Czech University of Life Sciences Prague

Faculty of Economics and Management

Department of Economics

Bachelor Thesis

Economic Analysis of Wine Industry in Kazakhstan

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CZECH UNIVERSITY OF LIFE SCIENCES PRAGUE

Faculty of Economics and Management

BACHELOR THESIS ASSIGNMENT

Adiya Ipmagambetova

Business Administration

Thesis title

Economic Analysis of Wine Industry in Kazakhstan

Objectives of thesis

The main goal of the thesis is to estimate potential of development of Wine industry in Kazakhstan, define and evaluate its economical situation in this industry. Sub-goals are to consider the global wine-market and try to evaluate problems of entering this market for the new country. Compare the outlays which forms the costs in Kazakhstan with the world's leader-producers.

Methodology

For theoretical part methods such as extraction of the basic explanations, synthesis, induction and deduction are used.

For practical part methods of economical analysis and financial are employed. Theese methods include comparing and grouping, cost accounting, profitability indicators.

Also basic statistical methods such as average, minimum, median are employed.

The proposed extent of the thesis

40 pages

Keywords

wine, production, vinification, aspect, cost

Recommended information sources

Brown, Kevin G, 2010, The wine industry. Perth, W.A. : Curtin University of Technology, School of Business Law and Taxation.

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Mencarelli, F. and Tonutti, P. (n.d.). Sweet, reinforced, and fortified wines.

Expected date of thesis defence

2016/17 SS – FEM

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Declaration

I declare that I have worked on my bachelor thesis titled "Economic Analysis of Wine Industry in Kazakhstan" by myself and I have used only the sources mentioned at the end of the thesis. As the author of the bachelor thesis, I declare that the thesis does not break copyrights of any their person.

In Prague on

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Adiya Ipmagambetova

Acknowledgement

First of all, I would like to thank my parents who gave me the opportunity to study abroad, who supported me during the whole study and especially during my work on thesis. I am very thankful to Ing. Petr Prochazka, Msc, Ph., who supported the topic and consulted during writing the thesis. I am grateful to all professors for their teaching.

Ekonomická analýza vinařství v Kazachstánu

Souhrn

Tato práce představuje vinařství z ekonomického hlediska a odhaduje ekonomický potenciál své expanzi v nové zemi. Tento odhad byl vyroben pro Kazachstán.

V současné době na trhu s vínem byla analyzována a budoucnost tohoto odvětví se předpokládalo, že v teoretické části. Pozadí trhu s dnešní vína na světě byl ve srovnání se stavem tohoto trhu v Kazachstánu. Na základě výsledků této komparaci bylo prokázáno, místo Kazachstánu. Pro větší vůlí tam bylo provedeno mini-průzkum, který pomohl k ilustraci toho, jak raw je zde vinařství. Výsledky Všechny průzkumu byly shromážděny, popsány a analyzovány v praktické části. Závěr a předpovědi bylo provedeno na základě výsledků analýzy moderní situace.

Klíčová slova: Víno, průmysl, cena, spotřeba, vinice, náklady, výroba, obchod, zisk, Kazachstán, vinařství

Economic Analysis of Wine Industry in Kazakhstan

Summary

This thesis introduces the Wine industry from the economical point of view and estimates the economical potential of its expanding in the new country. This estimation was made for the Kazakhstan.

Nowadays market of wine was analysed and the future of this industry was forecasted in the theoretical part. The background of todays wine market in the world was compared with the state of this market in Kazakhstan. On the results of this comparation, it was shown the place of Kazakhstan. For more clearance there was conducted a mini-survey that helped to illustrate how raw is the wine industry there. All survey's results was collected, described and analysed in the practical part. The conclusion and predictions was made according to the results of analysis of modern situation.

