Bordeaux natural wines on the Japanese market: analysis of supply chain system' indolence

Tatiana BOUZDINE-CHAMEEVA
BEM Bordeaux Management School, France
tatiana.chameeva@bem.edu

Marie NINOMIYA
Faculty of Commerce, Fukuoka University, Japan
ninomiya@fukuoka-u.ac.jp

Abstract
Over the last few years, the interest towards natural wines has been increasing on this world wine market and in Japan in particular. The Bordeaux natural wines have been facing challenges on the market, partly due to the supply chain problems. Our work focuses on understanding the role and interactions of major actors on the Bordeaux wine scene and natural wines' distribution in Japan. The research methodology employs content analysis and critical incidences approach. A study is grounded on a series of interviews with winemakers, wine merchants, wine broker's agency, a union of natural wine producers and several natural wines' distributors in Japan. Our findings show the strong heterogeneity of the Bordeaux natural wines' production sector, considerable differences in supply chain solutions. The practical implementation of these results is discussed.

Key words: Wine supply chain, Natural wines, Distribution in Japan, Bordeaux wines.
INTRODUCTION
The first decennium of the 21st century has been marked by environmental concerns gaining more and more attention. The acknowledgment of climate changes and natural resources' limits, the awareness of the negative impact of certain human activities on the environment and the necessity to reduce either this impact or these activities stimulated the interest towards natural and eco-friendly products. Over the last few years, the world wine market reveals the growing tendency to natural - organic or bio - wines'. As with many organic products, natural wine is becoming more widely available and offering more choice to consumers. Marketing sustainability and promoting environmental credentials becomes even a driving power in world wine (Brugarolas, 2005).

New Zealand cultivates its "green" image (Hughey et al.,2005), Australia moves rapidly towards organic viticulture (Lockshin et al., 2008), Chile passes a country-wide sustainable code of conduct (Gibb, 2009). In the meantime France overall did relatively little environmental claims though during the recent years media generates a greater consumer awareness about natural wines, and the conversion process of vines into natural vines starts speeding in several regions.

On the consumer side, several countries on the world wine market distinguish from others by an increasing percentage of natural wines in their total wine import; Japan is among these countries (Agence BIO, 2008). For French wine export, Japan holds the 6th position in volume and the 4th on value. France is the first wine supplier country for Japan (CIVB, 2009). Bordeaux wines are going through crisis and are willing to reconsider their strategy.

The question we pose could natural wines be a solution for a small Bordeaux wine producer? If so, what are the conditions and constraints of this process? Are the existing supply chain practices advantageous for Bordeaux natural wines' export to Japanese customer?

There exits numerous studies on supply chain related to organic products (Wyherley, 2002; Smit et al., 2008) or sustainable issues of SC practices (Verhagen, 2004; Carbone and Moatti, 2008), though not many on wines' SC. Most of the recent studies of supply chain practices in wine sector focused on the structure of the entire logistics chain and assessing the actors' performance (e.g. Chandes et Estampe, 2003); or explored the complex relationships that exist within the supply chain and the nature of stakeholders perceptions and (Monday, 2010). Little is known about specific characteristics of natural wines' supply chain management though "natural" wines by definition are more dependent on partners.
This paper proposes to partially fill this gap by presenting the different barriers and driving forces for organic wines supply chain practices focusing more on Japanese market, one of the world leaders in natural wines' import. In total, Bordeaux wines represent 25% in volume and 30% in value of total French wines import to Japan (CIVB, 2009). However, the Bordeaux natural wines have been facing challenges on the Japanese market (Bouzdine-Chameeva and Ninomiya, 2009), partly due to the supply chain problems.

Our work focuses on understanding the role and interactions of major actors on Bordeaux wine scene - wine producers, wine merchants, wine brokers, wine syndicates – and major actors of wine distribution in Japan. On one hand we explore core and distinctive competencies of Bordeaux wine chain sector, to analyze marketing and distribution solutions of Bordeaux natural wines' producers; while on the other hand we attempt to tackle requirements to natural wines' supply chain on the side of Japanese importers.

