PROFILING WINE CONSUMERS BY PRICE SEGMENT: A CASE STUDY IN BEIJING, CHINA

W. MU, H. ZHU, D. TIAN and J. FENG *
College of Information and Electrical Engineering, China Agriculture University, 209# No.17 Qinghuadonglu, Haidian district, Beijing, 100083, P.R. China
*Corresponding author. Tel.: +86 1062736717; fax: 13581585962
E-mail address: fjying0306@163.com

ABSTRACT

This study aimed to analyze and identify the purchase behavior and preferences of 976 Chinese wine consumers, particularly the differences in their demographics, purchase behaviors and recognition about wine based on a price segmentation categorized as High, Moderate, and Low Spenders. Price segmentation was defined as the price typically paid for a bottle (750 ml) of wine for daily drinking at home. Significant differences among the three segments were discovered based on income, educational background, job category, purchasing places, favorite brands, recognition of the importance of wine attributes and acceptable price for gift-oriented wine. Research on market segmentation based on price about Chinese wine market is limited. The current study provides insight into market segmentation and may serve as basis for future research.

Keywords: consumer behavior, consumer preferences, wine market, market segmentation

1. INTRODUCTION

The Chinese wine market has expanded in recent years, China produced 1.12 billion liters of wine and consumed 1.6 billion liters of wine in 2015, and China ranked ninth in terms of wine production and fifth in terms of wine consumption in the world (OIV, 2015), thus indicating that China has been a major player in the international market (VINEXPO, 2013). Trade reports show that the red wine sector is growing at a significant rate (EUROMONITOR INTERNATIONAL, 2013). The total volume of wine that China imported in 2015 reached 554 million liters, which is approximately 45% higher than that in 2014 (UN TRADE, 2015). The annual growth rate of the Chinese wine market is 25%-30% (CHINA DAILY, 2012). However, the per capita wine consumption in China is only 1.17 liters a year; therefore, the wine consumption of each Chinese consumer is not more than two bottles (750 ml/bottle) each year, whereas the world average is 3.32 liters (Wine Institute, 2015). The Chinese wine consumption per capita is far lower than that in western countries, and thus opportunities for growth are vast. Undoubtedly, as one of the emerging and new wine markets in the world, it can be forecasted that Chinese wine market will attract more and more domestic and international wine producers, marketers and researchers.

It is widely accepted that firms need to understand their consumers, which in turn requires analysis of all the dynamics and factors influencing consumers' buying behavior so as to improve their competitive advantages and business performance (GUNAY and BAKER, 2011). Understanding the purchase behavior of Chinese wine consumers is crucial because preferences and behaviors of these consumers significantly affect the development direction of wine markets (CHRISTODOULIDOU and JAMES, 2011). Consumer behavior is a cornerstone in marketing strategy and it involves conceptual dimensions such as decision-making, values, motivations, self-concept and personality, expectations, attitudes, perceptions, satisfaction, trust and loyalty (COHEN *et al*., 2014). Consumers do not have homogeneous taste preferences (King *et al*., 2012). Thus, segmenting the market is useful because different people have various needs (DOLNICAR, 2002). Consumers within a segment are relatively similar, and consumers between segments are comparatively different (BRUNNER and SIEGRIST, 2011). Thus, segmentation is a relevant tool in strategic marketing, which helps researchers understand consumers (DOLNICAR, 2002).

Market segmentation is defined as the process of dividing the total market into homogenous segments of consumers with similar needs and wants and the segmentation process addresses the needs of each subgroup efficiently (MARSHALL and JOHNSTON, 2010). Market segmentation is widely used in marketing products (RONDANCATALUÑA and ROSADIAZ, 2014). GUILLET and KUCUKUSTA (2016) provide a method for segmenting spa consumers according to their preferences in the selected spa attributes. Chen *et al*. (2013) use the market segmentation based on consumer motivation to analyze the bed and breakfast industry in Taiwan. PRAYAG *et al*. (2014) identify three clusters of travelers based on their service expectations, and determine that cultural differences are crucial for heterogeneity in travel behavior. CIRER COSTA (2013) investigates price formation and market segmentation in seaside accommodations. BRUWER and BULLER (2012) provide insights into the consumer behavior characteristics and consumption dynamics of Japanese wine consumers, explore the validity of existing generic consumer segmentation of the Japanese market, and consider its suitability to predict wine-purchasing behavior. VOORHEES *et al*. (2011) propose a novel perspective to improve segmentation in the hotel industry. Simpson and BRETHERTON (2004) utilize market segmentation based on lifestyle of customers to explore the wine tourism context.

Various studies on wine consumption have been conducted in different countries, but those on market segmentation in the Chinese wine market are scarce. OLSEN *et al*. (2015) divide wine consumers in the United States into three segments based on consumer variety-seeking behavior, namely, high variety-seeking, moderate variety-seeking and variety avoiders and find significant differences in high variety-seeking consumers compared with moderate variety-seeking and variety avoiders. MOLINA *et al*. (2015) identify the different segments of wine tourists who visit Spanish wineries. COHEN (2015) tests a segmentation of Hong Kong wine consumers based on the perception of wine labels and finds that approximately 95% of young Hong Kong Chinese wine consumers prefer "elegant contemporary" labels with red as the dominant color. GERGELY and DIETER (2014) test the segmentation of wine consumers based on the usage of sales channels and define six segments that are aggregated into two groups, namely, basic (discount, supermarket and food-retail consumers) and premium (cellar-door, wine-shop and multichannel consumers). TANG *et al*. (2011) use cluster analysis to divide wine consumers into six segments, namely, price-conscious wine consumers, involved consumers, knowledgeable consumers, image-oriented consumers, indifferent consumers, basic consumers, enjoyment-oriented consumers, and social consumers. BRUWER *et al*. (2002) identify nine different segmentation variables in wine market studies in Australia: quality, consumption, risk reduction, occasion based, cross-cultural, behavioral, involvement, geography and wine-related lifestyle. Wine knowledge is used in several segmentation studies on wine consumers, such as works of VIGARELLIS (2015), BRUWER and BULLER (2012), and JOHNSON and BASTIAN (2009).
The main segmentation variables used in existing studies are mainly related to consumers (interest in wine, knowledge of wine, motivations, sensation-seeking attitude and behavior, cultural variables, values and lifestyle) (MOLINA *et al*., 2015). However, studies that conduct segmentation based on consumers' perception of wine by price paid for a bottle (750 ml) of wine for daily drinking in Chinese wine market are non-existent. And according to the Wine Intelligence China Portraits (2015), Developing Drinkers who enjoy wine flavor, regard wine as a major part of their lives, and thereby often drink at home occupied an increasingly large proportion of Chinese wine consumers. Therefore, this topic is a new area for Chinese wine market research.
The current study aims to provide insight into the consumption characteristics and preferences of Chinese consumers in wine. Further the study categorizes consumers into three segments, namely, high, moderate, and low Spenders based on the preferred wine price for daily drinking, explores the difference in the three groups in Beijing and provides valuable information and marketing suggestions on the Chinese wine market for wine marketers, wine business owners and other stakeholders.