Keywords: Wine, industry, price, consumption, vineyard, cost, production, trade, profit, Kazakhstan, winemaking

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List of abbreviations:

kha: thousands of hectares

mha: millions of hectares

khl: thousands of hectolitres

mhl: millions of hectolitres

bn: billion

m: millions

EUR: euros

KZT: tenge

1 Introduction

Wine industry is an old branch that is still getting more popular from year to year. It is known that wine is a proud, interesting and rather complex beverage. As the average income rises more people tend to buy more wine, so the supply and demand are also increase. Consumers want to buy better wine for the lower price. Nowadays, there is a such wide range of wines from all over the world in the market of wines. But most of buyers prefer old well-known European wine or younger but also certified wines from the "New World" producers. So there arose a question: is it possible that the new country will enter the market with the long-term "fixed"orders?

In this bachelor thesis wine industry was considered from it's economical side. There not only nowadays world economic situation of Wine was described, but also the previous years has been analyzed and future of the industry was forecasted. Also there the influence of the wine origin on its renown among consumers was researched. This dependence has been explained on the example of Kazakhstan.

Kazakhstan is a big country in Central Asia, situated in the temperate zone. Kazakhstan is rather young republic and its economy is only on the way of becoming stable and strong, so there are a lot of industries which can be developed. Nowadays, country really depends on the import of many types of products. The world already knows Kazakhstan as the agricultural country, the country mainly exports cereal crops. The territory is congenial for the development of agro-industry, including vineyard's growing. But still Kazakhstan wine cannot be called "popular" even though the quality of the local wine fits in with the European standards. In the practical part of thesis there was estimated potential of wine industry evolving in Kazakhstan, the profitability of Kazakh wineries and problems of the industry has been described. To evaluate problems of this work there was conducted a mini survey and based on the result of it the situation with the Kazakh wine was shown. Besides there was a calculation of the profit of wine performed and compared with the profit from another agriculture which has bigger ares of growing in Kazakhstan. The conclusion was based on the resluts of analysis of today's wine market and results of the research.

2 Objectives and Methodology

Further on, there are listed objectives and methodology used in this thesis.

2.1 Objectives

Objectives of the thesis are to show the economical aspects of the wine industry and to become more familiar with the general economical values of the industry of wine making. Besides the origin of wine and the leaders of production all over the world was discovered. The situation of the nowadays wine has been analyzed not as the product made via chemical processes, but as the economical good.

The research question of this thesis is to identify the state of Kazakh wine industry and to estimate potential of the local wine developing according to the nowadays situation. Also one of the main goals is to predict the future of the industry in the whole world and in Kazakhstan. There also was estimated the ability of Kazakhstan to take a place in the world wine market.

2.2 Methodology

In order to fulfill the objectives of this work and to illustrate evidences that confirm the research question there was conducted a mini survey of 30 respondents. The respondents were randomly choosen and they answered qusetions that shows whether they heard about Kazakhstan prduced wine.

When the data was collected, the answers have been analysed and based on the background information the conclusion was made.

Another model that was used to fulfill the objectives is calculation of profitability of the agriculture in Kazakhstan.

All calculations, tables, statistical test were created in Microsoft EXCEL 2013 program. All calculations was made in EUR or calculated in Kazakhstan‘s currency- tenge and then converted into EUR according to the actual exchange rate (1 EUR= 337,0 KZT).

Theoretical part was conducted by using method of synthesis, induction, deduction, extraction from study resources related to the topic of the thesis and own representation of it. Chosen resources were carefully studied to provide a foundation and support for the theoretical background of reserach question.

3 Theoretical part

3.1 What is wine?

Grape wine is a drink that produced via the alcoholic fermentation of grape juice or pulp (Clark, 1992). Wine production has been known since ancient times. It was known in different countries cultures for a long time and most of them has beautiful legends about it’s creation. There is a Persian legend which tells us about King Jamsheed who loved the grape juice but one day a servant brought him foxed juice. The King was in a ranging temper, so he injoined to hide this juice. One day wife of the king had a terrible headache, it made her desperately despondent, so she wished to commit a suicide. She went to the king’s warehouse, took a jar marked “poison” containing that spoiled juice and outdrunk it. Surprisingly after drinking the “poison”, she found herself healthy and inspired. She took her discovery to the king. Soon the “magical beverage” was known in the whole kingdom as “the royal medicine” (Winery Villavinifera, n.d.).