Our study has a double purpose: to model the natural wines supply chain model for Japan and identify the barriers and driving forces of the natural wine companies in the Bordeaux region, their supply chain challenges in Japan.

1: DEFINITION OF "NATURAL WINES"

There exist several different terms that are used towards eco-friendly wines: bio wines, organic wines, biodynamic wines, natural wines, authentic wines and even green wines (Krzywoszynska, 2009). Although we have chosen to use the term "natural wine" in our paper, we are aware of confusions with this term\(^1\). We use this term for organic, bio or biodynamic wines without making difference. Below we briefly explain these differences though we consider that as the sector of natural wines is still small it is not important for our research to distinguish these wines for the analysis of supply chain issues. "Bio" wines are certainly a wrong term to use as only grapes are "bio" grapes. Nevertheless this term is frequently used for natural wines emphasizing the link with bio-products.

"Organic" wines are produced by specific management practices that take care of the environment and soil. Synthetic chemicals and artificial fertilizer including pesticides are not permitted other than those specifically listed by the specific EU regulation of 2002. Totally organic wine does not exist, in either Europe or France. In fact, the term ‘organic wine’ is used to describe wines made from organically grown grapes (AB certificate in France), although other ingredients are not certified. Organic wine not only uses organic grapes but is
usually processed using the minimum of chemical intervention during the production process. There is, however, no agreed standard for this. "Biodynamic" approach in winemaking is based on the writings of Rudolf Steiner, an Austrian philosopher who lived from 1861 to 1925. The underlying beliefs are based on the cycles of the moon and the alignment of the planets which dictate the days and the times of day at which certain activities are best carried out in relation to the planting, cultivating and harvesting of crops. In addition to adhering to organic farming principles with no use of pesticides whatsoever, biodynamic calls for the application of specific plant preparations created from animal manure. Nicolas Jolly explained in his book "Le vin, la vigne et la biodynamie" (1997) how the principles of Rudolf Steiner could be adapted to winegrowing to enhance the manner in which their wines expressed their terroir. While no scientific studies exist that could either explain the underlying science of biodynamism or validate its ability to improve the quality of agricultural production beyond that of organic farming, over 600 winemakers throughout the world have adopted it (Carpenter, 2009).

Several certification processes are put in place in France for organic and bio-dynamic wines as Biodyvin, Ecocert, Demeter. International wine competitions are organised specially for organic and biodynamic wines, for wines made from certified organic grapes, and wines made from transitional grapes (in the conversion process). When biodynamic wines were put to the test in a blind tasting by the major US financial magazine, Fortune, it was the biodynamic wine that was preferred by wine critics in nine of the ten pairings.

2 : THE NATURAL WINES SECTOR IN FRANCE

The French National Agency BIO for the Development and Promotion of Biological Agriculture report (2008) indicates that in twelve years, from 1995 to 2007, the surface under bio vineyards in France has multiplied by 4.6 moving from 4,854 hectares to 22,510 ha. Moreover in the last five years the conversion of vineyards to organic or natural vineyards accelerates all over France, and the annual rate of conversion varies between 20-25% per year since 2006 (the conversion period takes three years). It becomes even more striking as the total surface of national vineyards in France reduces during the last years.

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1 In a pure direct sense, the term "natural wine" - wine made by nature without any human intervention, will actually define vinegar. We use this term in a broad sense as a wine where human's intervention is limited and is in harmony with nature (it might be bio wine, organic wine, biodynamic wine and definitely green wine).

Nevertheless organic grapes represent still only 3.3% of all French vineyards. The three major regions in France which reveal particular dynamism in this process are Mediterranean regions - Languedoc-Roussillon and Provence-Alpes-Côte d’Azur followed by Bordeaux (more precisely by Aquitaine region which involves Bordeaux area- see Figure 1.). Being on the honorable third place is pleasing though the reality of the process remains quite discouraging: the number of natural wine producers in Bordeaux is less than 300 (compared to total of 9000 winemakers in the region); the surface under organic wine farming is around 2000 ha (compared to the total of 118 900 ha) and bio certified wines are only 980 ha.

