

International comparative analysis for enterprise resource management on the developing wine market of China

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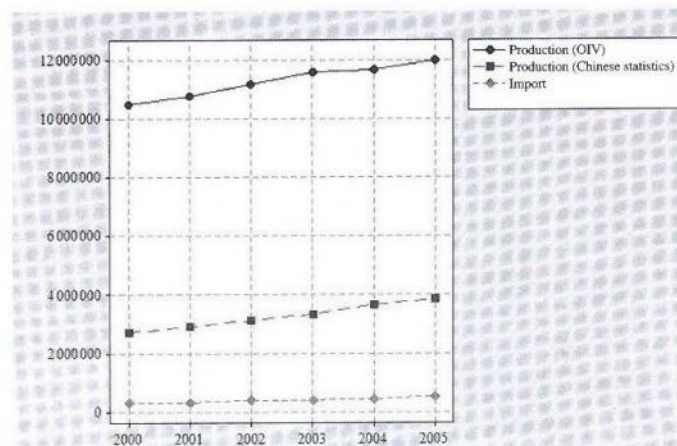
Summary: However grape cultivation has long tradition in China, modern grape wine and wine production has only started 10 years ago, parallel with the Chinese economic boom, in 1998. The rise of the social welfare caused a higher demand for luxury products, wine drinking came more popular, since on the one hand it is representing the standard of western style living for the higher society class, on the other hand Chinese people can live a more healthy life and spend money on wine drinking, instead of drinking traditional spirits. This tendency opened a wide market for Chinese and international grape producers and winemakers. During our research we have collected the rare, available market information on the Chinese wine market. With the use of this statistical data we will analyse the collected information and rough out the future trends and opportunities and threads for trade companies on the emerging wine market.

Key words: China, wine market, wine consumption

Introduction

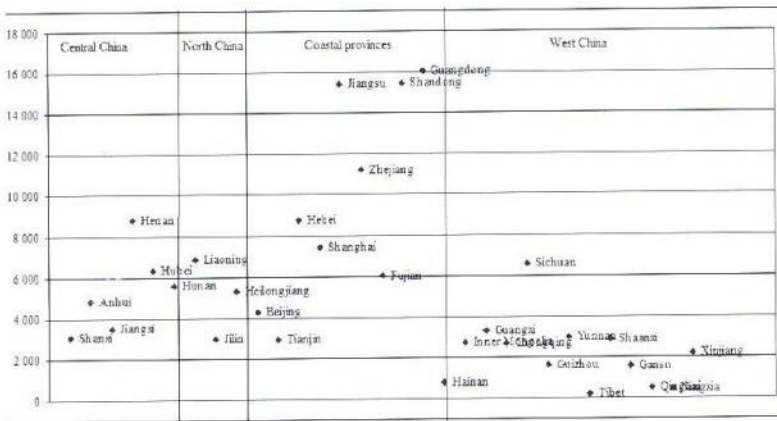
Deng Xiaoping has changed the life of People's Republic of China, as he declared the "Open Door Policy" (Gernet, 2000) in 1978. The so called, "one country-two system" combined the socialist, communist state with the export oriented and private enterprise supporting market system. This change resulted an enormous economical boom for the Chinese economy with a yearly 6–8 percent growth of GDP. Until 1998 income of farmers rise with about 1600 percent (however China was one of the poorest country of the world and farmers lived in poverty before 1978), China became an emerging market with a vital industry for the worlds economy. In the modern, industrial towns of the coastal area a new social class evolved, which lives on the same living standard, as the people of the modern world and has western style demands. Parallel with the rise of living standard, consumption of luxury products started to grow, so demand for western style wines almost doubled between 1998 and 2005. To lower the rate of alcoholism and it's caused social and health problems, government started officially urge people and the country's leaders to drink less grain-based spirits and more fruit wine (Kjellgren, 2004). It was an important factor in the view of government, that the increasing tendency of wine drinking opened a new market segment and a new agricultural sector. The size of total grape plantations started to grow, and hundreds of small wineries were established to supply the consumption. These tendencies created new working places and lowered the unemployment rate, mainly in the less developed, western, north western regions of China, where agriculture was always a traditional way of living for families.

