

ITALIAN WINES IN CHINA'S E-COMMERCE MARKET: FOCUS ON PIEDMONT REGION PRODUCTS

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ABSTRACT

In this study an analysis was conducted on the market performance of Italian wines, in particular from Piedmont region, and consumer preference in the Chinese e-commerce market. The Chinese e-commerce platform company, Taobao, and the professional online wine businesses, Yesmywine, Wine9 and Juxian, were investigated. Chinese consumers were willing to buy famous wines at a high price (i.e. Barolo). Furthermore, sparkling wines, from Piedmont and Emilia Romagna, and typical red wines, from Veneto and Tuscany, were frequently chosen. However, Italian wineries did not pay much attention to the Chinese e-commerce market, missing potential for increasing business.

Keywords: Chinese consumers, e-commerce, Italian wine

1. INTRODUCTION

China is currently one of the world's most dynamic markets for wine imports (MASSET *et al.*, 2016). The country ranks fourth in world-class destinations for wine, with 2.1 billion Euros and 6.3 million hectolitres of imported wine. For many decades, Chinese perceived grape wine was as a symbol of Western-sophistication and wealth, often consumed only by the elite. This trend has changed significantly only in the past decade (HUANG, 2000). The demand was mostly from high-level Chinese bureaucrats and wealthy businessmen for top ranked Bordeaux wines. These wines were purchased as gifts and were rarely consumed for pleasure (YANG and PALADINO, 2015; LOCKSHIN *et al.*, 2016; SEIDEMANN *et al.*, 2016). In the last ten years, economic factors such as the rural exodus to urban areas with its ensuing access to more expensive goods, together with an increase in wealth, has spurred a wider-range of fine wine consumption (MASSET *et al.*, 2016). The interest and enjoyment of foreign wines has become especially prominent in the largest cities (Shanghai, Beijing, Shenzhen, Guangzhou or Hong Kong) where a mix of expatriates, western-educated Chinese and an open-minded population have an appetite for imported goods (MU *et al.*, 2017; TROTTA *et al.*, 2015; MITRY *et al.*, 2009; LEE, 2009). This recent trend has also affected China's social structure, which has been influenced by younger consumers who tend to purchase wine by using new e-commerce platforms, and it's continuing to grow. For example, the demand for wine consumption in December 2012 for the younger target group was 31%, and reached all the way to 45% in March 2015 (LI *et al.*, 2011). New data from 2015 shows China's per capita consumption of wine increased from 1.9 to 2 liters and the market potential is expanding (BACCA, 2015). Before the 2012 nation-wide crackdown on corruption in China, a large extent of wine consumption depended on group-purchases by public institutions, and the products tended to be high-end. However, after the Chinese Government ban on lavish banquets with great displays of wealth, this led to an almost immediate reduction in the purchase of very expensive wines from France. Italian wine imports also fell due to the Chinese anti-corruption laws, by almost 27%, but increased 7% in 2014, followed by an increase of 14% in 2015. The outcome has been a growth of individual interest in wine and increasing efforts from almost every wine producing country to tap into the growing Chinese market for Western wines (DATAMONITOR INTERNATIONAL, 2015; LANNES *et al.*, 2012; LOCKSHIN, 2014; MARKETLINE, 2015; LOCKSHIN *et al.*, 2016). Additionally, the accession of China to the World Trade Organization in 2005 stimulated imports of wine due to a decrease from 43% to 14% in tariffs (Masset *et al.*, 2016; IANCHOVICHINA and MARTIN, 2006). Wine imports have risen by more than 400% to 289 million litres from 2008 to 2013 with France accounting for a market share of around 53% (GEFFROY, 2014). This data corresponding to a growing business volume in this period of 60%. From 2014 to 2015, China's imports of international wine had a further increase (from 1.17 to 1.84 billion Euros), with France still in the top spot. In 2016, imports from France grew by 11% or 900 million euros (<http://www.inumeridelvino.it/>). It is 42% of the market, which becomes 45% when considering bottled wine and sparkling wine. Starting in 2009, bottled wine began to play an important role in total imports, while imported bulk wine gradually decreased. This reflects the maturity of the consumer's taste, and, on the other hand, reflects the upgrade of the Chinese wine industry chain (LOCKSHIN *et al.*, 2016). Currently, Italy represents 12% of China's wine import market. Italian imports increased by 33%; in terms of value, this translates to a 24% increase or 20.3 billion euros. Huge business opportunities for imported wine in the Chinese market stem mainly from the reduction in tariffs, an immature Chinese wine brand market (only major domestic brands, such as Changyu and a few others, cover China's low-end wine market) and an increasing demand by consumers for high-end products. Data show that, before 2012,

French wine always held the largest share of China's imported wine market, and maintained a sustained growth. But since the second half of 2012, this growth has slowed down and decreased. This shows that Chinese consumers are increasing the diversity of their taste preference and willing to try a variety of wines from sources around the world. Clearly this trend offers abounding business opportunities for wine suppliers and brand operators. This is especially evident in large and medium-sized markets.

Imported wine sale volume in retail channels have also increased in the past 30 years. In China there are differences among commercial supermarket retail formats; there are supermarkets targeted to high-class consumer groups, such as the Ole store of Vanguard group, and City supermarket; there are supermarkets targeted to mass consumption like Carrefour, Wal-Mart, RT-Mart, Lotus, and membership warehouse storage supermarkets such as Sam's Club and Metro; there are neighborhood community supermarkets such as Vingo shop and Seven-11. All supermarket levels cooperate with traditional importers and distributors. In order to optimize the costs, supermarkets choose the large importers who have more varieties. The supermarkets take the entrance fee and commissions from each wine. Overall the retail price of wine includes the supermarket storage cost and its profit. However in 2013, with the development of an e-commerce platform, the price is more competitive and transparent because there no entrance fees or other costs in these platforms. As a result, massive consumer supermarkets like Carrefour choose to compete on price, so now they prefer to display low-grade wine to get a competitive price (QIN, 2017).

The rapid development of Chinese e-commerce in recent years, in particular the development of comprehensive platforms, has led to a rapid development of imported wine e-commerce (ZENG and SZOLNOKI, 2016; FANG *et al.*, 2017). On the comprehensive platform, importers and distributors set up their own webpage directly for the consumers. The vertical e-business includes Business-to-Customer professional wine platforms such as Yesmywine, Wine9 and Jiuxian. The vertical wine platforms work just like importers and also cooperating with exclusive importers for some particular brands. Due to the different supply channels, wine from e-commerce has a lower cost.

An overview of the Chinese consumer of Italian wine was provided using the search indexes and sale volumes provided by the Taobao online platform. Market performance and the evolution of Italian and Piedmont wines in the Chinese e-market were also analyzed.