2. MATERIALS AND METHODS

2.1. Conceptual framework

Various studies focused on wine market segmentation (see literature review). Some studies highlighted consumer demographics, such as sex, age, income. Some studies focused on consumer consumption habits, such as consumption occasions, purchase places, channels of obtaining wine information. Other studies focused on consumer preferences about wine attributes, such as quality, brand, flavor and wine labels, and some examined consumer recognition of wine, such as knowledge in wine. The variables that can be used for segmentation can include consumption habits, cognitions, perceptions and acceptability. Therefore, a conceptual model was developed to show and examine the

potential segmentation variables that could be used for the segmentation of the wine market. The conceptual model is presented in Fig. 1.
In the current study, price segmentation is defined as the price typically paid for a bottle of wine for home consumption, provides a chance to understand differences among the segments.

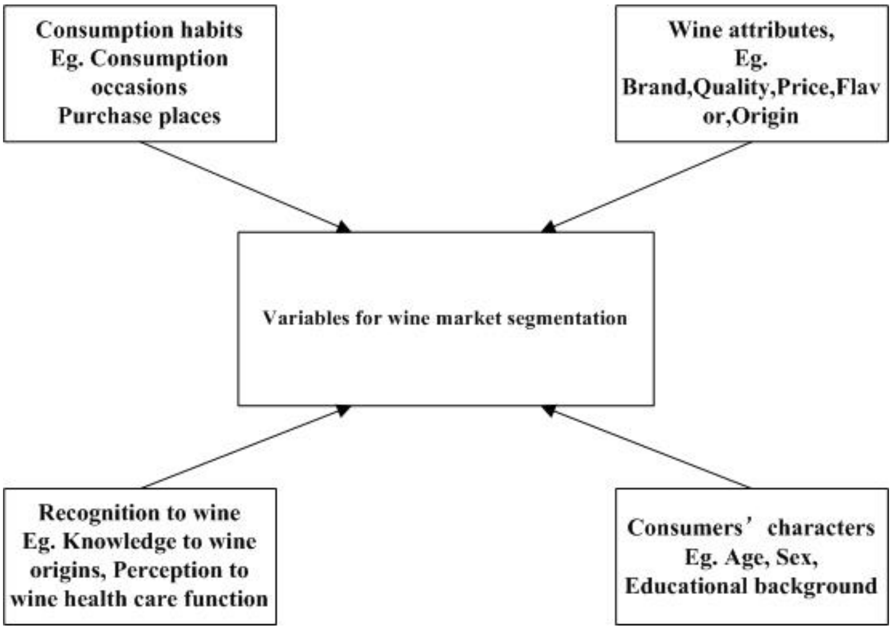

Figure 1. The conceptual model.

2.2. Questionnaire

The questionnaire on the consumption characteristics and preferences of consumers in wine was designed on the basis of the literature to collect information on consumer behavior. The questionnaire consisted of 20 questions, organized into four sections: consumer demographics (gender, age, level of wage, educational background and job category), consumers' purchase behavior (frequency of wine consumption, occasions for wine consumption and purchasing places), consumer awareness and preference in wine (consumers' recognition of wine attributes, cognition of the best or worst wine origins and awareness and preference in wine brands), consumers' acceptable price for wine (acceptable price for daily drinking and gift-oriented consumption).

2.3. Survey

In this research, Beijing was selected as the case because it is one of the most developed areas in China, and it is one of the cities with high wine consumption in China (WANG, 2006). Consumers' demand for wine in Beijing may indicate the future demand trends in China. A cross-sectional survey was conducted in Beijing, from September to October 2014. Consumers' characteristics were investigated on the basis of consumption behavior and wine preferences.
Questionnaire surveys are usually conducted via telephone, online, or face-to-face interviews. The face-to-face interview and online survey were employed in this study to

ensure sufficient sampling, given that respondents' cooperation is difficult to guarantee through telephone interviews. The process of the two research methods is as follows.

Face-to-face interview:

- ✓ First of all, six representative wine retailers in Beijing were selected to participate in the survey. Three supermarkets (Merry Mart, Carrefour and Wu Mart) and three wine stores (Guijie branch, Dongzhimen branch and Donglu branch of Cheers, which is a popular wine store in Beijing) were identified.
- ✓ Secondly, five undergraduate students from China Agricultural University were chosen as investigators. The students were recruited and trained before the survey.
- ✓ Thirdly, the face-to-face survey was conducted by randomly selecting the interviewees. The surveys were conducted between 9:00 and 17:00 and a typical respondent who purchased wine was given approximately 10 minutes to complete the questionnaire. After the five-day survey, 410 questionnaires were obtained. The questionnaire was reasonable and concise, and the survey was supervised by trained investigators. The completion of the questionnaires was preliminarily ideal. All the answered questionnaires were valid.

Online survey:

- ✓ Firstly, a famous professional questionnaire survey website in China called SOJUMP was used to ensure that random consumers in different areas could participate in the survey.
- ✓ Secondly, investigators released the corresponding website through different social media, such as WeChat and QQ to ensure the high respondent turnout of wine consumers in different regions in the survey. The online survey lasted one week and 604 questionnaires were obtained. After disregarding the incomplete or the logically paradoxical questionnaires, 566 valid questionnaires were acquired.

The questionnaire used in the online survey was same as that in the face-to-face survey. However, in the online survey, respondents could fill out the questionnaire at a convenient time and without a time limit. And the questionnaire survey website provided storage and downloading functions, so that analysts could examine the results at any time. A total of 1,014 questionnaires were distributed, and 976 valid ones were obtained. The recovery efficiency reached a high 96.3%.

2.4. Statistical methods

The collected information from the survey was transformed into statistical variables and processed by SPSS software 19.0. Descriptive statistical method and chi-square analysis testing were adopted to analyze the relation between consumers' demographics and purchase behavior which includes the frequency and occasion of wine purchase and the demographic differences among price segments. The mean responses with the standard deviation, frequencies and percentages of responses in each category were calculated and presented in tables and graphs.

