	Construction six tanks	Increase storage capacity in cellar
1989	Renewal bottling line	Higher capacity to bottle
1990	New cold machinery	Improvement control in fermentation process
1990	New stainless tanks	Improvement control in fermentation process
1996	Investments Plan 1996-2005	Renewal in fermentation and bottled processes

Source: Minute books of the General Assembly and the Board of Directors; Annual Reports; Diverse documentation. Archive of the Cooperative "Rosario". Own elaboration

Figure 9
Evolution of the technological investments though Tangible Assets / Total Assets ratio in the Cooperative "Rosario", 1994-2003 (percentage)



Source: *General Balance Sheets.* Archives of the Cooperative "Rosario". Own elaboration

In short, wine cooperatives in Spain motivated the technological modernization, especially in the elaboration processes, in a vineyard with a shortage of capital for such investments. This provoked a big financing problem, taking on the investment to maintain the competitiveness and necessarily paying the members' grapes at high

prices, but a lot of vine growers sold the product on the markets. An example is the small participation of their own resources in the financing of these investments (see Figure 10).

Figure 10
Evolution of the internal resources sharing in the financing, through Internal Resources / Total Assets ratio in the Cooperative "Rosario", 1994-2003 (percentage)



Source: General Balance Sheets. Archives of the Cooperative "Rosario". Own elaboration

3.1.3. To bottle or die

The majority of the production of these cooperative wineries was sold in bulk, no bottle and unbranded, what it meant a lower value added of the product. The new trends in the markets forced changes in the productive systems of these factories. From the seventies was urgent to bottle a part of the output, it was the apt format to sell a product of quality, obtaining a higher value added and a best prices. This progress we can see in the Table 3 for the case of Cooperative "Rosario".

Table 3
Evolution of the bottled production of the Cooperative "Rosario", 1978-1988 (litres)

	TOTAL			PERCENTAGES		
	0.75 cl.	1 litre	Total bottled	0.75 cl.	1 litre	Total bottled
1978	67,111	547,398	614,509	10.92	89.08	19.71
1979	91,940	746,936	838,876	10.96	89.04	19.97
1980	558,901	799,857	1,358,758	41.13	58.87	40.86
1981	411,902	852,867	1,264,769	32.57	67.43	89.38
1982	275,452	832,011	1,107,463	24.87	75.13	51.75
1983	240,925	788,357	1,029,282	23.41	76.59	52.39
1984	241,832	712,596	954,428	25.34	74.66	68.42
1985	356,309	693,366	1,049,675	33.94	66.06	44.07
1986	367,741	632,898	1,000,639	36.75	63.25	31.34
1987	451,468	666,866	1,118,334	40.37	59.63	28.19
1988	477,072	609,528	1,086,600	43.91	56.09	40.67

Source: Archive of the Cooperative "Rosario". Own elaboration

From the sixties the quality bottled wine increased more and more, initially in 1 litre bottles and later in 75 centilitre bottles (3/4). These cooperatives understood that with the market stagnation, the bottle was the only way to improve the sales, even when the wine in bulk reached high prices⁴⁴. This shows the new trends in the wine consumption in the last quarter of the twentieth century. The sales of bottled wine grew every year, and the foreign markets appeared as the solution for a saturated, highly competitive Spanish market, and the fall of the per capita consumption. The problem was the intense difficulties of these big structures to adjust to the changes.

At the same time the cooperative wineries started to age their best wines, so it was necessary to build ageing cellars. And they conceived the importance of the different grapes varieties too, as a sign of identity and differentiation. Moreover, at this time they started to introduce other strategies, such as the diversification of the production. Before the majority was red wine, but later the wineries started to produce white wines and other products such as sangria, sweet wines or aged wines, which were well distinct and had their brands⁴⁵.

3.2. Evolution of the sales and changes in the commercial strategies

Historically Spanish cooperatives sold wine to several kinds of consignees. Locally the main buyers were the direct consumers, through their own wine shops in the municipalities where these wineries were found, or in the nearby towns. Regionally

⁴⁴ Minute Books of General Assembly. Archives of the Cooperatives "Rosario" and "San Isidro".

⁴⁵ Minute books of the General Assembly (11/09/1983, Volume I, p. 51). Archives of the Cooperative "Rosario". Minute books of the General Assembly. Cooperative "San Isidro".

distribution contracts were established with retailers, and nationwide though specific sales contracts with bottling factories or dealer enterprises, but without continuity. Only in the eighties did some cooperative wineries create their own system of nationwide distribution, with the consignees being direct trading companies and consumers.

Cooperative wineries were the main producers in their regions, and they controlled the majority of the grape and the wine produced. Therefore these enterprises maintained prices in crisis times and saturated local and regional markets, which they controlled perfectly, but not national and international markets.