Wine is a unique commodity. Its production predates recorded history, as does the discovery of the healthful benefits of wine, now largely attributed to the antimicrobial activity of ethanol (Lucia, 1963). Throughout antiquity, the conversion of grapes into wine was considered a gift from Gods and the best wines have been reserved for the elite of society. The image of wine as a beverage of the affluent persists even today. Wine was also one of the first commodities to be bartered by early civilizations engaged in international trade (Bisson et al.,2002). Then, as now, the most successful wine producers were those who grasped market forces of supply and demand, and whose products met the prevailing definition of quality (Bisson et al., 2002).

Today, wine is an integral component of the culture of many countries, a form of entertainment in others, and a libation of choice for advocates of its health benefits.
In a scientific language: natural wine is a drink created as the result of the fermentation of pure grape, fruit, berry or just vegetable juice in general without adding any extraneous, not contained in the juice substances (Postman, 2011).

Wine contains organic acids, mineral salts (mainly potassium), phosphorus, nitrogenous, pectin, and sugar (Muir, 1972). The wine has antibacterial characteristics. For example; cholera and typhoid bacteria do not survive and die after 5-30 minutes in wine environment, but when the wine is mixed with water – they die a bit slower. Summarizing this doctors believe that it is very helpful to drink dry table wine mixed with water not only to quench thirst, but also as a preventive measure (Montignac, n.a).

As Gaiter and Brecher mentioned it is distinguished two main colours of wine: white and red. White wine is prepared from white or pink fruits and berries. They have a variety of shades ranging from chartreuse, flaxen or golden yellow to dark amber or pink to light red. Red wine is obtained from the fruit of red. They have a ruby red colour, sometimes with a violet tinge. (Gaiter and Brecher).

Just like any food, the wine is evaluated primarily on its taste and aromatic properties. Especial sensory analysis, which is performing for wine evaluating, is called tasting (degustation).

In most of cases, the perception of wine flavor depends on the eaten food before the tasting (Bisson et al., 2002). According to Eyres After desserts Wine seems more empty and tasteless. After sharp - much better, nicer and taste better than it actually is. Each sample is recommended to drink water and snack food, beverage corresponding to the subject: eg biscuits fruit, but in any case, not lemons, oranges, tangerines, as their strong flavor can distort the taste of wine tasting wine.

Moderate consumption of wine complements the human diet, improves health and increases the body's resistance against some diseases. (Eyres, 1991).

The necessity of wine characteristic study and wine market today is questionless, wine is one of the most important component of the world economy: alcoholic sector in some countries up to 70% of the total. In the next paragraphs, the value of wine industry in the world economy will be described (Bisson et al., 2002).

3.2 The economics of wine production

When wine is viewed as an economic good it is considered that wine composed of a bundle of sensory characteristics. These characteristics depend upon the geography of grape grown land, kind of grape, the vinification techniques applied to the process, and the way produced wine will be stored and transported. More than 15,000 wine products compose a class of differentiated goods that differ in terms of their characteristics and quality (Waterhouse et al., 2002).

3.2.1 Climate, terroir, and wine

During long time one of the most important factors in success of all agriculture systems was the climate. Today it also influences whether a crop — including winegrapes — is suitable to a given region, largely controls crop productivity and quality, and ultimately drives economic sustainability (Waterhouse et al., 2002).

Today, wine is produced all over the world, from Australia to North Europe, Latin America to South Africa, and through the whole American continent. Although decisions about what crops to grow commercially are largely driven by regional history and tradition, they are also influenced by regional and international economics. However, both tradition and economics have ultimately been driven by the ability to grow the crops sustainably within a given climate (Earthmagazine.org, 2017).

Unlike other types of crops, grapes do not really need to be grown in certain climates and soils. Producers believe that environmental stress is able to improve the sensory characteristics of grapes and wine, so this causing wine to become better, but this theory is still scientifically unproven. But according to Ashenfelter a warm growing season, a dry harvest, and plenty of rainfall in the winter preceding the growing season create ideal conditions for high-quality wine as it is described in his model in the Bordeaux region (Ashenfelter). The so-called Bordeaux equation shows the positive effect of warming on Bordeaux[1] wine prices, a result that has been confirmed for several northern European wine-growing regions. The Ashenfelter equation quantifies the relationship between wine prices and weather. In addition, and that equation has become increasingly important, it can assess the effect of global warming on wine prices (and thus on land values) (Ashenfelter, 2008).