2. METHODOLOGY

Two kinds of wine e-commerce platforms in China were used in this study: the Chinese website for online shopping, Taobao, and professional online wine business websites (Yesmywine, Wine9 and Juxian). In China, one of the mainstream comprehensive websites is Taobao and Tmall from Alibaba group. Taobao was founded in 2003 by Alibaba's founder Jack Ma. Taobao supports Business-to-Customer (B2C) and Customer-to-Customer (C2C) retail by providing a platform for business and individual entrepreneurs to open online stores (GONG, 2016; REN *et al.*, 2012). Every individual or company can open their own online shop in Taobao: consumers can buy almost everything they need online, often at much lower prices than the ones of traditional retail channels. Sellers on Taobao list items for sale with a posted price and without a time limit excluding auctions with a fixed time-frame. This mechanism broadly allowed the use of posted price format both in online and offline retailing (CHEN *et al.*, 2015). Despite the posted price in Taobao, compared to e-Bay's online auctions, the price formation process includes several factors related to the communicated information by the seller, but above all the reputation

deriving from the feedback received: reputable sellers are found to sell more products or services at higher prices (CHEN *et al.*, 2015; ZHANG *et al.*, 2016; QIU *et al.*, 2016; FAN *et al.*, 2014; MELNIK and ALM, 2002). This aspect influences also the recommender system which represents one important advantage of online shopping, which, contrary to offline market, suggests to the consumer products they might be interested in (MO and CHEN, 2015). In 2011, Taobao split into two websites: Taobao and Tmall. Only authenticated brands can join Tmall. This new B2C platform integrates thousands of brands, manufacturers, and provides the quality assurance of goods and a seven-day without reason return service (YU *et al.*, 2013). Today it has 500 million registered users and more than 60 million people visit the network daily. Over 48,000 items are sold every minute on this platform (GONG, 2016).

As currently happens for the most used online wine sales platforms (MCGECHAN, 2013), Taobao members can use computers or smart phones to visit its website or application to shop for goods. Sellers using Taobao can show their goods to customers who can select products and order from this "market". Customers can also correspond and bargain with the sellers, similar to traditional markets in China (LU *et al.*, 2009). Taobao is an incredibly user-friendly platform, providing a shopping guide for users to learn about selecting products and making online payments (Gong, 2016). In contrast, Tmall takes advantage of the "shopping mall" model by renting out online booths to brands for a fee (ZOU *et al.*, 2014). China is new to the concept of C2C. Taobao brings the small businesses to the Internet by adopting a "small businesses to consumers" model, whereas Tmall uses a "brand to consumers" model (HU & CHECCHINATO, 2015). In 2014, Alibaba launched Tmall-International, which directly supplies the imported goods from abroad for domestic consumers. Similar to the original Tmall, the Tmall-International platform only allows authenticated foreign suppliers to join. The suppliers can directly communicate with Chinese consumers. Tmall lends them warehouses located in bonded areas (the tax free zones), and the foreign suppliers send their goods to the warehouse. Due to the cooperation between Tmall-International and customs, each package passes the customs separately and quickly. However, due to strict policies and regulations, this system can't be used with wine and cigarettes for now.

Payments are done by means of Alipay for both platforms, which is not only an intermediary payment tool, but also protects the legitimate rights and interests for both the seller and the buyer. Alipay was created in 2003 by the Alibaba Group team as an offline payment method designed to increase the use of Taobao, improving the security of payments. Unlike PayPal, which takes high proportion commission when cooperates with some e-commerce site, Alipay is free for both sellers and buyers (LI and LIU, 2007). Additionally, Taobao provides the online chatting platform, Aliwangwang, to ensure a successful transaction and increase transparency (GAO *et al.*, 2016; HOLSAPPLE *et al.*, 2014).

Taobao's reputation system is the most popular and successful one in China (LIN and LI, 2005): among the reputation growth strategies, Taobao also provides a lot of information about its activities on its website by regularly posting information on the number of buyers and sellers transacting. In addition, Taobao provides details on the total transaction volumes, for each product category. Taobao also makes publicly available several indices: the Taobao Index provides information on searches, transactions and characteristics of buyers at product category level. The Taobao Interest Index tracks searches, bookmarks, and transactions by category by day and by week (CHU and MANCHANDA, 2015).

Data from Alibaba official software IndexTao were used for our analysis. IndexTao software can analyze users data related that had searched a specific keyword in Taobao. All the data with the distribution curve have to go through an indexation process, so here the "Search index" (daily keywords search data) is an indexation of search volume,

reflecting search trends, and it is not equivalent to the times this keyword had been searched on Taobao (LI *et al.*, 2014). Users are considered as potential consumers of the specific keyword. Italian wine performance was analyzed from January 2013 to December 2015 using “Italian wine” and “Italian red wine” keywords. Data obtained are reliable, because each Alipay is associated with users personal bank account and ID card. To protect privacy, Alibaba doesn’t disclose any of the searches and the specific number of associated data. Chinese wine consumers characteristics based on the platform data were analyzed: consumers registration information were extracted using Taobao Search Index to analyze users characteristics (age, gender, wine consumption levels - based on the user’s shopping record within six months- hobbies, and the geographical distribution).

For the analysis of age range, IndexTao introduced the concept of the Preference Index (P_i), the ratio between the proportion of all the potential consumers in a specific age range and the proportion of the same consumer group of Taobao users. For example, the Preference Index of age group 18-24 is equal to the proportion of 18-24 potential consumers in all potential consumers (Alibaba) divided to the proportion of 18-24 consumers in the Taobao users. Age data is divided from 18 to 24 years, 25-29 years, 30-34 years, 35-39 years, 40-59 years, 50-59 years and more than 60 years. The level of consumption is defined by the frequency of choosing a product, either expensive or not, on the website within six months. The range is defined by low, under average, medium, over average and high level of consumption.

Data from Yesmywine were employed to analyze Italian wine market performance, available wines on the platform and the sales volume of Italian and Piedmont wines. The same research was carried out using the Wine9 and Juxian platforms. Many Chinese industries began to create their own vertical Business-to-Customer (B2C) websites. China now has many professional online websites for the imported wines. The selected B2C online wine business websites presented different wine products and established a double service, both online and offline sales platforms.