It was a quiet situation, so commercial strategies were designed by the members until a few years ago. In other words, these strategies were not sophisticated, focusing especially on the fixing and maintenance of the wine at gross prices.

At the end of the seventies and especially in the eighties this changed, and the cooperative wineries had to modernize their organizational structures. These companies had to adapt to the changes in the markets, by using new strategies and adopting professional management to improve sales.

Another measure was to open new markets, because the exports allowed the action zone to be enlarged and higher prices to be obtained. Europe or the United States used to demand bottled wine of quality, with denomination of origin, due to its high cultural and income level. Therefore, cooperative wineries started to explore the international markets, and at the same time they adapted, with a higher production and sales of bottled wine with denomination of origin in bottles of 75 centilitres (the best for quality wines), and a decrease in bulk and the 1 litre bottles. We can see this in the Figures 11, 12 and 13, for the case of the Cooperative "Rosario".

Wineries started to use brand and marketing policies too, identifying the product though labels on the bottles or beginning to explore advertising. Moreover, in those years they improved the distribution systems and the diversification strategies.

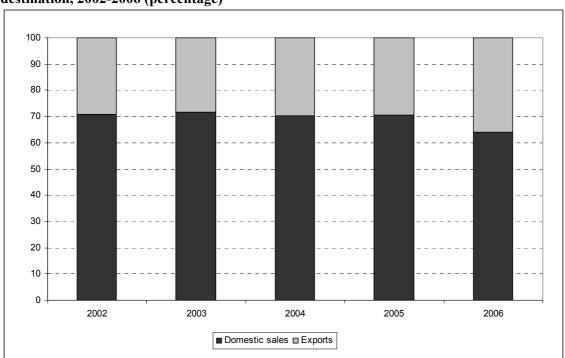
In 1979, Cooperative "Rosario" recorded the first trademarks, depending on qualities: "Rosario" and "Ungria", in 1981 "Lebrel", and in 1985 "Don Hidalgo" or "Señorío de Bullas", brand reserved for the best quality wine. Today there are others like "Tesoro de Bullas" or "Las Reñas". The Cooperative "San Isidro" had started the brand policy a few years earlier, at the beginning of the seventies, with trademarks like "Dejumilla" and "Sangría", although really this winery had had brands from the forties, for the small bottle wine produced, as "El Monasterio", "Celia", "Super-Cuatro" or "Gemina". The last is still active and is reserved for the best quality wine. Others labels

have been "Rumor", "Cañalizo" and "San Isidro". Today there are others like "Genus" or "Sabatacha", etc.

These trademarks are accompanied by graphic pictures, characterizing the kind of wine and identifying the denomination of origin, quality, variety of grape, ageing, season, etc.

As regards marketing strategies and advertisement, the cooperative wineries did not need these measures until the seventies, when they started to participate in regional, national and international festivals and trade fairs. Later they contracted advertisements in regional or national press and radio. Moreover, they started to make business trips for the direct promotion of the product, even worldwide⁴⁶. In the nineties these wineries carried out more modern strategies, such as direct promotion in shopping centres.

Figure 11 Evolution of the percentage distribution of total sales in the Cooperative "Rosario", by destination, 2002-2006 (percentage)

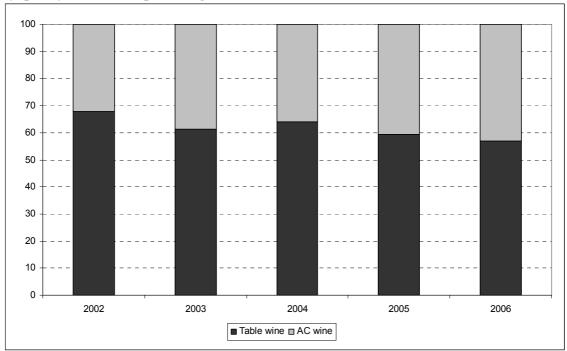


Source: Annual sales extracts. Archive of the Cooperative "Rosario". Own elaboration

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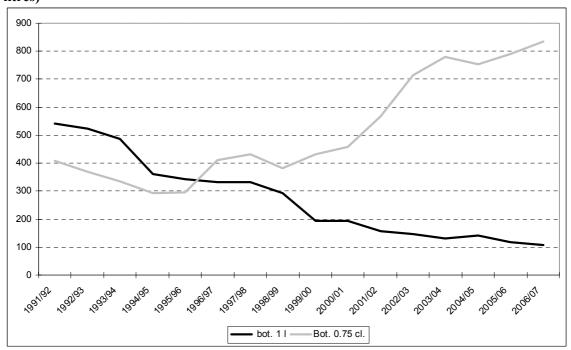
⁴⁶ In 1975, the Cooperative "San Isidro" initiated a series of business trips to promote its product in countries like Russia, Czechoslovakia, Poland, Germany, Switzerland or France. *Annual Report 1975*, Archives of the Cooperative "San Isidro".