Because the geographic and climatic conditions are perfect in these areas to produce western style wines, wine drinking was not an unknown habit in China, grape wine was firstly produced and consumed in the time of Han dynasty (BC. 206 – AD. 8) (McGovern et al., 2004). During the last centuries role of grape wine drinking was played down by the traditional Chinese spirits, wine producing technologies did not developed enough to produce an adequate quality and quantity wine to compete with western wines. The start of the wine boom caused a rising import for international wines, parallel with the development of domestic wine industry (Figure 1.). However the information in the table is disappointing (we will analyze later, why international, Organisation Internationale de la Vigne

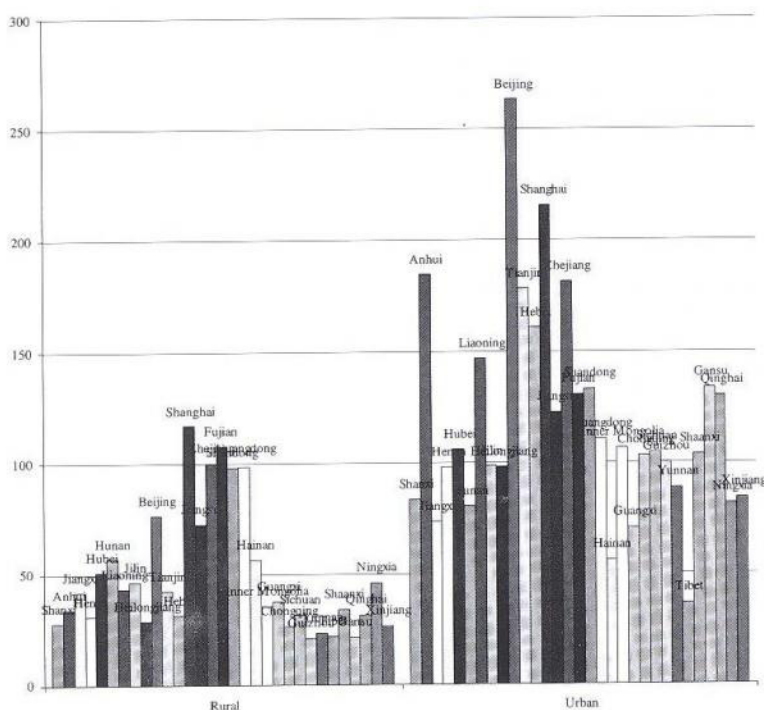


Source: OIV, China Sugar and Wine Yearbook

Figure 1. Graphs of the rising wine production and wine import in kilolitres (2000–2005)



Source: China Statistics Bureau
Figure 2. Total GDP per province in 100 million Yuan's (2004)



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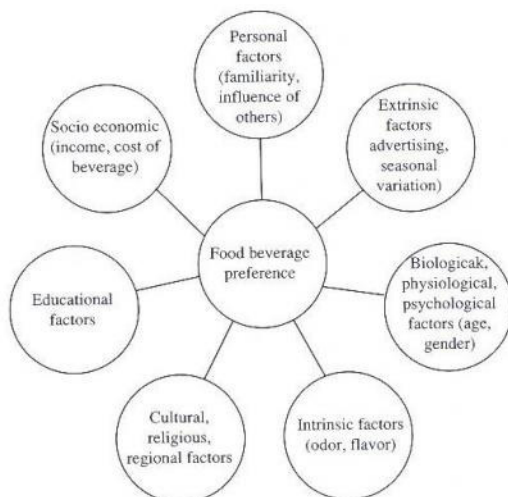


Figure 4. Expenditure on alcoholic drinks per person in Yuan (2004)

et du Vin (OIV), and Chinese statistics so different), the figures show the dynamic development of the production and consumption. To have a clear picture of the Chinese wine market, we need to analyze the composition of the GDP, also. As we wrote above, there are big differences between the different Chinese regions (Figure 2.) and there are relevant differences between the consumption of the urban and rural population in each area (Figure 3.). Compared the data of the tables we can see, that consumption is concentrated on the coastal area, mainly in the big industrial cities and special development zones, in which areas people drink more wine than in the less developed western and central provinces. It is important to know, that in a view of these facts, in economic terms we can not talk about "China" as one country. With the biggest population of the world, with the fourth largest territory and with the huge economic differences China needs to be treated as a unity of more provinces and cities. In the view of these facts the purpose of this research is to explore Chinese customer's wine purchasing behaviours and investigate their wine evaluations. We have used the model of evaluation of food selection patterns and preferences (Khan, 1981), which contains seven categories (Figure 4.). Goal of our research is to analyze the economical differences and based on the results, help market entering companies determine their destination markets, price and brand positioning level in China, and give normative ideas to manage their resources during their activity.

Materials and methods

During a research period between 2001 and 2008 we were collecting all the available data of this field. We have travelled more times to fairs in Shanghai, Beijing and Liaoning province, where we met the mayor of Shenyang city (Capital of Liaoning province), Hohhot city (Capital of Inner Mongolia), Tongliao town and Jinzhou town (towns in Liaoning and Inner Mongolia with remarkable agricultural activity). The collected primary information during these interviews were crucial for our research, namely usual problem, that Chinese statistical data was only available after years of the base years or has a distorted content. The wine-boom has started around 1998, so we had to collect information until 2008 to have sufficient amount of data for any analysis. For the calculations in the results and discussion section we have used the FAO STAT, OIV and China Sugar and Wine Yearbook, 2006 databases to create the needed graphs and base table for the correlation analysis. The calculations and graphs were created with the Minitab 14 Statistical Software.