Figure 1. The surfaces under the bio wine production in France in 2007 (Agence BIO, 2008)

The number of wine producers engaged in the conversion process grows though relatively quick growth of "natural" wineries is not always accompanied by a steady growth of quality despite a heavy certification process which is put in place. Why the process is so painful?

3 : BORDEAUX WINE CHAIN: SPECIFIC CHARACTERISTICS

Bordeaux is the largest French AOC\(^1\) winegrowing area and the third largest wine-producing region in France. Traditionally the Bordeaux wine chain in is fragmented, includes various actors each having its own constraints and strategies (see Figure 2). Over the past 20 years, the number of winegrowers and wine producers in the area has decreased by more than half, falling from a total of slightly more than 20 000 in 1987 to almost 9 100 in 2008.

\(^1\) AOC – Appellation d’Origine Contrôlée. The AOC laws specify and delimit the geography from which a particular wine originates and methods by which it may be made. The regulations are administered by the Institut National des Appellations d’Origine (INAO).
Concurrently, the average size of estates has significantly increased, progressing from 5ha in 1987 to more than 13 ha in 2008, but almost 15 ha just for AOC wine producers.

During the past few years, the proportion of small estates covering less than 2ha (22% of the total and 1% of the area under vine in 2008) has considerably decreased to the advantage of larger domains, those of 20 ha and more, which now concentrate 23% of the total and 64% of the area under vine planted in AOC.

Wine estates producing natural wines are normally of a relatively small size, these "natural" wineries rarely exceed 30 ha. So far the process of horizontal integration might not be a positive sign for the development of natural wines. Organic wine farming and biodynamic winemaking by definition could not be industrialized; it is easier to launch the conversion in small vineyards than of a large wine estate.

42 wine cooperatives and 6 cooperative unions regroup 43% of winegrowers, in total they take 22% of areas and 23% of total harvests. Cooperatives exist on the principle of the mutualisation of production costs to preserve the small producers by bringing them a financial, administrative, technical and financial support. They also focus on improving the quality of wines by favoring the technical training of the winegrowers. Their place becomes particularly important for natural wine producers (Chabin 2008). CIVAM BIO 33 since 1991, or a more recent and small Bordeaux Bio Vignerons of Aquitaine unions are the vivid examples of heterogeneous reality of Bordeaux wine scene (e.g. Coop de France, 2007).

Around 100 wine brokers, more that 300 wine trade firms or wine merchants (CIVB Source, 2007) sell wines to customers.

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1 We frequently refer to wine growers and wine producers as winemakers. HSM is used as an abbreviation for hyper- and super- markets.
On average, bulk purchases withdraw as such or bottled at the estate by the wine merchant represent 53% of dispatches from cellars (see Figure 3).

Wine merchants' position in the Bordeaux wine chain is traditionally crucial as they represent for century an important economic and financial strength. They treat more than 70% of the total wine commerce and export Bordeaux wines in more than 160 countries (CIVB report, 2008). Wine brokers take care of the En primeurs\(^1\) market transactions; their major role is in sales activities for chosen vineyards and also commercializing wines under brand names.

Being at the end of the chain close to final consumers wine merchants ascertain consumers' preferences more than a wine producer. Wine producers are separated in the chain from consumers and thus they lack knowledge of the consumer market. The presence of an intermediate actor in Bordeaux wine chain confronts clients' desire, natural wines' clients prefers to know all the details of the wine production process and often meet personally a winegrower. Natural wines recently appear in wine merchants' offers, a small agency has been created recently to deal only with natural wines (Redsap - \texttt{http://www.redsap.fr/}).