Yesmywine, a website founded in 2008, has already become one of the biggest B2C wine specific platforms in China focusing on imported wine. Its success can be attributed to an all-round, three-dimensional, interactive customer information management system (GAO and LI, 2015). It keeps a close relationship with customers through wine tasting events and other programs. According to a recent study, consumers who buy wine on Yesmywine were 18-35 year-old, middle class, located in first or second-tier cities, and frequently used the Internet (LI, 2016). This consumer group has some common characteristics: they are located in large cities and a majority of them are sensitive to the price. They pursue high consumption efficiency and a high-quality lifestyle. In the Chinese wine market, the majority of the offline wine shops are supplied by distributors, from importers to secondary and tertiary distributors. The cost increases due to changing hands in the supply chain. Some of the wines on Yesmywine come from direct purchase abroad since Yesmywine works as an importer. The other parts come from primary suppliers, or directly from the importers. Currently Yesmywine directly purchases from 11 countries, including Grands Crus Classés wine from Bordeaux, Olivier Leflaive from Burgundy, Spier from South Africa, Craneford from Australia, Beronia from Spain, Henri Abele from France, Rio Bueno from Chile, Fabiano from Italy, Erswnwe Praelat from Germany, and also some unknown brands from various wineries. Wine can be searched according to price and production areas.

Wine9 was founded in 2009 and is under the jurisdiction of three divisions: the Wine9 official website, a comprehensive platform (online store on Tabobao and Tmall) and an offline department (for wholesale). In 2015, Wine9 began to import beer, chocolate, food, and health products. Today it has 4 million registered users online and 80 offline franchisees.

Another professional wine business is Jiuxian. On the webpage layout of Jiuxian, the wine is sorted according to sales volume. Jiuxian uses low prices for their products, which determines their selection of wines, mostly the easily accepted cheap sparkling wine, or OEM (Original Equipment Manufacturer) wines, such as *Rosso&Rosso* series. Jiuxian only has a small selection of Italian DOCG (Controlled and Guaranteed Designation of Origin) red wines.

3. RESULTS

From the Taobao Index data analysis, S_i of keyword “Italian Red Wine” (Fig. 1) reached 688 in 2014 and received the highest index of 1187 in 2015. From 2013 to 2014, the average search index was about 100, while in 2015 after the peak, S_i of “Italian Red Wine”, reached about 200 on average.

Fig. 2 reported the search index of the keyword “Italian Wine”. From 2013 to 2014 the S_i had been maintained at a low level with an average of about 50. In 2014 the index appeared in a peak reaching 571. From 2014 to 2015, the S_i had been maintained at a high level. There was three index peaks: 571, 588 and 704.

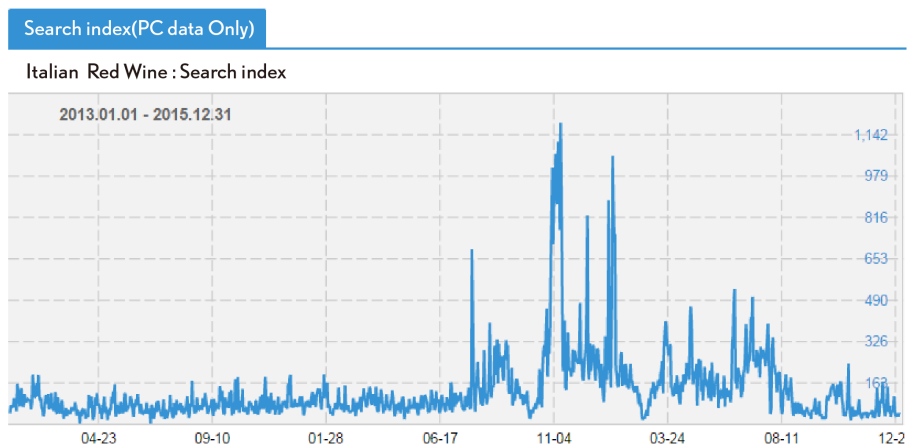


Figure 1. The S_i of keyword “Italian Red Wine”.

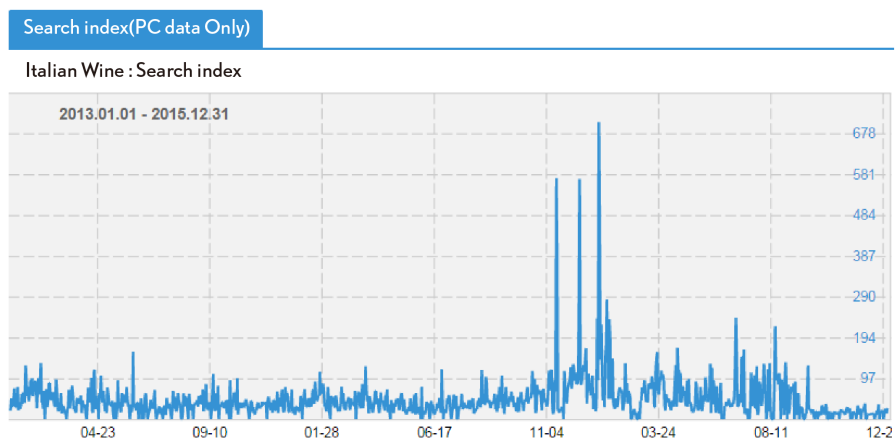


Figure 2. The S_i of keyword “Italian Wine”.

Figs. 3 and 4 show the geographical distribution of consumers who searched the keywords “Italian Red Wine” and “Italian Wine”, respectively. Potential users were concentrated in southeastern coastal regions of China. In both cases, Guangdong province had the highest proportion, while the second was Zhejiang province. The proportions of the two key words were 18.73% and 15.92%, respectively.

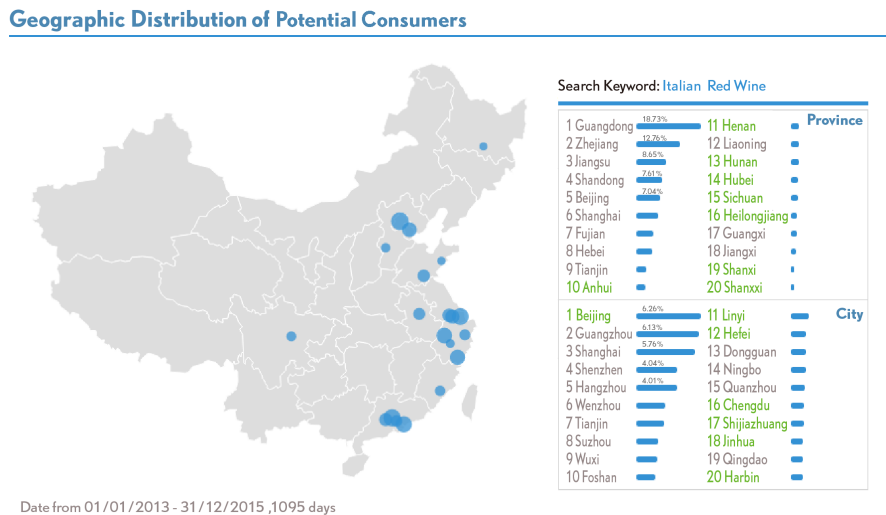


Figure 3. Geographic distribution of potential consumers under the keyword “Italian Red Wine”.