Results

First of all we need to clear the difference between the international and Chinese statistics on *Figure 1*. On one side by the data of OIV (*Anonymous*, 2005) there was a production of 12 million kilolitres, on the other side by the Chinese statistics (*Rozelle et al.*, 2006) the production was only 3.5 million kilolitres, in 2005. With using other parameters of the Chinese wine production, compared with other wine producing countries (*Table 1*.) we can explain the difference. In the columns of the table we have put the official data of OIV about France, Hungary and China. In the first five rows we have the statistical data and in the second three rows we have the calculated data from the first five rows. In the case of France, we can see that the per capita consumption was low, than the total production, which difference was caused by the huge French export. The same two numbers in the case of Hungary are almost the same. In the "China (OIV)" column we have put a total grape plantation size of 485000 hectares which contains the area of wine and table grape plantations together. If we see the calculated data in the "China (OIV)" column, it would prove the OIV official statistics about production (very high yields, low efficiency) and consumption (almost the same as the production), the only problem was, that a significant part of the plantations are used for producing table grape, and will not be used for making wine. So, OIV estimations for the total wine production are based on the statistics of the total plantation area, which calculation method has distorted the result. Nevertheless in the high developed cities of the coastal area, the consumption is higher than 1 litre/capita/year, the country's average is lower than this, Chinese officials estimate it around 0.5 litre/capita (*Jin*, 2004). In the fourth column we have made calculations to prove our speculations. With the use of OIV database, we know that the total grape production was 6520.90 thousand tons (X), total table grape production was 3695.40 thousand tons and by the FAO STAT database total plantation area was 411.30 thousand hectares (Y), in 2004. The difference of the total grape production and total table grape production results a wine grape production with 2825.5 thousand tons (Z). We can use this information to calculate the real size of wine grape plantation area:

$$(Z/X)*Y=178215$$

The real size of wine grape plantations was 178215 hectares, which data used for calculations in the table shows us a more realistic situation than the OIV estimation. These calculations show that Chinese wine industry is still in his infancy, efficiency is very low, grape production is quantity oriented (because of the weight based contracts between farmers and wineries). We can say,

Table 1. International comparative table of wine production statistics (2005)

Country		France (OIV)	Hungary (OIV)	China (OIV)	Control data
A.	Total plantations (ha)	894000	83000	485000	178215*
B.	Total grape production (1000 q)	67902	5364	65209	28255*
C.	Total wine production (1000 kilolitres)	52105	3567	12000	3850
D.	Consumption per capita (litre/pers./year)	55.10	34.70	1.00	
E.	Population	60 million	10 million	1.3 billion	
Calculations					
B/A	Grape prod. per hectare (q)	75.95	64.63	134.45	158.54
C/B	1 kg grape-wine rate (l)	0.77	0.66	0.18	0.14
C/E	Wine prod. per capita (litre/pers./year)	86.84	35.67	1.00	0.32

* calculated data

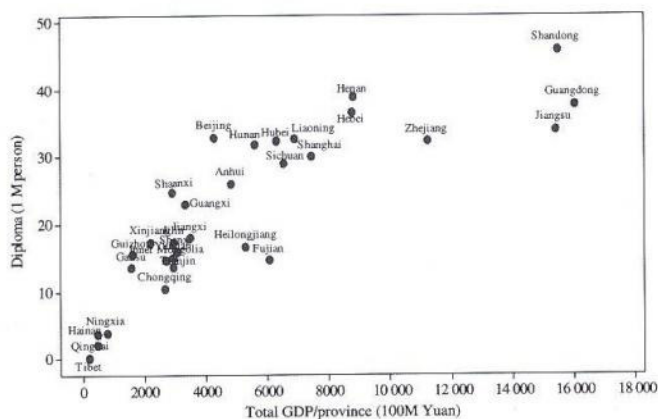
Table 2. Consumption of alcoholic drinks per province and location (2004)