However this middle position of wine merchants is not easy either as they are squeezed on the one hand by the major retailers (hyper- and super-markets, growing hard discounts during the recent five years) and on the other hand by the fact that they lack the financial resources to manage effectively customer relationships (Chandes and Estampe, 2003). Moreover the competition with other retail channels as e-commerce which is rapidly growing during the last three years starts having an effect on wine merchants' position.

The Internet wine market develops rapidly with growth rates of more that 30% since 2007 according to the e-performance Barometer - sale of on-line wine (Bressolles, 2009). In France this market represents approximately 237 million euro in 2009; it is based on some 285 principal actors with the annual rate of renewal of about 7%. "Pure players" specialized on the on-line wine commerce represent 32% of Internet sales (several of them are located physically in Bordeaux area).

The Internet sales of Bordeaux natural wines are tiny; they contribute less than 3% to total sales. 90% of buyers first visit the place and then purchase on the Internet. Nevertheless, this channel is growing mainly due to the information on bio winegrowers on the Internet which stimulates interest towards their wines and a visit the place with a potential purchase.

\(^1\) En primeur or in French – "marche des Primeurs" - is a method of purchasing Bordeaux wines early while a vintage is still in a barrel, before the wine is bottled - a year or 18 months prior to the official release of a vintage.
Bordeaux wine scene is quite complex; the relationships among actors have been cultivated through centuries and keep strong signs of old historical traditions. The question of wine chain integration is one of the major problems for Bordeaux wine scene. Bordeaux wine sector is on a collision course with the new changes in markets, new trends of consumption and new logistic channels as well (as hard discount, e-commerce, and Internet). Modernity challenges traditional prestigious Bordeaux core competency in wine.

4: RESEARCH METHODOLOGY

To analyze the main reasons of the slow rate of the conversion into organic vineyards in Bordeaux, and grasp the difficulties which wine growers and wine makers incur we adopted the approach of an interpretive case studies in eleven wineries in the Bordeaux region, with five wine merchants, and with a wine broker's agency and in parallel with three natural wines' distributors in Japan.

The interpretive case study methodology (e.g. Eisenhardt, 1989; Pettigrew et al. 2001) refers more to ethnographic methods and focuses on investigating phenomena in its real-life context. Applying this methodology to atypical extreme cases in complex and uncertain conditions has given rise to several significant studies in the last years aimed at generalized findings (e.g. Flyvbjerg, 2006; Yin 2009). It has been shown that these cases could reveal more information than numerous representative cases clarifying causes and their consequences and leading to generalizing.

To succeed with this objective we employ content analysis and critical impact technique (e.g. Porter 1980; Eden and Ackermann, 1998) as our research methodology. Through analysing a company’s comparative advantages, and difficult periods in its past, critical impact technique allows managers to better identify the internal constraints, strengths and weaknesses of the company. The links between cause and effect in this analysis enable managers to pinpoint competencies a methodology widely used in analysing critical company situations.

Research design of the procedure starts with studying the questions used to enquire about the situation of the company, export policy and supply chain practices put in place. We proceed to interview managers and/or owners in a semi-structured format. Our aim is to explore with managers the interactions among the actors of the supply chain and to reveal any distinctive features of their competencies in this chain. Each interview lasted one hour and a half at average.

4.1: Bordeaux natural wines' chain (examples from the case studies)
The passionate wine producer 1 is the pioneer of biodynamic approach in Bordeaux region. The property of 10 ha with an annual production of 20 000 bottles is one of the first in Bordeaux; they celebrate 20 years of their biodynamic wine with the 2010 harvest. Their distribution channels are traditional for Bordeaux – wine merchants and retailers (cavistes only); they start selling via Internet using some pure players of the wine e-commerce sector. The wine is sold far beyond French frontiers - to Germany Austria, Belgium, UK, Italy Switzerland and Japan;