3. RESULTS AND DISCUSSIONS

3.1. Consumers' demographics

Table 1 shows the consumer demographics by gender, age, wage level, educational background and job category. The sample consisted of 455 women and 521 men. The most common age group was under 25, followed by 26-35. Per capita monthly income was nearly evenly distributed from 2,000 to 10,000. Well educated respondents (undergraduate and above) dominated the sample (74.9%). Staff members in enterprises (44.5%) represent the most common occupation in the job category, and they are followed by students, thus explaining the high educational level and young age of most of the respondents.

Table 1. Statistical characteristics of the respondents.

Demographics	Category	%,N=976	Demographics	Category	%,N=976
Gender	Male	53.4	**Educational background**	Junior high school and below	1.7
	Female	46.6			
Age	Under 25	45.9		Senior high school	8.6
	26-35	36.4		Junior college	14.8
	36-45	11.8		Undergraduate and above	74.9
	46-55	4.9		Government official	
			Job category	Staff in enterprises	7.4
Per capita monthly income (CNY)	Above 55	1.0		Liberal profession	44.5
	Under 2000	23.4		Farmers	11.9
	2001-3000	11.6		Education departments	0.3
	3001-4000	15.7		Students	4.4
	4001-5000	17.7		Unemployed/retired	
	5001-7000	15.3		Else	25.0
	7001-10000	12.0			2.2
	Above10000	4.3			4.4

Notes: N, the total number of respondents.

3.2. Purchasing behavior

Some studies considered wine as a female product (LI *et al*., 2011). However, a qualitative study (LIU and MURPHY, 2007) determined that wine buying is a male interest in future Asian markets. Age was also found to be correlated with wine involvement (BRUWER, 2013). Therefore, a chi-square test was used to examine the difference of gender and age on the frequency of wine purchase. A significant difference caused by age was identified (Table 2).

Table 2 shows that approximately 18.0% of the men and 15.4% of the women often drank wine. While considering the difference of gender on wine drink, the chi-square test was insignificant, thus indicating that the frequency of wine consumption among men and women does not significantly differ. This result, which is consistent with that of FORBES (2012), suggests that further research could be conducted to explore the effect of gender on the frequency of wine purchases in China. The 26-35 age group dominated the cluster of often purchased wine. The under 25 age group mostly purchased wine occasionally, thereby indicating that young and middle-aged consumers preferred wine. Young people appeared to be the target of wine marketing in China (JENSTER and CHENG, 2008; LIU and MURPHY, 2007).

Table 2. Difference of gender and age on the frequency of wine purchase.

Variables	Wine purchase frequency (%) (N=976)			Chi-square Test	
	often	occasionally	never	F	Sig.
Gender					
Male	18.0	73.3	8.7	3.531	0.171
Female	15.4	72.7	11.9		
Age					
Under 25	7.8	75.9	16.3		
26-35	21.4	72.4	6.2		
36-45	31.3	67.8	0.9	81.735	0.000***
46-55	27.1	66.7	6.2		
Above 55	40.0	60.0	0.0		

Notes: N, number of respondents, 3-never, *** Significant at 1% level respectively.

Wine is a social product and is consumed in various occasions. However, few Chinese consumers buy wine for home entertainment (LIU *et al.*, 2014). In China, wine consumption is mainly related to gift-giving, business banquets and special occasions such as the traditional holidays like the middle festival, and so on. Income and status-seeking are the main factors affecting wine consumption occasions (SUN *et al.*, 2009; RICHIE, 2007). In this research, a multi topic was designed to investigate the occasions on which consumers consume wine. Occasions on which wine is consumed vary (Table 3). The result showed that 50.8% respondents drank wine during holidays, 41.3% consumers drank wine daily at home, and 30.0% purchased wine as gifts. The results are consistent with those of previous studies (SUN *et al.*, 2009; JENSTER and CHENG, 2008; LIU and MURPHY, 2007).

The results of the chi-square analysis (Table 3) indicated that the occasions on which the respondents consumed wine were significantly different among consumers with various income levels. Respondents with an income of below 2000 (23.7%) mostly comprised those who consumed wine during holidays. This result is consistent with that of a previous research, which determined that consumers with low income tended to drink wine on special occasions such as holidays (Sun *et al.*, 2009). For business banquets, consumers whose income were CNY 7001- CNY 10000 (28.8%) seemed to have the money and opportunity to consume wine.

The survey determined that consumers most frequently purchased wine is supermarkets (61.5%), followed by wine stores (20.4%). The proportion of consumers who purchased wine online was relatively high (9.8%). The result is consistent with that of LIU *et al.*, (2014), who determined that Chinese wine consumers mostly purchased wine in supermarkets. This result is attributed to two reasons. First, supermarkets are convenient for consumers (LOCKSHIN *et al.*, 2012). Second, price discounts in supermarkets attract consumers who want to save (FLYNN *et al.*, 2010). The result also showed that online shopping for wine was still weak despite the prosperous electronic commerce in China. Many factors contribute to this result, such as the fragileness of wine bottles and false wine information.

Table 3. Influence of income on occasions on which wine is consumed.

Variables	Consumption occasion[a] (%) (N=976)					Chi-square Test	
	Business banquet	Holidays	As gifts	Daily	Others	F	Sig.
Income[b]							
Below 2000	14	117	60	85	8		
2001-3000	5	64	28	35	6		
3001-4000	6	84	52	54	2	56.835	0.000***
4001-5000	14	86	51	84	0		
5001-7000	11	75	54	70	1		
7001-10000	21	46	33	51	1		
Above10000	2	21	14	23	3		

Notes: [a] The question is multiple choice, [b] Average monthly income per capita. N, the total sample number of respondents, *** Significant at 1% level respectively.

3.3. Awareness and Preference in wine

3.3.1. Consumers' cognition on the origins of wine

The cognition of consumers on the origin of wine is presented in Fig. 2. The result showed that consumers considered Xinjiang Province and the Ningxia Hui Autonomous Region as the best origins of wine, and Beijing City, Tianjin City and Hebei Province were deemed as the worst wine origins in China. The northwest areas are known to be famous wine origins in China (MU and FENG, 2010), this is consistent with the survey results. However, 15% of the consumers deemed Hebei Province as the best wine origin. More than 10% of the respondents determined Gansu, Shandong and Jilin Provinces as the best and worst wine origins. These results indicate that consumers' limited knowledge or lack of professional knowledge about wine origins.