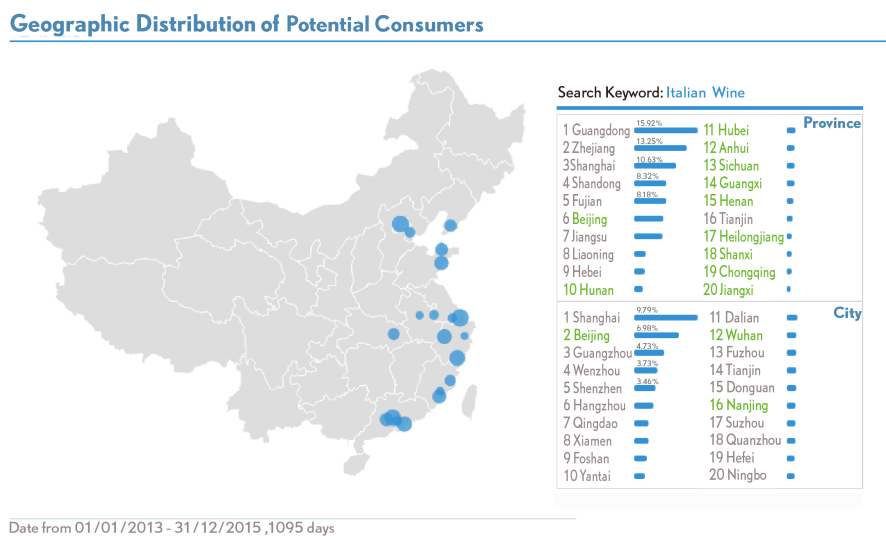


Figure 4. Geographic distribution of potential consumers under the keyword “Italian Wine”.

Preference Index (PI) was used for consumers’ age description: no users older than 60 years searched for “Italian Wine” online. Results of PI showed that consumers from the ages of 18-24 have no obvious or slightly low preference to Italian wines. The age groups 35-39 and 40-59 have a low preference for Italian wine, but the age group 50-59 has the highest preference. On the view of distribution, the 25-29 and 30-35 age groups accounted for 47% of the population in the “Italian Red Wine” keyword. Regarding the “Italian Wine” keyword, the latter two age groups accounted for 52.7%. However, a higher percentage

does not mean a higher preference. This means the potential customers are concentrated mostly in the 25-34 age range. Due to people in this age range accounting for a large percentage of the e-commerce users, they have very large base. We can see the preference index of this age as average or slightly over average, and they have a preference use for the keyword “Italian Wine” instead “Italian Red Wine”. In terms of gender, males are proportionately higher than that of females, but the difference is not significant.

Figs. 5 and 6 reveal the level of consumption (the frequency of choosing a product, either expensive or not, on the website within six months) Chinese wine consumers reported for both keywords. Potential consumers for Italian wine were concentrated in the average, over average and high-class levels, which mean they have a good acceptability of high price commodities.

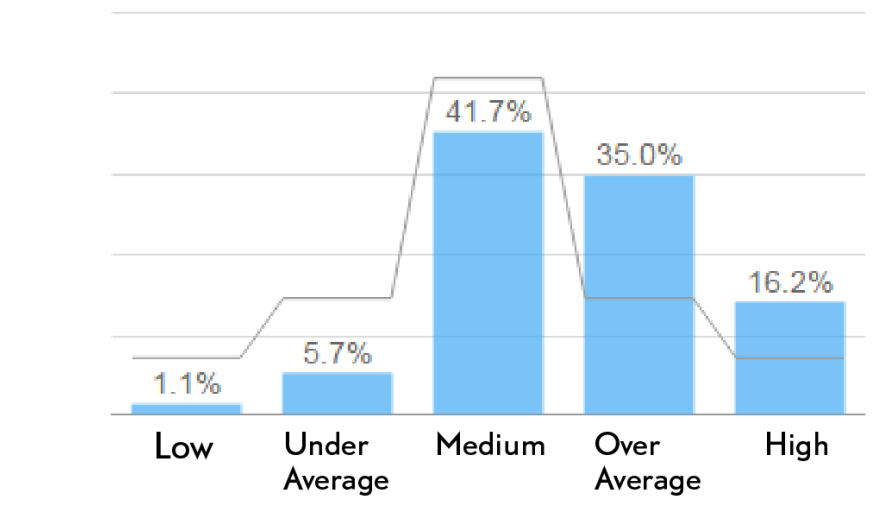


Figure 5. Consumption level of potential consumers under keyword “Italian Red Wine”.

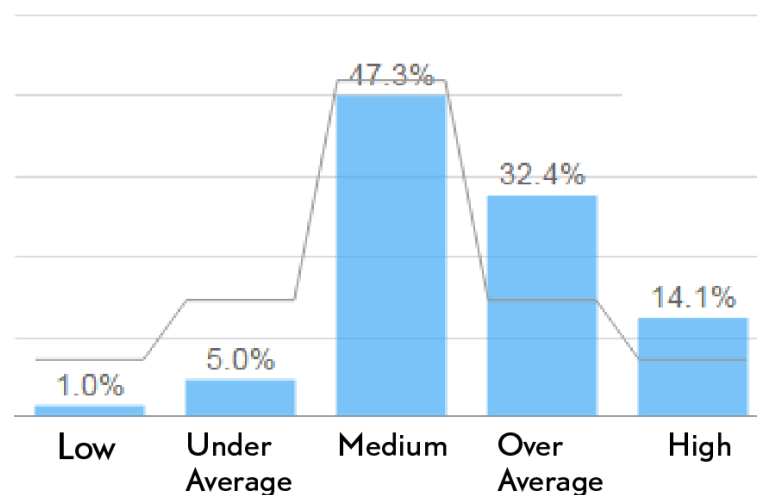


Figure 6. Consumption level of potential consumers under keyword “Italian Wine”.

Figs 7. and 8 show the same trend of hobbies of Italian wine and Italian red wine. The Taobao users who search Italian wine also have an interest in the outdoors, sports, photography, home (quality life) and collecting.

Yesmywine presents a total of 6,824 wines from 13 different countries (Fig. 9) (<http://www.yesmywine.com/>). The top three countries were France with 3,111 wines, Australia with 684 wines, and Italy with 600 wines.