The bio dynamic approach is employed in the big property of 80 ha of the wine producer 2 who is enthusiastic about the nature – oriented wine growing; the approach was put in place several years ago though grapes are not yet certified as organic one. In 2007 year, reputed by a very humid and cold summer, the property was on the third year of the conversion process. Diseases started spreading quickly on vines, and the owner of the wine estate (who is not a wine maker) made a decision to treat vines chemically not to loose the harvest totally; the conversion was stopped and the certification was not obtained. This example demonstrates the fragility of the conversion process; multiple risks Bordeaux winemakers incur while converting into organic wine-making. Bordeaux oceanic climate is not stable and lacks consistency compared to the Mediterranean regions of France, for example where organic farming gains more and more areas. Risks involved into the interdiction of chemical treatment of grape diseases in organic wine farming are quite high. Distribution channels for this winery are exclusively wine merchants and wine brokers (via the en Primeurs' market) as this property belongs to the old traditional Grand Crus chateaux in Bordeaux. They start selling via Internet channel however.

Wine producer 3 possesses a small vineyard of 10ha in Sauternes area of Bordeaux famous sweet golden wines. The annual production of this biodynamic property which has one full-time staff member who is an owner /manager is around 160 barrels. Wines are sold via bio agencies, wine tasting and following "a word of mouth". No special efforts of developing distribution channels are made.

Wine producer 4 of the Bordeaux Grand Cru wine estate of 14,5 ha pursues bio dynamic approach since 1997 with a consultant who visits the winery several times par week.. However they possess no official bio-dynamic or organic label - "those who know our wine knows and I am not keen on making publicity of my environmental concerns", stresses the owner. In a long run there were several critical incidents which ensured the wine producer in this choice. In 2002 and 2004, the weather was so bad that without treatment, everything
would be lost, and they sprayed vines strict minimum. In the promotion of their wines a strong accent is put on the harmonious approach to winemaking nurtured in the property for many years. Distribution channels of are mainly wine brokers and wine merchants, however direct sales (to Japan in particular) and e-commerce are also considered as the channels the company widely uses (see Table 1).

All wine producers emphasize the positive role of wine merchants if they distribute via this channel; wine merchants are praised for their deep knowledge of market and distinctive competences in distribution, particularly in foreign wine export. None of the wine producers we interviewed uses HSM retailers; Small-size natural wineries with a lower output compared to the conventional wine production yield, are not able to guarantee the quantities required by the HSM. Cavistes, restaurants, bio agencies, e-commerce better meet their distribution needs.

<table>
<thead>
<tr>
<th>Foreign trade</th>
<th>Innovative versus Traditional approach to SC</th>
<th>SC practices</th>
<th>Direct sales</th>
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<td>Wine producer 1</td>
<td>Moderate Innovative</td>
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<td>Wine producer 2</td>
<td>Intensive Traditional</td>
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<td>Wine producer 3</td>
<td>Very little Traditional</td>
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<tr>
<td>Wine producer 4</td>
<td>Intensive Innovative</td>
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Table 1. Examples of SC practices used by Bordeaux natural wines producers.

Moving forward along the Bordeaux wine chain in our study, we interviewed two wine merchants. Both of them called our attention to relatively low figures of Bordeaux natural wine production. They diversify their portfolio adding natural wines offers, though they are not eager to make special efforts for the promotion of this particular part of the market.

Wine broker, whom we met next, confirmed the position of wine merchants - natural wines are still almost absent at "en Primeur" market. On one hand it is explained by heterogeneous quality of Bordeaux natural wines and on the other hand, by insufficient quantity compared to the average transaction volume. The small wineries can’t grow up rapidly; they first seek the market to sell, invest afterward and only then increase the production. Wine broker's objectives are not entirely compatible with natural wines offers.

On the contrary to the wine merchants and wine brokers, the unions of natural wine producers are ready to make a great effort into developing new distribution channels and invest into the maturing customer relationships. However there is no comparison in the financial situation of
wine merchants, brokers and natural wines' unions, the latter have limited budget and stay within rigorous financial constraints (Cholette, 2010).

Our findings show the strong heterogeneity of the Bordeaux natural wines' production sector, the complexity of relationships among the wine chain actors of and considerable differences in solutions found by wine producers dependent on the core competencies, traditions and attitude towards innovation.