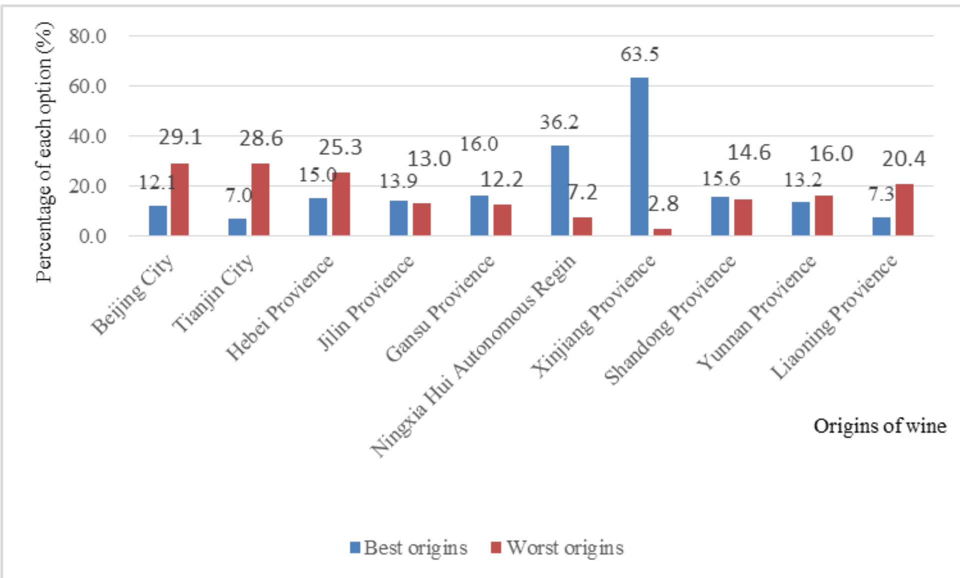

Figure 2. Consumers' cognition on wine origins in China.

3.4. Consumer awareness and preference in wine brands

Figure 3 shows consumers' familiarity with wine brands. Brand effect is very important to wine. Although the cognitive value of consumers in the existing brands of wine in China does not represent the actual value of the product, cognitive value is closely related to actual value. To some degree, cognitive value reflects the actual value of products (MU and FENG, 2010). Thus, 10 wine brands are considered in the current study and the respondents were requested to choose three brands that they were most familiar with and the three brands they were willing to buy. The results showed that Greatwall (71.6%), Changyu (70.8%), and Dybasty (35.7%) were the three highly cognitive wine brands for Chinese consumers. This result is related to brand history, advertising, and other factors (MU and FENG, 2010).

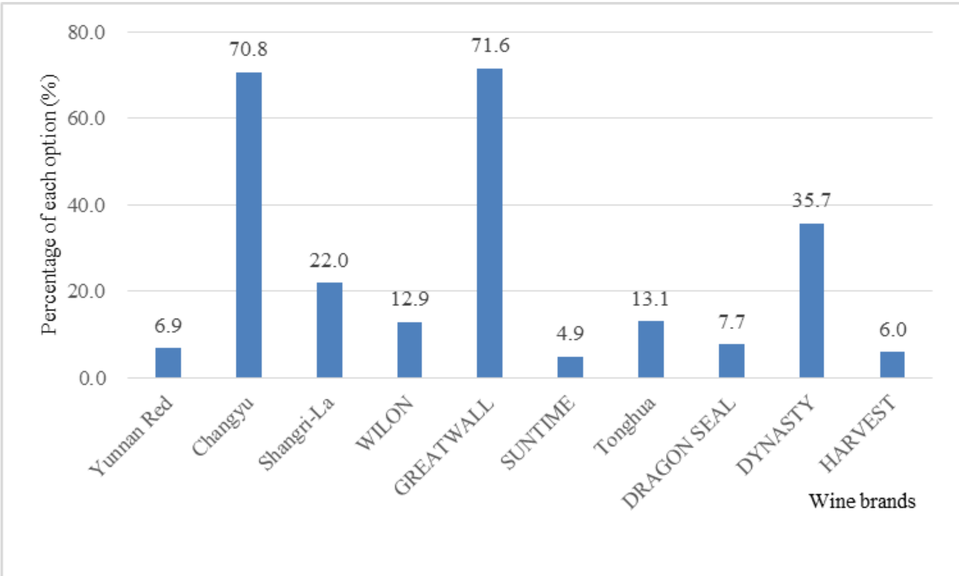

Figure 3. Consumers' familiarity with wine brands.

As shown in Fig. 4, in terms of buying, 39.8% of the respondents considered Changyu as their first choice, followed by Greatwall (26.3%). Forbes *et al*. (2014) verify that brand name, in the absence of other product information, influences consumer perception of quality and price, and purchase intentions, and that some categories of brand names perform better than others.

It is notable that foreign brands (21.1%) is also coming into consumers' eyes. These consumers consider foreign wine may be purer than that in China. The wine in China culture is underdeveloped, and consumers have limited knowledge about wine, including origins and brands. Most Chinese consumers are novice wine buyers, and tend to buy wines from the famous wine-producing regions they only knows. These consumers believe that wine imported from foreign countries is better than domestic wine (BRUWER, 2002), and they seek little information about other brands.

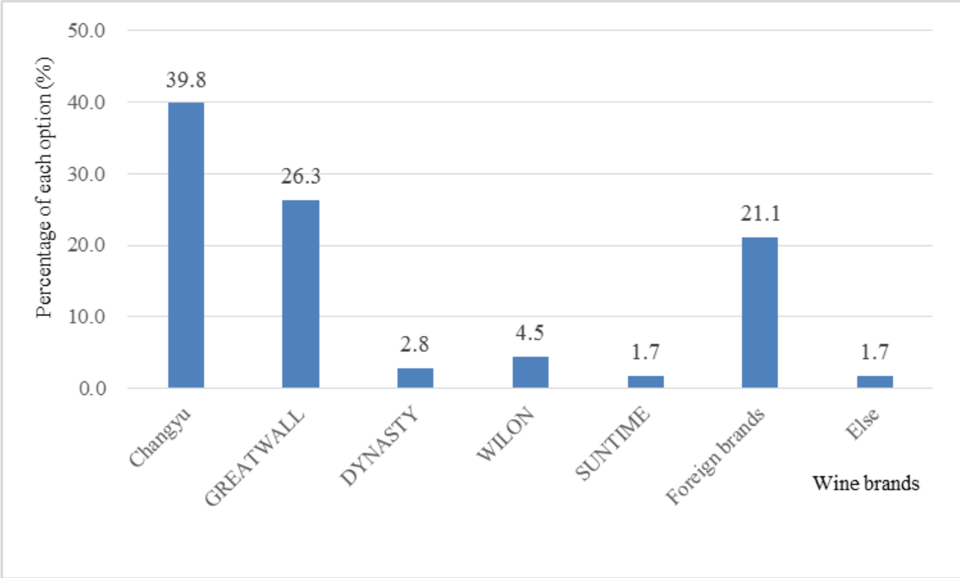

Figure 4. Consumers preferred wine brands when buying.