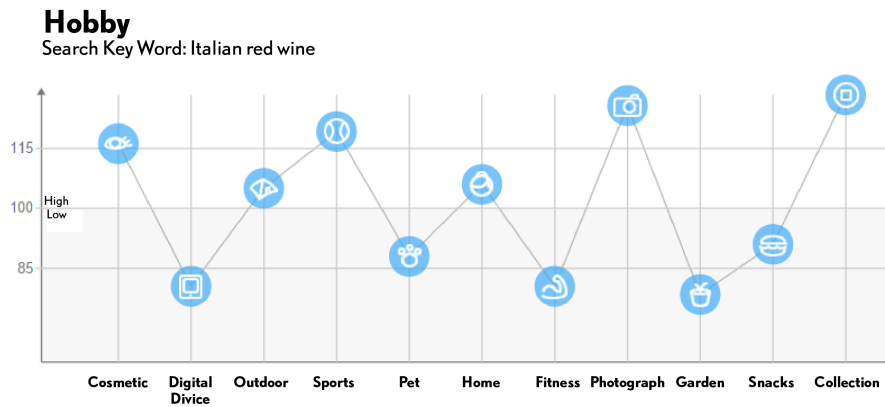


Figure 7. Hobbies of potential consumers of "Italian Red Wine".

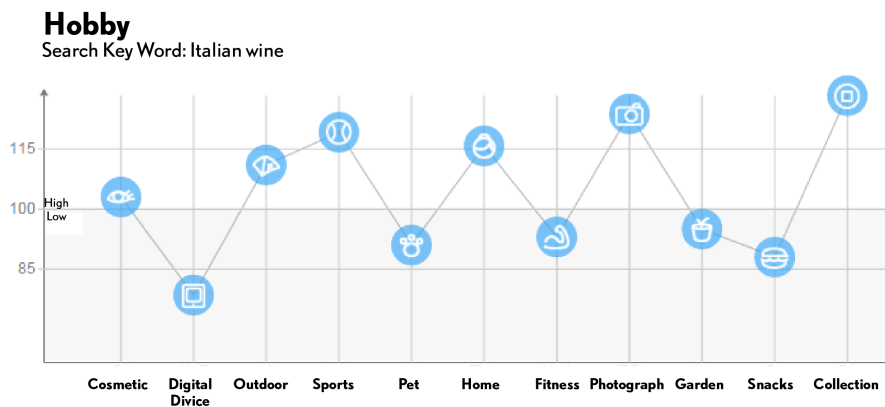


Figure 8. Hobbies of potential consumers of "Italian Wine".

Yesmywine had 600 Italian units of wine with a combination of sales (red, sparkling and white wines). This does not mean 600 varieties of wine. From the point view of price rank, Yesmywine has 8 price rankings (Table 1).

In the 1-49¥ (1-7€) range, there were 13 Italian wines. Out of this total, 6 were sparkling wines, 6 regional red wines, and 1 white wine. In the 50-99¥ (7-14€) range, there were 116 Italian wines, including 52 sparkling wines. Of the 41 red wines, there were regional wines such as Chianti, Barbera d'Asti, Montepulciano d'Abruzzo, Nero d'Avola, and Primitivo. 19 white wines, and 4 rose wines. In the 100-199¥ (14-27€) range, there were 130 varieties, including 72 red wines, 44 sparkling wines and 14 white wines. This section had 72 red wines, all which were based on the regional red wines. In this price range appeared Dolcetto d'Alba, Barbera d'Asti, Barbera d'Alba, Nero d'Avola, Primitivo, Nebbiolo, Chianti, Chianti Classico, and Chianti Riserva. In the 200-299¥ (27-42€) range, there were 108 wines, including 70 red wines, and 20 were combination sales. This price section was still strong in regional red wines, showcasing Amarone, Barbaresco, Dolcetto D'Alba,

Barbera D'Alba, Chianti, Chianti Classico, Langhe DOC, Corvina di Valpolicella, Montepulciano DOC, and Freisa D'Asti. The sparkling wines had 32 varieties, but most of them were combination sales.

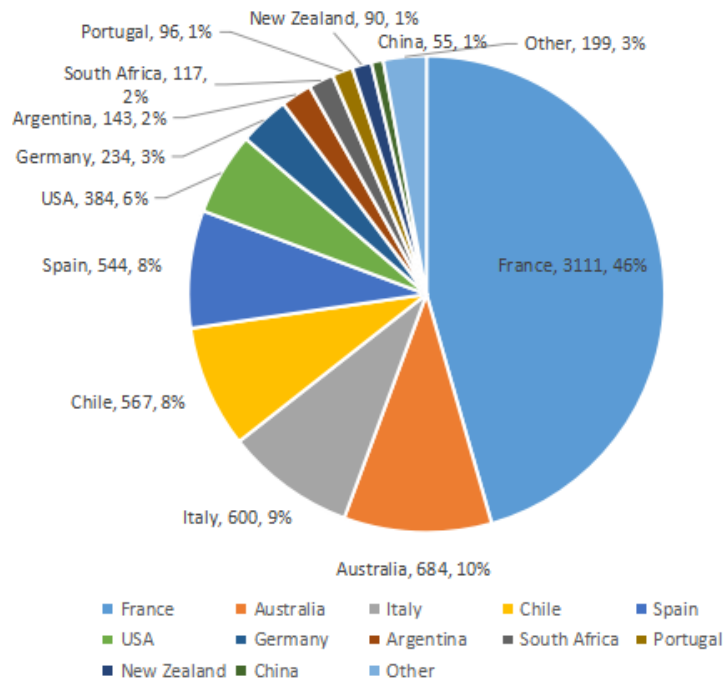


Figure 9. Origin of wine sales on Yesmywine.

Table 1. Italian wine numbers in 8 price ranges.

Price rank in Yuan	Price rank in Euro	Total number	Red wine	Sparkling wine	White wine
1-49¥	0-7€	13	6	6	1
50-99¥	7-14€	116	41	56	19
100-199¥	14-27€	130	72	44	14
200-299¥	27-42€	108	70	32	6
300-499¥	42-69€	80	55	23	2
500-799¥	69-111€	61	54	7	7
800-999¥	111-138€	22	21	0	1
over 1000¥	138€	70	59	4	7

In the 300-499¥ (42-69€) range, there were 80 commodities, including 55 red wines. Except for the combination of red wines, regional wines such as Brunello di Montalcino, Dolcetto D'Asti, and Roero rarely appeared. WGVT (Wine Grape Varietal Table) and GI (Geographical Indication), mainly were DOC (Controlled Designation of Origin) and DOCG (Controlled and Guaranteed Designation of Origin). This range has many brands of Barolo, Amarone, and Nebbiolo. There were also 23 kinds of sparkling wines. Combination sales accounted for 90% of the entire range. Other single commodities were the Proseccos. In the 500-799¥ (69-111€) range, there were a total of 61 commodities, including 48 red wines, of which 11 were Amarone, 8 Barolo, 7 Brunello di Montalcino, 5

Barbaredo, 4 Barbera, and 3 Chianti. The remaining few wines were DOC regional red, as well as 7 white wines. Sparkling wine in this range only represented the Franciacorta by Berlicchi. In the 800-999¥ (111-138€) range, Italian wine had a total of 22 items in which 21 were red wines, 4 Brunello di Montalcino, 3 Barolo, 3 Amarone, 4 kinds of Tuscany IGT, 1 Barbaredo, 1 Langhe DOC, 1 Barbera D`Alba, and 4 group combination sales. Only 1 white wine combination was sold. In the over 1000¥ (138€) range, there were 70 kinds of wines. In addition to the combined products, 59 were red wine, except for the famous Brunello di Montalcino, Barolo, and Amarone. Other wines came from well-known wineries.