4.2: Japanese natural wines market

In 1969, French government (Ministry of agriculture and fisheries) set up their liaison office in French embassy in Tokyo. At that time, wine was drunk at the hotels or the French luxury restaurants only at special occasions such as wedding reception. The liaison office became independent as SOPEXA Japan in 1985 with increasing the export of French food and wine. However, it could be said that there was no wine market in Japan until 1990’s, Sopexa was supposed to enlighten the Japanese people. They started initially with wine brochures, booklets, with organising seminars; then in order to expand more the wine market in Japan, SOPEXA Japan tried to establish the professional vocation of a sommelier. Sommeliers are close to the consumers, the importance of their role in educating consumers became evident to SOPEXA. They invited French top sommeliers and chefs to teach French wine and cuisines in order to prevail wine, started to hold World’s Best Sommelier Competition twice a year in Paris. In 1995, a Japanese sommelier, by the name Mr. TASAKI Shinya, gained the world sommeliers' championship. Media promoted this success all over Japan, and that was a crucial point of growing interest towards wine among Japanese. Sommelier had been firstly recognized as a profession founded upon specialised training and as specialist in Japan. In 1998, a red wine boom, ‘French paradox’, occurred in Japan, the consumption of wine had increased rapidly. The sales of wine reached 298 thousand kl (see Figure 4), 242 thousand kl of bottled wine was imported, 42.6 % of imported bottled wine was from France (Nikkan Keizai, 2000). In the end of 90’s, many Japanese went to Bordeaux and Bourgogne to study wine production and tasting, received a classical wine education, they went back to Japan, became sommeliers, wine importers, cavistes, opened wine bars. A few Japanese importers noticed the existence of natural wine. Although they were generally surprised at the different

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1 These days, the term "sommelier", became a cliché in Japan, there exist a green tea sommelier, a vegetable sommelier, a food sommelier etc. Private associations find it prestigious to have sommeliers.

2 Japan holds the largest number of sommeliers in the world; 13,409 sommeliers, and 10,435 wine advisers, who sell or import wine (Japan Sommelier Association website (http://www.sommelier.jp) accessed in the March 1,2010).
taste from the one they had had before (Arai, 2005; Ohashi, 2004), caught by the fruity flavour and charm and started to import it little by little.

Figure 4. Wine consumption trends in Japan. (Source: National Tax Agency Japan)

The first signs of "Natural Wines’ boom" in Japan appeared around 2005. The term SIZEN-HA Wine’ is used in Japan instead of just ‘organic’ or ‘nature’ wines. This word can be translated as natural wine or nature-oriented wine, because organic or natural wine might be used formally and commercially. A monthly magazine specialised in natural wine, called ‘Real Wine Guide’ was first published (Hori, 2005), another popular magazine put together a special issue on Bio and Natural Wines. In the last three years many cavistes decided to specialize in natural wine.

The importers shift over into not caring much about the AOC, or the bio certificate; they rely on different sources of information, such as cavistes, bistro in Paris, BIO salons, personal network, etc.; they definitely favour direct transparent long-term relationships with natural wine producers. The key for the importers is the quality of wine. They consider that to make good wine winegrowers should cultivate good grapes in an organic way: only a wine producer close to the nature, passionate about the vines is capable to produce authentic natural wines.

4.3: Supply chain of Japanese importers (examples from the case studies)
Racine (Tokyo) is one of the most famous natural wine importers in Japan. Their sales in 2006 are about 600 Mln JPY (6 Mln USD) dealing with 150 wineries in France, Italy, and Slovenia.