3.5. Consumers' recognition of wine attributes

Eight kinds of wine attributes, namely, price, quality, advertisements, recommendation of others, flavor, package, origins and productive years were selected in the current study. These scale items were based on the literature (HALL *et al.*, 2013; KING *et al.*, 2012; GOODMAN, 2009; GERAGHTY and TORRES, 2009). The respondents were asked to rank them according to importance. For the each attribute i (i =1, 2, ..,8, representing the 8 kinds of wine attributes), its final score S_i can be mathematically formulized as follows:

$$S_i = (\sum_{j=1}^{8} value_j * frequency_j)\ /n$$

Where $value_j$ is the importance for attribute i and ranges from 1 to 8 (8-the most important, 7- the second important, 6- the third important, 5- the fourth important, 4- the fifth important, 3- the sixth important, 2- the seventh important, 1- the eighth important), and $frequency_j$ is the times for $value_j$ occurence. n is the number of respondents.

The responses indicated that quality obtained the highest score of 5.78, followed by price (5.43), as shown in Fig. 5. The third highest score (5.05) pertained to taste, followed by source (2.72). The result indicated that consumers prioritized wine quality in purchasing wine. This result may indicate the need for the Chinese wine industry to improving wine quality.

3.6. Market segments

Before designing the questionnaire, the research staff surveyed two supermarkets and three wine shops in Beijing to acquire information on wine price. After analyzing the price data, the wine price ranges for daily drinking wine and wine for gifts were set in the questionnaire. However, the current study focused only on daily drinking of wine. In the analysis of market segmentation, 121 questionnaire were abandoned for missing the information about wine price for daily drinking. Fig. 6 shows that for daily drinking wine (bottle/750 ml), most consumers accepted the price range of CNY 75-CNY 100, and few samples were willing to purchase wine higher than CNY 175. Based on consumers' preference in wine price for daily drinking, Chinese wine consumers in the current study were categorized into 3 groups (Table 4).

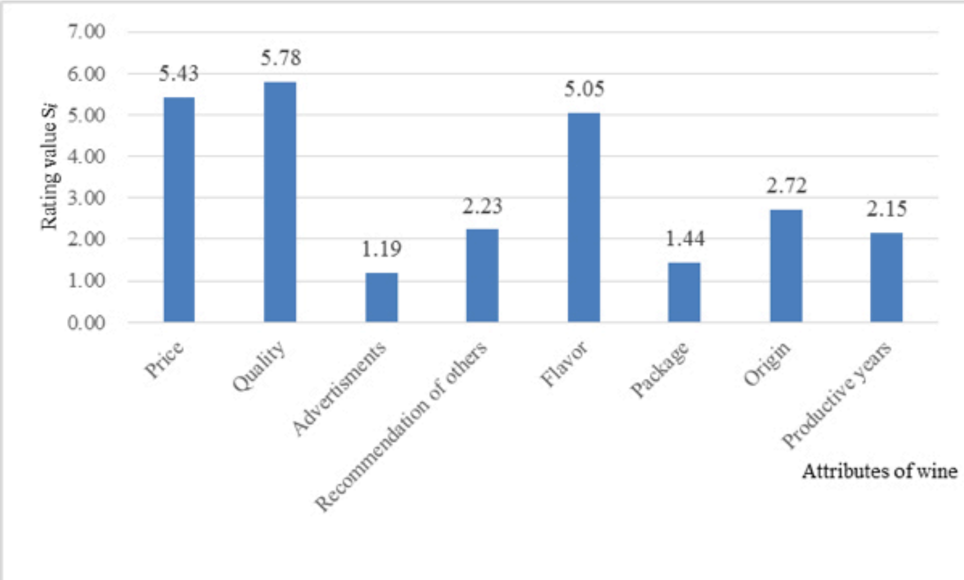

Figure 5. Consumers' recognition of wine attributes.
Notes: 8-most important, 7-second important, 6-third important, 5-fouth important, 4-fifth important, 3-sixth important, 2-seventh important, 1-eigth important.

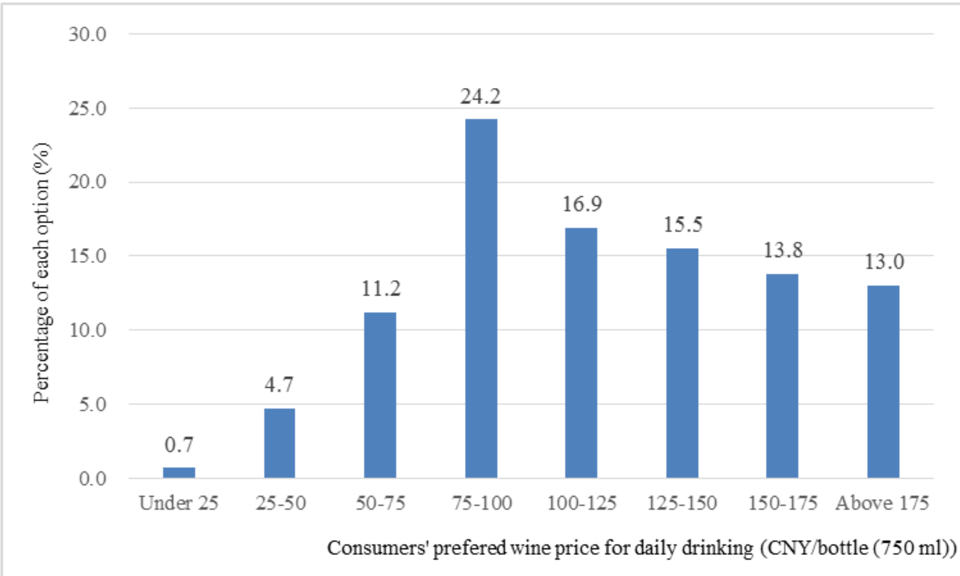

Figure 6. Consumers' acceptable price for wine for daily drinking.