In Fig. 10, Italian wine has been classified by geographical division. Italy's Piedmont region has the largest number 151 kinds of wines, accounting for 25% of the total. Tuscany and Veneto both rank 2nd. Some regions have a few wines on Yesmywine, like Campagna, which has only one wine, which is not labeled on the figure. In other northern Italian regions, Aosta Valley, Trentino Alto Adige, and Liguria do not have wines on Yesmywine. As for southern Italian regions, our research did not find wines from Molise and Basilicata on Yesmywine. However, wine from major regions can be found on Yesmywine. The most important region, Piedmont, presented a total of 151 commodities on Yesmywine. There are 109 red wines of which 32 brands are Barolo, 22 Barbera, 21 Barbaredo, 11 Dolcetto, 8 Lange DOC, 8 combination sales, 4 Nebbiolo, 1 Roero, 1 Freisa, and 1 Grignolino. Sparkling wines include 38 products, mainly the Moscato variety. White wine were 16, mainly chardonnay, Gavi and combination sales.

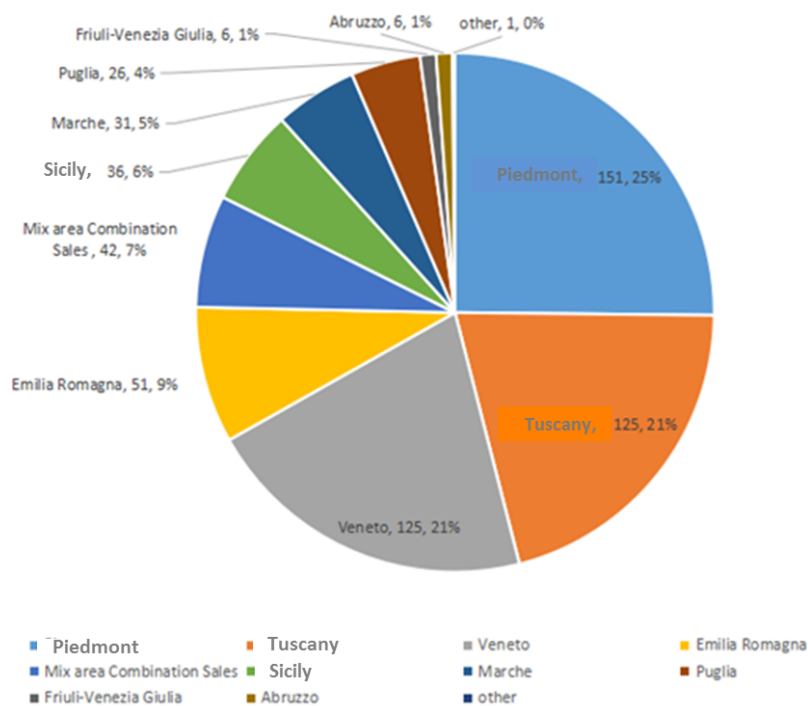


Figure 10. Italian wine geographical subdivision.

The sale volume data was collected from each sale page. In the Italian wine section, wines are ranked by sale volume. The wines sold from each Italian region are reported in Table 2 comparing the scenarios in the two considered years (2014 and 2016).

Table 2. Wines sold from each Italian region in 2014 and 2016.

Italian wines sold in 2014		Wines sold in 2016	
Region of origin	n. of labels	Region of origin	n. of labels
Veneto	9	Emilia Romagna	10
Emilia Romagna	6	Marche	5
Piedmont	2	Veneto	4
Marche	1	Piedmont	2

In 2014, in the Top 25 wines, 9 wines come from Veneto, 6 from Emilia Romagna, 2 from Piedmont. The average price was 74.16¥ (10€). The first wine sold for volume was an IGT white Malvasia sparkling sweet wine from Emilia Romagna (price at 78 ¥, 21,1582 bottles sold), followed by a Veneto IGT (price at 52 ¥, 11,2627 bottles sold), and by another Veneto IGT (price at 49 ¥, 106,920 bottles sold), which was the cheaper product in this classification. This ranking comprised mainly of wines from Emilia Romagna and Veneto. The most expensive wine was an Abruzzo DOC (price at 135 Yuan, 5,092 bottles sold), which ranked 14th. Data collected from Yesmywine in 2016 showed a different scenario compared to 2014. The best-selling wine in terms of volume remained the same as 2014, with an increase in price (88 ¥) and volume (237.839 bottles sold, +11% with respect to 2014). Moreover, new labels originating from the traditional brands were included in the rankings. Marche wine held the highest price (159 ¥). Of the Top 25 wines in 2016 were 4 wines coming from Veneto, 10 from Emilia Romagna, 2 from Piedmont, and 5 from Marche.

Number of Italian wines sold by Yesmywine platform classified in the price ranges is reported in Table 2, comparing the two considered years (2014 and 2016). None of the other wines were included in the higher price range in both the years (Table 3). The cheap wines still dominated the top sellers of Italian wines. In 2014 there were 12 sparkling wines, 12 red VDT or IGT wines, 1 white Garganega. In 2016, 18 sparkling wines in total, 5 red VDT or IGT wine, 1 white Garganega, and 1 rose Merlot were sold. The cheap sparkling wines from Emilia Romagna and Piedmont, as well as the VDT wine from Veneto, were very popular choices. Comparing 2016 with 2014, sparkling wine increased in 2016 and, on the contrary, red wines decreased from 12 to 5 products. The sparkling wine was very profitable and the red wine sold as usual. The average price of the top 25 Piedmont wines was 302¥ (42€). It was 4 times compared to the Italian wines, due to the high price of Nebbiolo.

Table 3. Classification of Italian wines in function of price range. The comparison between the scenarios in 2014 and 2016 is reported.