Natural wine" is said to be very sensitive to the temperature and humidity. Mme. Goda, the owner of Racine, the holder of DUAD from Bordeaux, is the pioneer in the new approach of total quality temperature control - from its original storage place to the consumer in Japan. She checks the warehouse with thermometer and hygrometer, and controls the wineries with whom she deals that only reefer containers are used for wine transportation.
The transportation fee of one dry container is 130,000 JPY (1,300 USD), on the other hand, reefer container cost 800,000 JPY (8,000 USD). They sell to hotels, restaurants, and retailers. The importers trade exclusively with those who provide the mandatory conditions and meet the strict requirements. They transfer the wine a reefer truck from May to September in Southern area. The cavistes keep the wine in air-conditioning room. The export of natural wine is extremely costly. Therefore the retail price varies from 2,000 JPY (20 USD) to 4,500 JPY (45 USD). They pay 50% to the winery after the harvest and 50% after the bottling. Importers visit the vineyard twice a year at least. Maintaining close relationships with suppliers is one of the core competences of Racine.

Another example of an important actor of the Japanese wine supply chain is J.F. Hillebrand (http://www2.jfhillebrand.com/) who built up the global logistics network of wine in this decade. The importers just make a phone call to wine producers and to JFH. JFH makes arrangements on everything under EX-Works conditions from every region in wine countries to Japan in reefer containers, from one box to several cases. The importers can buy from every region and therefore concentrate themselves only on trades. Small wineries in France with whom Japanese importers deal, vary in size: from 3 ha run by the one-man farmer to more than 20 ha. Respectively the volumes exported by French wine estates to Japan are quite different. Sustainability of relations in the supply chain is both, the objective and an aspiration, of Japanese wine importers.

5: BARRIERS AND DRIVING FORCES OF WINE SUPPLY CHAIN PRACTICES

The wine sector has come to the idea of the importance of Supply Chain Management to a branch's overall performance. Wine producers become more aware of the link that centralising a significant number of value-added operations, they can move to a supply chain integration and unification approach and finally lower their expenses on logistics (Chandes and Estampe, 2003). Two out of the four models suggested in this recent study on the logistics issues on wine supply chain performance describe well the case of Bordeaux natural wine exports (see Figures 5 and 6). Some "natural" wineries once sold their grapes or must to the wine merchants or the cooperatives at the low price. They made a decision to bottle their wine by themselves, at the same time; they had to sell by themselves, bearing the risk to sell. Small ‘natural’ wineries in France exporting abroad, entrust the one nation’s trade to one importer. As a general rule, wine export from one country to Japan is realized by only one importer. This practically gives the exporters the exclusive right to sell. However, in the case of small wineries it is frequently a verbal promise based on a human relationship and trust.
To succeed in the Japanese market, the small ‘natural’ wineries need to build deep trustful human relationship with the Japanese importer; sharing the same values and philosophy. Quality and quantity of wine might vary from year to year, this is particularly true for natural wines. With close links in supply chain, the importers understand what happens in the vineyard they deal with. If there is no close relationship between a winery and an importer, the Japanese importer might switch to another supplier (Ohashi, 2004).

Wine industry in Bordeaux region has developed, being based on merchant-indirect supply chain system. Merchants control the quality, stock, physical distribution (logistics) abroad, sales promotion; they have their own brands and bear the risk in the whole selling processes. Under these circumstances the producers do not have to care about selling, can concentrate on producing. The importers in Japan can buy the Bordeaux wine easily and feel relieved,
leaving everything to merchants. Formerly, it is difficult to access the small regions because the importers need setting up the SC system by themselves to maximize a container load.

Figure 7. The comparison of the Japanese supply chain for Bordeaux and other than Bordeaux wine regions in France.