These groups included low spenders, moderate spenders and high spenders. After the groups were identified, chi-square analysis was employed to identify the significant difference between the groups. The variables in the analyses were demographics, which include sex, age, income, level of education, and job category. The statistic results are shown in Table 5.

Table 4. Clustering Chinese wine consumers according to consumer preference in wine price for daily drinking

Segments	wine price for daily drinking
Low Spenders	Below CNY 75 (16.6%)
Moderate Spenders	Between CNY 75-100 (24.2%)
High Spenders	Above CNY 100 (59.2%)

Table 5. Demographic differences among price segments.

Variables	Groups (N=825)			Chi-square Test	
	Low	Moderate	High	F	Sig.
Gender					
Male	69	98	259	1.049	0.592
Female	68	102	229		
Age					
Under 25	70	87	211		
26-35	42	77	176	6.492	0.592
36-45	13	22	70		
46-55	9	11	27		
Above 55	3	3	6		
Income [a]					
Below 2000	41	39	98		
2001-3000	22	29	54		
3001-4000	29	47	69		
4001-5000	16	30	80	35.297	0.000***
5001-7000	18	24	85		
7001-10000	9	25	69		
Above 10000	2	6	35		
Educational background					
Junior high school and below	3	1	13		
Senior high school	23	29	29	28.469	0.000***
Junior college	30	32	79		
Undergraduate and above	81	138	369		
Job category					
Government official	5	12	39		
Staff in enterprises	52	49	126		
Liberal profession	18	32	147		
Farmers	1	1	2		
Education departments	4	50	26	114.014	0.000***
Students	39	48	110		
Unemployed/retired	6	5	10		
Else	12	3	10		

Notes: [a]Average monthly income per capita. N, the total sample number of respondents, *** Significant at 1% level respectively.

3.7. Demographic differences among the three segments

Chi-square Test was conducted to distinguish the significant consumer demographics, As Table 5 shows, three variables of income, educational background and job category are significant. Low spenders have a significantly lower income than the other two groups. Therefore, this may explain why more people prefer to middle-priced wine, after all, wine is also only a decoration in consumers' life. Wine is not like food, consumers are conscious about the price of wine. When wine price exceeds their psychological expectation, consumers are bound to reduce their wine consumption (MU and FENG, 2010). Income is an important predictor of wine involvement bacause consumers need to have the financial resources to support their interest in wine (BRUWER, 2013; Barber *et al*., 2006).
The group composed of undergraduate and above dominated among the three groups. The education standard of high spenders was higher than that of the two other groups. The number of undergraduate and above respondents accounted for 75.3% of the high spenders, 59.1% of the moderate spenders and 69.0% of the low spenders. According to LIU *et al*. (2014), consumers are frequently exposed to information about wine because of the rapid development of the wine market in China, thus resulting in more mature consumers. THATCH (2008) argues that the actual tasting of wine helps consumers develop an educated palate.
Job category did significantly differ among the three groups. High spenders were likely to be liberal professions. Consumers who worked at education departments were likely to be moderate spenders, and staffs in enterprises mainly comprised the low spender group. Occupational difference reflects the status of consumers in society somehow. Researchers have verified that wine is considered as a symbol of social status and sophistication (FAN, 2007; LIU and MURPHY, 2007).
No significant difference was observed among the three groups in terms of gender and age.
Previous research indicated that wine is not a luxury goods for consumers with improved standard of living, and that people can significantly benefit from wine (PETTIGREW and CHARTERS, 2010). Thus, people prefer wine to other drinks, such as beer and liquor (ZHOU *et al*., 2011).
Income, education background and job category may influence the three segments. To distinguish the actual factors that influence the three segments, a principal component analysis was conducted. Table 6 shows that the data passed the Kmo and Bartlett's test of sphericity. The eigenvalues of income and educational background were all above one, and the overall contribution rate of the three segments accounted for 82.829%. These findings indicate that income and educational background can be regarded as main factors affecting the preferred wine price of consumers for daily drinking.

Table 6. Principal component analysis of income, educational background and job category.

Component	Total	% of Variance	Cumulative (%)	KMO and Bartlett's test of sphericity F	Sig.
Income [a]	1.484	49.482	49.482		
Educational background	1.000	33.347	82.829	0.499	0.000***
Job category	0.515	17.171	100.000		

Notes: [a]Average monthly income per capita, ***Significant at 1% level respectively.

3.8. Behavior and recognition differences in the three segments

For behavior, preferred purchase places and favorite brands were examined. First, the places where the three segments purchased wine were observed. Five common wine selling places were selected in the current study, and the respondents were asked to choose the places they usually purchase wine. The results were listed in Table 7.

Table 7. Behavior and preferences differences among the three segments.

Variables	Groups (N=825)			Chi-square Test	
	Low	Moderate	High	F.	Sig.
Purchase places					
Supermarkets	94(68.6%)	135(67.5%)	278(57.0%)		
Exclusive Shop	21(15.3%)	37(18.5%)	110(22.5%)		
Online shopping	17(12.4%)	15(7.5%)	49(10.0%)	20.287	0.009***
Wine stores	1(0.7%)	11(5.5%)	39(8.0%)		
Else	4(2.9%)	2(1.0%)	12(2.5%)		
Favorite bands					
Changyu	53(38.7%)	76(38.0%)	194(39.8%)		
GREATWALL	41(29.9%)	70(35.0%)	112(23.0%)		
DYNASTY	6(4.4%)	3(1.5%)	9(1.8%)		
WILON	3(2.2%)	2(1.0%)	15(3.1%)	25.459	0.013**
SUNTIME	4(2.9%)	3(1.5%)	7(1.4%)		
Foreign brands	24(17.5%)	38(19.0%)	138(28.3%)		
Else	6(4.4%)	8(4.0%)	13(2.7%)		

Notes: N, the total sample number of respondents, *** , ** Significant at 1% and 5% level respectively.

Consumers most frequently purchase wine in supermarkets among the three groups. The main factors affecting consumers to select the place to purchase wine are convenience and price (FENG *et al*., 2012). As various supermarkets, which conveniently supply various and conveniently priced wines for consumers can be found in residential areas in China. Supermarkets are important in making wine accessible to the mainstream market (RICHIE, 2007).