Province	Expenditure for alcoholic drinks (yuan/year/capita)		Rate U/R	Rural	Urban*
	Rural	Urban		consumption (litre/p)	
Beijing	76.18	263.68	3.46	0.29	0.88
Tianjin	42.23	178.31	4.22	0.21	0.63
Hebei	31.33	160.70	5.13	0.15	0.46
Shanxi	28.17	83.39	2.96	0.05	0.16
Inner Mongolia	35.24	106.17	3.01	0.23	0.69
Liaoning	43.42	146.89	3.38	0.21	0.62
Jilin	46.31	98.55	2.13	0.27	0.82
Heilongjiang	28.78	98.08	3.41	0.30	0.89
Shanghai	116.94	215.55	1.84	0.32	0.97
Jiangsu	72.47	122.43	1.69	0.18	0.55
Zhejiang	100.05	181.14	1.81	0.47	1.42
Anhui	33.88	184.73	5.45	0.22	0.65
Fujian	107.32	130.26	1.21	0.33	1.00
Jiangxi	42.10	73.57	1.75	0.15	0.45
Shandong	97.85	132.74	1.36	0.23	0.69
Henan	30.91	97.67	3.16	0.09	0.27
Hubei	50.85	105.88	2.08	0.16	0.49
Hunan	57.05	80.40	1.41	0.08	0.25
Guangdong	98.44	110.17	1.12	0.06	0.19
Guangxi	37.65	70.48	1.87	0.11	0.34
Hainan	56.59	55.99	0.99	0.09	0.26
Chongqing	26.38	102.74	3.89	0.17	0.51
Sichuan	31.54	104.19	3.30	0.14	0.42
Guizhou	21.07	99.78	4.74	0.11	0.33
Yunnan	23.42	88.60	3.78	0.10	0.30
Tibet	21.72	362.82	16.70	0.02	0.07
Shaanxi	34.04	103.49	3.04	0.05	0.15
Gansu	21.64	133.41	6.16	0.07	0.22
Qinghai	31.48	129.93	4.13	0.06	0.18
Ningxia	46.05	81.38	1.77	0.04	0.13
Xinjiang	26.28	83.87	3.19	0.02	0.06
Average:				0.3236	

Source: www.allcountries.org.

* calculated data

because of the low import rate (<10%), the per capita wine consumption equals the per capita wine production, which was around 0.32 litre per person per year (2% of the total alcohol consumption per person), instead of beer consumption (20 litre per capita), in 2005. We can specify



Source: China Statistics Bureau

Figure 5. High educated persons with diploma per province (2004)

our calculations and prove the calculated per capita consumption, if we calculate the weighted average for the consumption by rural and urban areas for each province (Table 2.). Using the data of Figure 3 we have calculated the rate of urban-rural expenditure for alcoholic drinks per province. In the statistics we have found data for the rural consumption per person in litres, which number we multiplied with the rate above. At the end we have received the data for urban consumption. Calculating an average for the urban and rural consumption we have received the same 0,32 litre/person result, so we proved our results above. The data show, that the average consumption in rural areas is 0,16 litre, in urban areas 0,49 litre and there are the special developed regions (Beijing, Shanghai, Fujian etc.) where the consumption is around and above 1 litre.

The cause of the difference is the price difference between the products, namely a bottle of beer costs ca. 5 Yuan, a domestic wine ca. 40 Yuan and an imported wine ca. 100 Yuan. If we pair the above numbers to the data of Table 2., we can see, that urban areas and developed provinces has a significant vantage in contrast with rural areas and less developed provinces. This statement was confirmed by the education information of the different provinces (Figure 5.), which shows, that developed provinces has an output of significant more persons with university diploma, than the others. If we put all the above received information in the model of evaluation of food selection patterns and preferences, we can make the following statements:

1. Personal factors: wine drinking is more and more popular in China, customers are open to drink wine and receive information about wines, wine culture. Chinese customers usually do not drink wine at home, only on social events with others. They rarely buy wine for themselves, usually buy wine as gift or present.
2. Extrinsic factors: peak season for wine business in China was in January before the biggest Chinese family event, the Chinese New Years Eve. Decision making usually based on the price and design or image. Imported wines and expensive wines are advertised in TV-s and magazines, for the wine lovers there are a few special wine magazines in China.

3. Biological factors: wine drinking is more popular between young people, mostly between age 30–45
4. Socio economic factors: as shown on Figure 2. and Figure 3. wine drinking is more popular in urban areas of the coastal provinces. Compare the average expenditures for beverages and the average price of alcoholic drinks, we can state that in urban areas the cheaper, local and domestic wines, while in urban areas more expensive, well known Chinese brands and import wines are favourable.
5. Educational factors: data of Figure 5. proves, that in more developed and urban areas education level is much higher than in the other parts of the country. Educational factors are in strong connection with socio economic factors, we can say, customers with higher education have more money to spend on wines and have more channels to get information about actual wine fashion
6. Cultural, religious, regional factors: educational factors and socioeconomic factors strongly influence this parameters, and it has a parallel connections with the others above
7. Intrinsic factors: Since Chinese wine drinkers do not know much about wine, they try to harmonize wine drinking with their eating habits. So, average Chinese customer was looking for sweet, semi-sweet wines and red wine are much more favourable than white wines. Local and domestic wines satisfy these requirements, while imported wines are positioned for higher educated and richer customers, with their dry taste and western standards.

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