Another also influencing factor is terrior. It can be defined as a term that attempts to capture all of the myriad environmental and cultural influences in growing grapes and making wine. (Prévost et al.) Terroir is derived from the Latin “terre” or “territoire,” and its first modern definition appears as “the environmental conditions, especially soil and climate, in which grapes are grown and that give a wine its unique flavor and aroma.” The French concept of terroir states that the composition of grapes produced in a specific

[1] The Bordeaux model is a cross-sectional model with the (natural logarithm of) price index of a Bordeaux wine portfolio as dependent variable and the wine’s age and various weather data as independent variables.

growing region will be influenced by the local environment, which will carry through to the wines of the area (Laville, 1990). Laville also said that this French concept also includes as an element minimal intervention in modification of the growing environment so that the terroir may be evident. Thus, in contrast to other agricultural commodities, wine is marketed by the geographical location of production, and quality is associated with minimal vineyard inputs or manipulation. (Laville, 1990).

3.2.2 Geography of vineyards

Information and data below was taken from Organisation Internationale de la Vigne et du Vin reports (or simply *International Organisation of Vine and Wine)* "STATE OF THE VITIVINICULTURE WORLD MARKET" paraphrased, explained and interpreted by author of the thesis.

In the dictionary vineyard is defined as a plantation of grapevines, especially one producing grapes for winemaking (Dictionary.com, 2017)

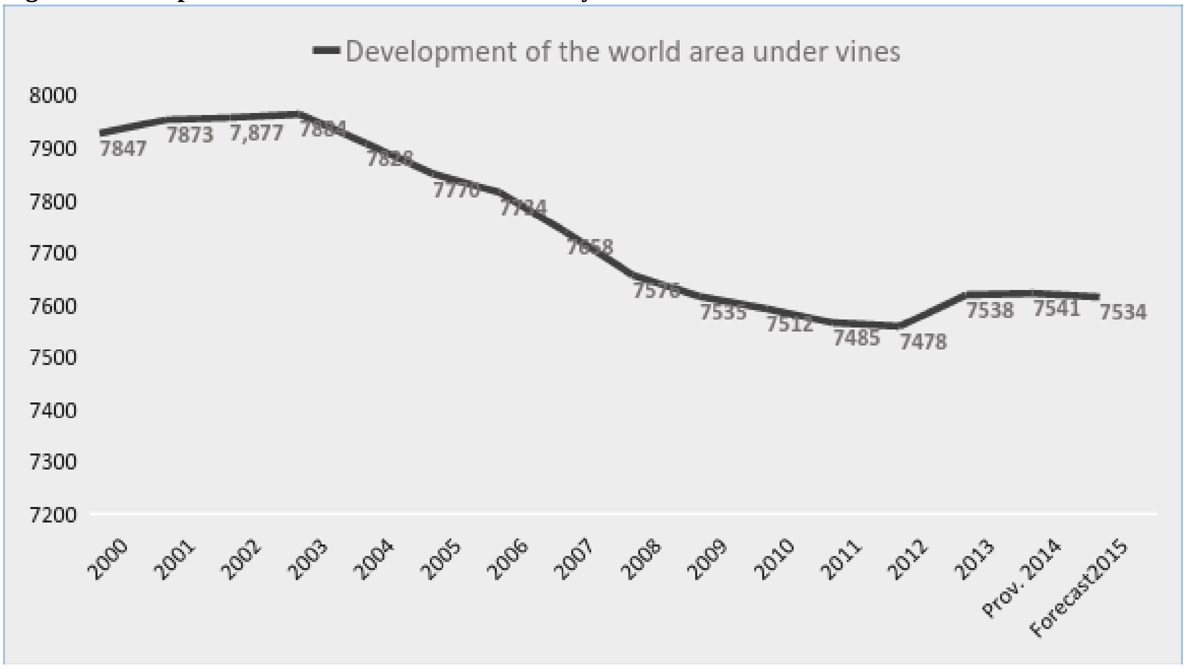
Wine plays an important role in international trade. Despite the fact that the area of vineyards in the world tends to decrease (10 million hectares in 1970, 8.2 million in 1992 and less than 8 million. In 2005), the annual production of wine is kept stable growing (Levitas, 2002).