Changyu, Greatwall, and foreign bands were preferred by the three segments. The most popular wine brand in China is Changyu, followed by Greatwall (Mu and Feng, 2010). And high spenders and low spenders also preferred Dynasty, Wilon, Sumtine and other brands.

The results of Chi-square Test indicated that consumer behavior and recognition of wine showed some statistical significantly difference. It was found that the number of high spenders was higher in other places where wine could be purchased, such as exclusive shops and wineries, than those of the other two groups. Low spenders were more likely to buy wine online shopping and other places, after all, products that sold online were cheaper than other places. For favorite brands, such as foreign brands, there was a great possibility that consumers were high spenders.

3.9. Knowledge and attitude differences among the three segments

To examine wine knowledge, consumers' cognition towards wine origins were analyzed. Table 8 shows that Xinjiang Province and the Ningxia Hui Autonomous Region were considered as the best wine origins by the three groups. High spenders considered Yunnan Province to be the best wine origin. To Hebei Province, which is one of the better wine origins, the number of low spenders is greater than those of the other two groups. Beijing City, Tianjin City and Hebei Province were considered as the worst wine origins in China by the three segments. Northwest areas are the best wine origins (MU and FENG, 2010), the survey result is consistent with this outcome. However, more than 5.0% of the respondents in each group considered Ganus, Shandong, and Jilin Provinces as the best and worst wine origins, thus indicating that consumers' limited knowledge about wine origins (Mu and Feng, 2010).

Table 8. Knowledge differences among the three segments.

	Groups (N=825)			Chi-square Test	
	Low	Moderate	High	F	Sig.
Best origins[a]					
Beijing City	19	26	55		
Tianjin City	12	10	36		
Hebei Province	27	26	71		
Jilin Province	21	30	64		
Gansu Province	16	39	77		
Ningxia	49	85	165	22.076	0.229
Xinjiang Province	82	128	324		
Shandong Province	24	24	81		
Yunnan Province	13	18	78		
Liaoning Province	11	14	35		
Worst origins[a]					
Beijing City	49	66	169		
Tianjin City	45	61	172		
Hebei Province	39	59	149		
Jilin Province	21	32	74		
Gansu Province	15	32	72	12.179	0.838
Ningxia	12	17	41		
Xinjiang Province	5	3	19		
Shandong Province	23	24	85		
Yunnan Province	25	40	91		
Liaoning Province	39	56	104		

Notes: N, the total sample number of respondents, [a] The question is multiple choice.

For deeper statistical analysis of consumers' origins knowledge above findings, it is found that consumers presented no significant difference in wine origin knowledge. This finding is not surprising. According to Liu *et al*. (2014) confirmed that a wine culture is lacking in China and many Chinese wine consumers were novice wine buyers. Chinese even have low awareness of grape varietals or food matching (Jenster and Cheng, 2008).

Consumers' recognition of wine attributes was examined to determine the differences in attitude of the three segments. Table 9 shows that significant difference exists among the respondents in terms of the importance of wine attribute.

Table 9. Attitude differences among the three segments.

Attributes	Groups (N=825)			Chi-square Test	
	Low	Moderate	High	F.	Sig.
Most important					
Price	64(46.7%)	68(34.0%)	134(27.5%)		
Quality	35(25.5%)	57(28.5%)	140(28.7%)		
Advertisement	3(2.2%)	8(4.0%)	13(2.7%)		
Recommended by friends	6(4.4%)	5(2.5%)	36(7.4%)		
Flavor	16(11.7%)	38(19.0%)	93(19.1%)		
Package	2(1.5%)	5(2.5%)	6(1.2%)	29.534	0.009***
Origins	6(4.4%)	12(6.0%)	42(8.6%)		
Productive year	5(3.6%)	7(3.5%)	24(4.9%)		
Second important					
Price	30(21.9%)	33(16.5%)	52(10.7%)		
Quality	47(34.3%)	68(34.0%)	159(32.7%)		
Advertisement	13(9.5%)	7(3.5%)	23(4.7%)		
Recommended by friends	7(5.1%)	22(11.0%)	46(9.5%)	30.602	0.006***
Flavor	30(21.9%)	38(19.0%)	118(24.3%)		
Package	4(2.9%)	11(5.5%)	26(5.3%)		
Origins	3(2.2%)	13(6.5%)	38(7.8%)		
Productive year	3(2.2%)	8(4.0%)	24(4.9%)		
Third important					
Price	19(13.9%)	36(18.0%)	78(16.0%)		
Quality	18(13.1%)	23(11.5%)	58(11.9%)		
Advertisement	12(8.8%)	14(7.0%)	23(4.7%)		
Recommended by friends	20(14.6%)	25(12.5%)	42(8.6%)		
Flavor	36(26.3%)	49(24.5%)	121(24.8%)	16.144	0.305
Package	9(6.6%)	15(7.5%)	42(8.6%)		
Origins	16(11.7%)	26(13.0%)	74(15.2%)		
Productive year	7(5.1%)	12(6.0%)	50(10.2%)		
Forth important					
Price	9(6.6%)	26(13.0%)	82(16.8%)		
Quality	6(4.4%)	14(7.0%)	33(6.8%)		
Advertisement	7(5.1%)	11(5.5%)	24(4.9%)	25.874	0.027**
Recommended by friends	23(16.8%)	21(10.5%)	39(8.0%)		
Flavor	14(10.2%)	22(11.0%)	41(8.4%)		
Package	21(15.3%)	18(9.0%)	44(9.0%)		
Origins	24(17.5%)	48(24.0%)	111(22.7%)		
Productive year	33(24.1%)	40(20.0%)	114(23.4%)		

Notes: N, the total sample number of respondents, ***, ** Significant at 1% and 5% level respectively.

Low spenders (46.7%) and moderate spenders (34.0%) considered price as the most important attribute, followed by quality, flavor, and origins. High spenders (28.7%) prioritized quality, followed by price, flavor, and source.
The results of the three groups were also inconsistent regarding the second most important wine attribute. High spenders focused on the intrinsic attributes (quality, flavor, and source).
The three segments did not significantly differ in the third most important attribute of wine, as flavor dominated all the three segments.
Low and high spenders chose productive year as forth most important attribute, and moderate spenders favored source. This segment result was similar to that of Liu *et al*. (2014), in which consumers were categorized to intrinsic and extrinsic cluster. The intrinsic cluster mainly sought information about wine quality, price, flavor, and brand name, which are considered as the intrinsic attributes of wine. The extrinsic cluster pertained to wine package, and foreign wine, which are regarded as the extrinsic attributes of wine. According to Liu *et al*. (2014), Chinese wine consumers with a high income were likely to belong to the intrinsic cluster, whereas consumers with a low income belonged to the extrinsic cluster. The previous analysis indicated that high spenders have a higher income than the other two groups. Therefore it was persuasive that why High Spenders prioritized quality and low spenders and moderate spenders considered price as the most important factor when purchase.
Attitude positively affects the identification of factors influencing the purchasing behaviors of consumers. The result indicates that quality, price, flavor and source are four most important wine attributes. Batt (2000) verifies that price is the most important factor affecting the purchasing behavior of consumers. Gunay and Baker (2011) demonstrate the importance of price, origin, and quality, and finds that quality and price are the most important factors affecting the purchase decision of consumers.