Price rank in Yuan	Price rank in Euro	Total number in 2014	%	Total number in 2016	%
1-49¥	0-7€	4	16%	4	16%
50-99¥	7-14€	16	64%	19	76%
100-199¥	14-27€	5	20%	2	8%

The top 25 Piedmont wines in 2014 were divided: 11 sparkling wines and 14 red wines. Moscato was the most popular variety (average price was 108¥, 14€). The most popular red variety was Nebbiolo with an average price of 728¥ (101€). In 2016, the top 25 Piedmont best sellers had changed. This may be due to some wines being sold out. The

new data from February 2016 shows the same trend. There were 10 sparkling wines and 15 red wines. In comparison with the top 25 of Italian wines, the Piedmont ones had a higher price. Moscato was still the most popular white variety with an average price equal to 101¥ (14€), while Nebbiolo was the most popular red variety with an average price of 811¥ (112.5€). The best seller of Piedmont wine from both considered years was a sweet sparkling wine (80% Malvasia, 20% Moscato) with an increased sales volume, growing from 4,843 to 11,311 bottles (+57%). However, the increase of red wine was very slow, with sales volume only several hundred, even though some new red wines appeared in 2016. Overall, Yesmywine has sold a very important number of Italian wines. Most of them are cheap red wines and sparkling wines. Some of these wines are only produced for foreign market and can't be found in the Italian market. Some of the bulk wines are bottled in China. The real bottled and high quality Italian wines don't have a gratifying performance in the Chinese e-commerce market. Yesmywine does not assume the obligation to promote Italian wines. For each product, Yesmywine describes the wines in detail, including brand, winery information, origin, and also a brief introduction of the country. However, it is possible to find on the wine page some false information. This is especially true regarding information on the labeling of wine-producing areas, classification, the winery's name, and the verification method or the introduction of the wine. It is not comprehensive because oftentimes when the information is translated from Italian to Chinese it can lose the correct meaning.

In 2014, the best wine seller on Wine9 was Moscato from Piedmont. The first (price 168 ¥) has sold 13,372 bottles, while the second one (79 ¥) sold 13,456 bottles. Sale volumes were much higher than the third. In fact, in third place was a red wine from Veneto (389 ¥) with sales volume equal to 5,022. This is not only because of the lower price of Moscato, but also due to Moscato being an easy to drink wine with low alcohol percentage. In China, Moscato is popular for both male and female consumers. Moscato in 2014 had a beautiful blue bottle and label, according to the consumer's comments. They consider Moscato to be the "best party wine". In 2016, the ranking of the top 25 Italian wines changed. This time the first place was a Moscato Spumante from Emilia Romagna (78 ¥, 7,097 bottles sold). Piedmont wines positioned in last place. Wine9 had a higher price in top 25 sellers wine compared to that of Yesmywine. Wine9 chose to cooperate with several famous wine brands like Zonin, Masi, Banfi, and Citra and has paid more attention to Italian red wines. The regional red wines from Veneto and Tuscany were also popular.

In 2014, 7 Piedmont products were sold on the Wine9 website (Table 4). Moscato, Gavi and Barbera varieties represented this rank with different prices (with a maximum of 1,299 ¥ of 2 Barbera, to 79 ¥ of Moscato²). However, in 2016, only Moscato and one brand of Malvasia were the only Piedmont wines that could be found on Wine9.

Table 4. Piedmont wines on Wine9.com.

Rank	Classification	Variety	Price/Yuan	Sales volumes (bottles)
1	/	Moscato 1	168	13772
2	/	Moscato 2	79	13456
3	DOCG	Gavi 1	398	4469
4	DOCG	Barbera 1	238	3702
5	DOCG	Moscato 3	99	3629
6	DOCG	Gavi 2	298	3304
7	DOC	Barbera 2	1299	3140

Ending in 2014, 7 from Piedmonts wines on Wine9.com.

Table 4. Continues.

Rank	Classification	Variety	Price/Yuan	Sales volumes (bottles)
1	/	Malvasia 1	118	1821
2	/	Moscato 4	89	1820
3	/	Moscato 5	78	1742
4	/	Moscato 6	88	698

Ending in 2016, 4 Piedmonts wines on Wine9.com

Analyzing the ranking of 25 Italian wines sold through Jiuxian, in 2014 the top 5 wines sold were Piedmont table wines sold at a maximum price of 59 ¥ and a minimum of 29 (Piedmont table wine is the lowest in the top 25 of Italian wines). In general Piedmont wine accounted for 52% of Italian wine sold. The most expensive wine sold in 2014, and ranked 17th, was a DOCG in Apulia at 269 ¥. In 2016, Piedmont wines were reduced by 36%, which fell to the last place in the ranking. However, regarding table wines, they were replaced in 2016 by important DOCGs. Nebbiolo, with high prices (1099 ¥) was in 22nd place. At the top of this ranking was a Lambrusco of Emilia Romagna (168 ¥), followed by a Merlot Veneto and, third, a Piedmont Muscat (79 ¥). In 2016, Piedmont wines sold on Jiuxian decreased by -50% (from 18 to 9 products) (Table 5).

Table 5. Piedmont wine on Jiuxian.com.

Rank	Classification	Variety	Price /Yuan
1	WGVT	Grapes mixture 1	59
2	/	Grapes mixture 2	69
3	WGVT	Merlot, Sangiovese 1	49
4	WGVT	Merlot 1	29
5	WGVT	Moscato 7	39
6	DOCG	Moscato 8	128
7	/	Moscato 9	79
8	/	Moscato 10	69
9	/	Moscato 11	59
10	/	Moscato 12	69
11	WGVT	Dolcetto, Barbera, Pinot nero 1	99
12	WGVT	Chardonary, pinot grigio 1	59
13	WGVT	Barbera 3	79
14	/	Malvasia 2	96
15		Moscato 13	118
16	DOC	Barbera 4	88
17	DOC	Croatina1	398
18	DOC	Barbera 5	699

Piedmont wine present on Jiuxian.com in 2014.

Table 5. Continues.

Rank	Classification	Variety	Price /Yuan
1	DOCG	Moscato 8	79
2	/	Mix 1	118
3	/	Malvasia 1	79
4	/	Prosecco 1	158
5	/	Moscato 14	149
6	DOCG	Nebbiolo 1	1099
7	/	Moscato 13	118
8	/	Moscato 9	89
9	/	Moscato 4	78

Piedmont wine present on Jiuxian.com in 2016.

This development saw the elimination of table wines and the affirmation of sparkling wines. Furthermore, there was an introduction of quality wines, such as the Nebbiolo variety selling at the price of 1,099 ¥.

In Table 6 a comparison between the sales ranks of Piedmont wines on the various online sales platforms is reported.

Table 6. Comparison between ranks of Piedmonts wines sold by the different considered online platforms in the two years (2014 and 2016).