On the other hands, natural wine requires a different type of supply chain system, which must be ‘face-to-face’ direct network. Natural wine making need more labour, the crop is unstable depending on the weather, threatened by insects causing damage to crops, the tastes vary every year. The producers need to let consumers understand their hardship and philosophy (Olsen et al., 2006). In Japan natural wine importers play an important role in transmitting this information to the consumer. Natural wine importers bring producers to Japan, hold tasting events in Tokyo, in small cities, providing an opportunity to meet with and talk to the consumer. The consumers became their fans, and that makes the supply chain functioning. Several companies of wine management and wine consultancy have been established in Japan to facilitate interactions along the supply chain of natural wines – Oeno Connexion and BMO created in 1997 and 1998 respectively are the examples of this trend (see Figure 8)
Bordeaux natural wines are facing also marketing difficulties in Japan as a wine producer is separated from a final consumer. The image of Bordeaux wines on the Japanese market which is directly associated with luxury, complexity, magnificence is in discord with the image of simplicity for natural wines. Educational efforts become essential, direct links between wine producers, importers and consumers appear to be crucial to change this situation and adapt the image of Bordeaux natural wines nurtured in long-standing nature-oriented traditions of terroir. A thorough, clear understanding of the client on the end of the distribution chain could become a core strength for small wineries; a conceptualisation of decision-making based on learning about the importer's side would facilitate and improve the distribution channels. This would require a closer collaboration along the supply chain.

**CONCLUSIONS AND PROSPECTS FOR FUTURE STUDIES**

In the research we have presented the analysis of Bordeaux natural wines supply chain focusing on the Japanese market basing on several case studies performed in Bordeaux region and in Japan. A double purpose of our study was to identify the major characteristics of natural wine companies in the Bordeaux region, their current distribution channels, and on the other hand, to understand the functioning of the Japanese supply chain and Japanese importers behaviour. The choice of the Japanese natural wines market is explained by the enthusiasm and the openness of this market to the eco-friendly products and the strong presence of Bordeaux wines on this market. During the last years Bordeaux wine sector is on a collision course and needs to revise its strategy in the world markets - natural wines might be seen as a solution to work up a new axe for future growth.

Sustainable quality issue is seen as a driving force on the side of wine producer and on the side of the Japanese market. Earlier it has been shown that wine quality appears to be the key factor (and therefore, a core competence) in the stable success of a winery. In fact, all decisive themes focus on reinforcing the question of managing stable wine quality as a key to attain stability of the winery development (Bouzdine-Chameeva, 2006). In noting the varied and sometimes complex relationships within the supply chain, the research has confirmed that maintaining high quality remains the driving force for Bordeaux natural wine producers. Nevertheless our findings confirm that there are several barriers of for Bordeaux wines to enlarge their presence on the Japanese market. First, instability of Bordeaux oceanic climate and lack of consistency compared to Mediterranean regions of the south of France increases
risks for producers in the conversion process. Risks involved into the interdiction of chemical
treatment of grape diseases in organic wine farming are quite high.
Secondly, the multifaceted and fragmented supply chain system of Bordeaux wine scene with
wine producers, wine merchants, wine brokers, retailers, wine associations, union and
syndicates, growing e-commerce solutions creates barriers to successful evolution of
tradition SC practices; its complexity puts forward the issue of supply chain integrity.
Bordeaux natural wine producers continue to produce and promote wines more or less as did
their grandfathers, with a strong emphasis on "terroir" and on the particular vines that bring
out the true qualities of this "terroir", with the use of traditional intermediate actors in the
supply chain. However, this approach reveals to be in some sense indolent, as no longer
corresponds the widely varying reality of international demand. As a result, Bordeaux natural
wine producers have to urgently reassess their traditional SC practices and image. A better
understanding of “changing customer needs” could better help Bordeaux natural wine
companies reformulate their individual and collective goals, and redefine their individual and
collective strategies and improve their position.
Direct links between producers and importers/consumers in Japan are seen as a strong driving
force of the SC development for Bordeaux natural wines in Japan. The findings confirm that
successful penetration into the Japanese market bear a strong relation to the active
construction of distinctive SC links for a winery. A thorough, clear understanding of the
client on the end of the supply chain becomes core strength for small wineries and a
conceptualization of decision-making based on learning about the structure of the supply
chain management on the importer's side will facilitate and improve the supply chain
solutions. A more profound analysis of the boundaries and organizational forms appears
necessary. Future work will examine what forms the direct links might take in the supply
chain, how they can be defined, developed and implemented in the complex situation of a
Bordeaux natural wine chain.
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