Figure 12 Evolution of the percentage distribution of the internal sales in the Cooperative "Rosario", by quality, 2002-2006 (percentage)



Source: Annual sales extracts. Archives of the Cooperative "Rosario". Own elaboration

Figure 13 Evolution of the sales. Cooperative "Rosario", by format bottles, 1991-2006 (thousands of litres)



Source: Archive of the Cooperative "Rosario". Own elaboration.

3.3. Changes in the organizational structure and Professional management

A big problem in the cooperative wineries was the lack of professional management. Until the eighties, the positions were occupied by the members, and the oenologist was the only professional. This organizational structure was a big obstacle in aspects like commercial strategies, expansion plans, an adequate financing, accounting control, investments, centralized decision making or human resources.

In other words, there was a lack of entrepreneurship. These enterprises had very favourable conditions, they controlled the majority of the vineyards of their regions, they had intense state aid and no big competitive mercantile companies, yet they did not take advantage of this situation.

Until the seventies these cooperative wineries did not have adequate commercial strategies. The accounting was disorganized. Only from the eighties was it more homogenized though computers and they started to do external audits to check their real state. Moreover there was no decentralization. All the duties depended on the chairman, but in the seventies they started to do some specialization, through the creation of commissions dedicated to specific issues, like the production or marketing of the product. Later positions such as manager director or commercial director were created. This was the professional management process in the cooperative wineries.

Therefore, the commercial aspect was professionalized first, then the technical one in the production (oenologist), because of the fall in sales in the first half of the eighties. In these years the commercial directors and sales promoters stared to appear to improve sales and to mitigate the crisis. Managing directors also appeared, to substitute the board of directors and the president. They had business training to centralize the decision making in economic issues of these wineries.

From the nineties to today the management teams of these Spanish cooperatives have definitely been professionals. There has been the application of a department structure and a technical skilled staff in the different aspects, such as management, production, sales, marketing, finances, etc. In addition, there is participation of external advisors for less professionalized aspects, such as legal issues, or the contracting of external audits to analyse the accountancy situations in enterprises with intense financing problems due to their own organizational structures.

Conclusions

A serial of intense transformations has taken place in the wine sector worldwide in the second half of the twentieth century, both in the productive aspect and in the demand. During this period, wine consumption has fallen constantly and the habits and preferences of the consumer have changed, with an intense restructuring process in the productive sector provoked by these new trends. Hence, the wineries had to start a necessary adjustment.

In this study, we have tried to offer a detailed analysis of the reasons for these changes in the demand patterns. We have seen that the fall in wine consumption in the world is due to the decrease in the countries of the main consumer and producer area - Mediterranean Europe. Traditionally in these societies the consumers drank wine daily as an essential part of their diet. But due to the modernization and industrialization of these countries, the new consumers drink wine only occasionally and demand a quality product which is well presented and identified by Appellation Contrôlée.

At the same time, in other regions of the world where this product was not so common, wine intake has grown a lot, as in the North of Europe or the new producers outside Europe. But this growth has not been sufficient to compensate the decrease in consumption of the Mediterranean region. In other words, a process of convergence has taken place in the consumption patterns between new and old consumer countries, with a homogenization of the demand based on bottled wine of quality, which is natural, of low gradation and of good appearance.

A good example of these new trends is Spain, traditionally a consumer and producer of wine where the fall of the consumption has been constant in the second half of the twentieth century, due to the intense growth of new substitute beverages, in line with the changes in the food habits of the Spanish population.

This overview has focused mainly on the wine sector, with the decrease in vineyards and the higher production of wine with denomination of origin. But it has especially been concerned with the restructuring process of the business, in a country where today 70 per cent of the total output is made by cooperative wineries, with big factories being set up under the Franco dictatorship as a development model in depressed areas. Traditionally these enterprises made a product which adjusted to the old consumption trends, so from the seventies it had to start a traumatic restructuring process to adjust its product to the new patterns of demand.

The cooperative wineries had to bring in greater control of the productive processes, checking for the best quality of the grapes, a decrease of the alcohol degree and a technological modernization, with the application of cold processes and the installation of bottling plants, along with wider diversification of the product and a better appearance of the wine too.

At the same time, due to the fall in consumption and the new habits of demand, the cooperative wineries started to incorporate professional management in order to use commercial brands and marketing policies, to maintain the sales in times of change in the wine sector with a product of quality that is well differentiated by its denomination of origin. These business had to begin huge investment plans to carry out these changes, and they entered a strong crisis due to their traditional large financing problems.

In short, a new trend in the consumptions models has provoked an intense and traumatic restructuring process in the wine sector and its business, so that it can adjust to these transformations.

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