Rank	Yesmywine				Jiuxian				Wine9			
	2014		2016		2014		2016		2014		2016	
	Variety	Price/Yuan	Variety	Price/Yuan	Variety	Price/Yuan	Variety	Price /Yuan	Variety	Price/Yuan	Variety	Price/Yuan
1	Malvasia	68	Sparkling and sweet Malvasia	65	Grapes mixture 1	59	Moscato 8	79	Moscato 1	168	Malvasia 1	118
2	Martini	107	Fragolino	98	Grapes mixture 2	69	Mix 1	118	Moscato 2	79	Moscato 4	89
3	Moscato	89	Moscato 2	69	Merlot, Sangiovese 1	49	Malvasia 1	79	Gavi 1	398	Moscato 5	78
4	Moscato 2	79	Grapes mixture 1	68	Merlot 1	29	Prosecco 1	158	Barbera 1	238	Moscato 6	88
5	Barolo	259	Sweet white sparkling wine	59	Moscato 7	39	Moscato 14	149	Moscato 3	99	\	\
6	Moscato fruit	105	Moscato sparkling	110	Moscato 8	128	Nebbiolo 1	1099	Gavi 2	298	\	\
7	Moscato rose	148	Moscato 15	212	Moscato 9	79	Moscato 13	118	Barbera 2	1299	\	\

4. DISCUSSION AND CONCLUSIONS

Our research has confirmed the rapid evolution and development of the wine market, in particular Italian and Piedmont wines, in China. The use of online sales has made this market even more dynamic in the short-term and becoming increasingly accessible by more target consumers. The more important wine e-commerce platforms are Yesmywine, Wine9, Jiuxian, and the comprehensive platform, Taobao.

Italian wine is ranked fifth in the wine market in China, after France, Chile, Spain and Australia, but Italian sparkling wine ranks first. In fact, our research has found that buying sparkling wine is experiencing a period of strong expansion, especially for red sparkling wines. This was evident when comparing 2014 with 2016. Consumer profiles from Taobao data described young consumers being especially attracted to medium-high level products in terms of price. This result is confirmed also in FOUNTAIN and ZHU (2016). The evolution of red wine typology purchased from 2014 to 2015 also justifies the changes in the Italian wine rankings sold through the other online sales platforms considered in this work. The data confirmed that the Chinese red wine market has grown by 66% from 2009 to 2014 (EUROMONITOR, 2015), and 92% of wine consumption in 2013 was red (HERMOSO, 2014).

Potential consumers are those who are looking up wine on e-commerce platforms, but not necessarily purchasing the products. It's worth noting that consumers looking for "Italian wine" on Taobao do not mean that they are buying it (MITRY *et al.*, 2009; LEE, 2009). Most of the potential consumers are concentrated in the southeastern coast of China because are concentrated mainly in big cities. However, the society in rural China has changed under the network economy and the e-commerce developments (GENG *et al.*, 2016).

In recent years, the imported Italian bulk wine has had a slight increase in volume; however it still maintains a high average price among the important countries. This phenomenon ensures that the Chinese market does not have low-end Italian wines and protects the high-end Italian wine market.

Our analysis of the top 25 sellers from professional online platforms shows that Chinese consumers prefer sparkling wine from Piedmont and Emilia Romagna. The typical original red wines from Veneto and Tuscany are more saleable. The data shows Piedmont sparkling wines are much more popular in China compared to the Piedmont red wines. However, the tendency of Chinese consumers to increasingly buy expensive wines, compared to previous years (ZENG and SZOLNOKI, 2016), is confirmed by our results that highlight as consumers are willing to pay a high price for Piedmont red wines like Barolo. As reported in MASSET *et al.* (2016), the increased interest in fine wine consumption in China is linked to improved economic opportunities and political transparency has led the population to adopt traits from Western lifestyles. At the same time, Chinese government policies have altered consumer behavior by favoring healthier red wine consumption. Finally, a more educated and wealthy class has emerged a fondness for fine wine (SUN, 2009).

Compared to Wine9 and Jiuxian, Yesmywine has more Italian wine and better descriptions of its wine, but problems still exist. Italian wineries should enhance cooperation with the Chinese importers like Yesmywine. This includes supervising the marketing process and assisting the importers with the wine descriptions on their websites. This could be done by wine producers in Italy translating its brand and wine in Chinese for the convenience of local consumers, and try to associate the wine with its cultural and historical background, an element loved by Chinese consumers. Additionally, Italian wine producers should try to explain how the wine can be combined with various Chinese dishes on the description pages. If there is no appropriate Chinese dish to pair

with the wine, try to introduce some Italian typical dishes, and combine with Italian food culture to attract consumers (LOCKSHIN *et al.*, 2016). Traditionally, wine is developed in each locality as an accompaniment to local foods. Wine is now traded globally, creating challenges for matching wine with cultural customs and cuisines typical of countries where wine is not a traditional beverage. Furthermore, imported wine is also considered a status symbol in some countries (LOCKSHIN, *et al.*, 2012; 2016). To buy wine in China is more than just the product, but it's also buying the foreign wine culture (CHINA MARKET, 2011). The translation of wine brands and labels plays a key role in conveying the wine's message to potential consumers and these translations must deal effectively with culture-specific items (CHAMPNEY, 2014). Parallel, China's e-business environment is ripe full of opportunities for wine sellers due to the following reasons: first, China does not have a mature wine retail terminal chain compared with Italy. Second, China has a mature Internet platform system and a huge user-base. Third, China is mature in third-party payment providers and has low logistics costs.

A statistically significant difference between online and offline border effects in China has been demonstrated by LI *et al.* (2016). In online trade, unlike offline trade, local governments face difficulties in controlling border effect and to restrict online trade: this effect due to the existence of government protectionism in the offline market should be used by Italian producer of wines.

Data from Taobao showed that the 25-35 age group has more preference for Italian wines than French ones. Social media has significantly influenced this age group, which is a big opportunity for wine producers to advertise their products. This is seen as an effective tool compared to conventional advertising since it provides quick and informative details and gives rise to an increased number of responses (EISEND & KUSTER, 2011; LOCKSHIN *et al.*, 2016).

In 2015, Wine9 gradually ended cooperation with the importers and began to purchase and import wines all on their own for the purpose of increased profits. This reform had a negative impact on the Piedmont wine industry. The change also created new problems of developing a professional online wine platform. For example, they didn't have experience with wine selection or strong financial support that large importers have. When they skipped the importers, Wine9 had difficulty with wine selection and the financial support was not enough to support the diversity of wine. These reasons caused the varieties to decrease Piedmont wine on Wine9. However, this phenomenon just shows how important the process is for the development of professional online wine platforms and the cooperation with importers.

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