The wine is drunk on every continent, from the North to the South Pole: polar explorers and scientific expeditions participants include its rations to promote health. However, the area in which the grapes are grown, are insignificant on a global scale (Levitas, 2002).

It was predicted that the world's total vines area in 2015 would be 7534 thousands of hectares, which is less than in 2014 on 7 kha (0,01%). This area value also includes area planted with vines, including that not yet in production or not yet harvested. After decreasing in 2004, declining of the vineyards area has stopped almost 10 years later.

The average vineyards area fro the 21st century is 7675,8 thousands of hectares.

Figure 1 Development of the world area under vineyards



Source: *International Organisation of Vine and Wine* “STATE OF THE VITIVINICULTURE WORLD MARKET”. Own representation

- **In Europe**

As it is shown in the table “Areas under vines in European vineyards” below the level of decline in the European Union’s vineyards has significantly retarded as the result of the EU programme (2011/2012 harvest). The program was developed to regulate wine production potential in Europe. (Council Regulation (EC) No. 479/2008 of 29 April 2008 on the common organisation of the market in wine). It is forecasted that EU vineyards should stand at 3362 kha, a reduction of 26 kha between 2014 and 2015.

Among other European countries, where there is an old tradition of winemaking. Greece and Cyprus should be noted, they are considered to be the birthplace of wine. Other countries are Hungary, Romania, which once ranked second in terms of wine production in Eastern Europe, second only to the Soviet Union, Bulgaria, where significant investments are made in the wine development in recent years, as well as Ukraine, Moldova. Armenia and Georgia.

Also, manufacturers of wine, but in a much smaller scale are Poland, the Czech Republic, Slovakia, Yugoslavia, Austria, Switzerland, Malta, the Netherlands, Liechtenstein and England.

England at the same time - the most northern country where the wine is produced. However, for the most part they are engaged in individual farms (their area is about 1 thousand. Ha) (Levitas, 2002).

Table 1The areas under vines in European vineyards in thousands of hectares (kha)

Country	2012	2013	2014	2015	2016 forecast	2015/2016 variation
Spain	1017	1021	1022	1021	1023,5	2,5
France	792	793	791	786	785,5	-0,5
Italy	713	705	690	682	670,5	-11,5
Portugal	233	229	224	217	212,5	-4,5
Romania	192	192	192	192	192	0
Greece	110	110	110	107	107	0
Germany	102	102	102	102	102	0
Hungary	52	56	58	56	59	3
Bulgaria	67	65	64	64	62,5	-1,5
Russia	62	62	63	63	63,5	0,5
Austria	44	44	44	44	44	0
Switzerland	15	15	15	15	15	0
Other European countries	694	692	674	676	666	-10
Continental total	4093	4086	4050	4024	4002,5	-21,5
Including the EU- 28 total	3419	3410	3388	3362	3346,5	-15,5

Source: *International Organisation of Vine and Wine* "STATE OF THE VITIVINICULTURE WORLD MARKET". Own representation.

According to the data from Table 1 there isn't any raise in the countries with the biggest area of vineyards, also there is a significant decay. The areas under vines in Italy and France expected to reduce by 11,5 and 0,5 kha in to 2016 comparing to the previous year. The Greek vineyards will stay nearly the same as it has decreased by around 3% between 2014 and 2015. But the leader in vineyards area Spain will be stabilised since it's declining between 2008 and 2011, there was a decline in 2015,but in 2016 it is predicted to +2,5 kha.