3.10. Gift-oriented acceptable price of wine difference among the three segments

The previous analysis showed that a relatively high number of consumers purchased wine for daily drinking and gifts, which were quite different in terms of motivation, preferred price and brand preference (PAN, 2012). Consumers are willing to pay a premium for wine as gifts because wine is a status symbol (Liu and Murphy, 2007). Thus, the accepted price of wine as gifts may differ. Therefore, this study separately analyzed consumers' price acceptability of wine for daily drinking and that of wine for gifts. Before designing the questionnaire, the research staff surveyed two supermarkets and three wine shops in Beijing to acquire information about wine price. The price data and wine price ranges were set for wine as gifts in the questionnaire. Table 10 shows that the acceptable prices for gift-oriented wine differed among the three segments.
High spenders tend to buy high priced wine. Respondents with an income of CNY 100-CNY 150(30.7%) dominated the low spenders. Respondents with an income of CNY 150-CNY 200(26.0%) comprised the largest proportion in the moderate spenders group, followed by those with an income of CNY 200-CNY 250(21.0%). The price of the overall tendency of high spenders was higher than that of the other two groups. A consumer who buys a bottle (750 ml) of wine with a price above CNY 250 may be to be a high spender (77.7%).
A Chi-square Test was conducted to identity statistical significant. The results verify that there is great significant difference in preferred price of wine as gifts. Income is an important predictor of wine involvement because consumers need to have the financial resources to support their choice (BARBER *et al*., 2006).

Table 10. Gift-oriented wine price preference difference among the three segments.

Variables	Groups (N=825)			Chi-square Test	
	Low	Moderate	High	F.	Sign.
Price for gift-oriented wine(CNY)					
Under 50	3(2.2%)	0(0.0%)	2(0.4%)		
50-100	23(16.8%)	5(2.5%)	1(0.2%)		
100-150	42(30.7%)	28(14.0%)	19(3.9%)		
150-200	30(21.9%)	52(26.0%)	63(12.9%)		
200-250	16(11.7%)	42(21.0%)	69(14.1%)		
250-300	3(2.2%)	17(8.5%)	55(11.3%)	262.813	0.000***
300-350	6(4.4%)	16(8.0%)	73(15.0%)		
350-400	4(2.9%)	18(9.0%)	45(9.2%)		
400-450	4(2.9%)	9(4.5%)	57(11.7%)		
Above 450	6(4.4%)	13(6.5%)	104(21.3%)		

Notes: N, the total sample number of respondents, ***Significant at 1% and 5% level respectively.

The previous analysis shows that income and education background significantly differ among the three segments. High spenders are likely to have a high income and educational level. Sending expensive wine is an act of politeness and respect (SUN *et al.*, 2009). Therefore, high spenders had sufficient money and were more likely to choose expensive wine than other types of spenders.

3.11. Profiles of the three consumers segments

Creating profiles of the three different price segments based on the significant variables identified in this research is required. Table 11 illustrates the major differences among the segments.

Table 11. Profiles of Chinese consumers by price.

Significant Variables	Groups		
	Low	Moderate	High
Demographics			
Income	Below 2000	3001-4000	5001-7000
Educational background	Undergraduate and above	Undergraduate and above	Undergraduate and above
Job category	Staff enterprises	Education department	Liberal profession
Behaviors			
Purchase places	supermarkets, exclusive shops, online shopping	supermarkets, exclusive shops, online shopping	Wine stores, supermarkets, exclusive shop, online shopping
Preferred brands	Changyu,GreatWall	Changyu, GreatWall	Changyu, foreign brands
Attitude to wine attributes	Price, quality, flavor, productive year	Price, quality, flavor, origins	Quality, price, flavor, productive year
Accepted price for gift-oriented wine	CNY 100-150	CNY 150-200	Above CNY 250

4. CONCLUSIONS

The frequency of wine consumption is affected by age. The 26-35 age group dominates the often purchase cluster, and under 25 age group is mostly in the purchase occasionally. These results show that more young are involved in wine consumption. Wine consumption occurs in many occasions, mainly at home, during holidays; most people also send wine as gifts. A significant difference is found between consumers' income and consumption occasion. Consumers with low income tend to consume wine on special occasions, such as the Chinese traditional holiday. And on occasions that require the consumption of wine such as business banquets, consumers whose income is CNY 7001-CNY 10000 (28.8%) seem to have much money and more chances to consume wine. Consumers are familiar with three brands, namely, Greatwall, Changyu, and Dynasty.

This research introduces the Chinese wine consumer price segments, namely, low spenders, moderate spenders, high spenders, and explores their differences in demographics, behaviors and preferences, and attitudes. High spenders have incomes higher than those of the other two groups, and they may be liberal professions. Conversely, lower spenders may work in enterprises and moderate spenders can be in the education department.

All three groups choose supermarket as their first wine purchase place, and a considerable number of high spenders purchase wine in wine stores. Excluding Changyu, the favorite wine brands of high spenders are foreign brands, and the favorite wine of the other two groups is Greatwall.

Knowledge about wine origins of the three segments is limited, and their cognition of the importance of wine attributes has a significant difference. High spenders look for quality, price, flavor, productive year; moderate spenders look for price, quality, flavor, source; and low spenders look for price, quality, flavor, and productive year. A significant difference is observed in the acceptable wine price for gift-oriented. Low Spenders prefer wines priced at CNY 100-CNY 150, and moderate spenders are inclined to buy wine priced at CNY 150-CNY 200. High spenders prefer wines with the highest price at above CNY 250 among the three segments.

However, the investigation was only conducted in Beijing because of the limitation of time and energy and this is also the limitation of this paper. In order to better understand Chinese wine consumer consumption characteristics, survey in more provinces of China is the focus of the authors in the near future.

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