Regions:

Europe is known around the world by its wine-making regions which are very important and famous since ancient times. The main wine-making regions of France are Languedoc, Provence, Charente, Bordeaux, Loire Valley, Champagne, Alsace. French specialists divide wine quality into four categories:

- wine of controlled origin denominations– AOC (Appellation d'origine controlee);
- V.D.Q. (Vin Delimite de Qualites Superieure);
- local wines;
- table wines. (Kuptsov, 2002)

Very high quality;
Quality;
Local;
Table.

France is also a home country to sparkling wines and brandies. For the production of sparkling wines using grape varieties Pinot grown in the Champagne region. Large firms that produce champagne - "Vёv Clicquot Ponsardin", "Pomery rattling", "Mercier", "Myumm", "my et Chandon", "Louis Rёdene (Kuptsov, 2002).

Another home country for the world's famous wines is Italy. In the territory of Italy it is producing a variety of white and red wines - from the ordinary diners with strength of 10-11% vol. to high-quality extracts of different periods strength of 10-13% vol. Italy produces over 3 thousand wines of controlled origin -. D.O.K. and wines of controlled and guaranteed origin - D.O.K.G. (Korneyev, 2001).

Korneyev also mentioned main wine regions - Piedmont, Sicily, Puglia, Tuscany, Emilia - Romagna, Venice.

The best wines of Piedmont made 34 controlled items. The most famous red wines are Barolo, Barbaresco, Gattinara and others.

Tuscany is famous for its grape dessert wines - Moscato case of Elba, Aleatico di Portoferraio and Chianti: Red - Wine Nobile di Moltalchino white - Bianco di Pitigliano, Bianco Vergine case Val di Kayana and others (Korneyev, 2001).

In Spain, the main wine-growing regions are Galicia, Andalusia, the Basque Country, Navarra, La Rioja, Panades, Catalonia, Valencia. Spanish wines are characterized by great diversity. Here produce ordinary and natural high-quality and special wines. Special wines are divided into strong, "engineers have" liqueur "engineers have" liqueur flavored vermouth, aperitifs based on wine, sparkling, sparkling "petiyyan" (Chebotarev and Chebotareva, 2003).

Galicia is famous for its white wines dining Alvarino, Rivera; Navarre - pink and dark red. Spain considered the best in the Rioja wine, and among them are the greatest recognition Alavskoy wines of Rioja. In the central part of Spain produces a wide range of types of wine: wine is considered to be the most popular Valdepenas. The southern part of the country is a famous special wine - sherry, malaga, wine-and-Moriles Montilla, of Manzanilla Sashgukana de Barrameda (Chebotarev and Chebotareva, 2003).

- **Outside Europe**

Information and data below was taken from *International Organisation of Vine and Wine* "STATE OF THE VITIVINICULTURE WORLD MARKET" paraphrased,explained and interpreted by author of the thesis.

Table 2 Total areas under vines in vineyards outside Europe in thousands of hectares (kha)

Country	2012	2013	2014	2015	2016 forecast	2015/2016 variation
China	707	757	796	830	874,5	44,5
Turkey	497	504	502	497	499,5	2,5
United States	412	422	419	419	422,5	3,5
Argentina	222	224	226	225	227	2
Chile	206	208	211	211	213,5	2,5
Australia	162	157	154	149	145	-4
South Africa	135	133	132	130	128,5	-1,5
Brazil	91	90	89	85	84	-1
New Zealand	38	38	38	39	39	0
Other African countries	237	234	234	234	232,5	-1,5
Other American countries	89	93	96	97	100,5	3,5
Other Asian countries	597	592	594	594	592,5	-1,5
Total outside Europe	**3393**	**3452**	**3491**	**3510**	**3559**	**49**

Source: *International Organisation of Vine and Wine* “STATE OF THE VITIVINICULTURE WORLD MARKET”. Own representation.

Area of vineyards outside Europe are predicted to be increased slightly (on 49 kha more than in 2015).

The country which is defined as the main driver of growth of the world area under vines is China (+44 kha between 2015 and 2016,which is even more than between 2014 and 2015) and thus confirmed China’s position attained in 2014 and 2015 as the country with the second largest vineyard surface area worldwide. In Brazil, between 2014 and 2015 there was an erosion of the vineyard surface area and the area decreased by 4 kha, but in 2016 the value of reduction will be only 1 kha. Meanwhile in other American countries there was not recorded any significant variation in the square of vineyards, but it has constant growth since 2012. In New Zealand, unlike in Australia where the trend goes on to decrease since the 2012, vine areas has increased to 39 kha. In South Africa its vineyards constantly decline, reaching 128,5 kha in 2016.

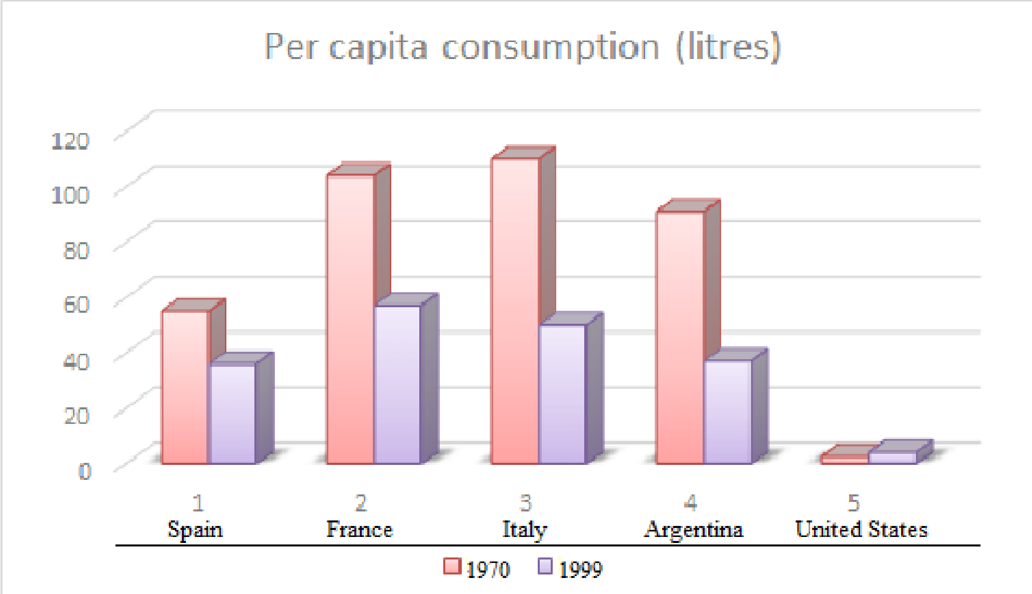
3.2.3 Wine consumption

For estimating the situation with wine consumption data from 20th century was also included. Protin R. in 1970 says that during the last third of the twentieth century, the world wine market became significantly more competitive. In 70’s years consumption declined in the traditional wine producing and consuming countries (“Old World”), while the “New World” nations like USA, Australia and Latin America countries (Chile, Brazil) started to consume more, also there was one more change- prosperous consumers preferred quality rather than quantity in consumption.

During this same period, US per capita wine consumption has almost doubled and, more important, US consumers have chosen to drink more expensive wine in a search for quality, a trend that seems to be true of European wine consumption as well. The New World producers have been quick to respond to global perceptions of quality, and have gained significant market share in the past 20 years, moving from 2 to 15% of the world export market.

Since that period the “Old World” countries were not the monopolists in the world wine market.

Figure 2 Wine consumption per capita in litres



Source: article "The present and future of the international wine industry " by Bisson, Linda F. et al Own representation.

Linda F. Bisson in her article "The present and future of the international wine industry" mentions that at the beginning of 20th century, France, Italy and Spain combined to produce slightly more than half of all the world's wine, but as it is shown the figure above only 30 years before their own per capita consumption was 40–50% more. Thus leaded to an oversupply of 'Old World' wine (Protin, R., 1971).

Information and data below was taken from the report of ISWR (International Wine & Spirit Research) paraphrased,explained and interpreted by author of the thesis.

According to the results of research that was conducted by the agency ISWR (International Wine & Spirit Research) during the VinExpo about 2 billion bottles of wine was drank in the world in the period between 2010 and 2015.

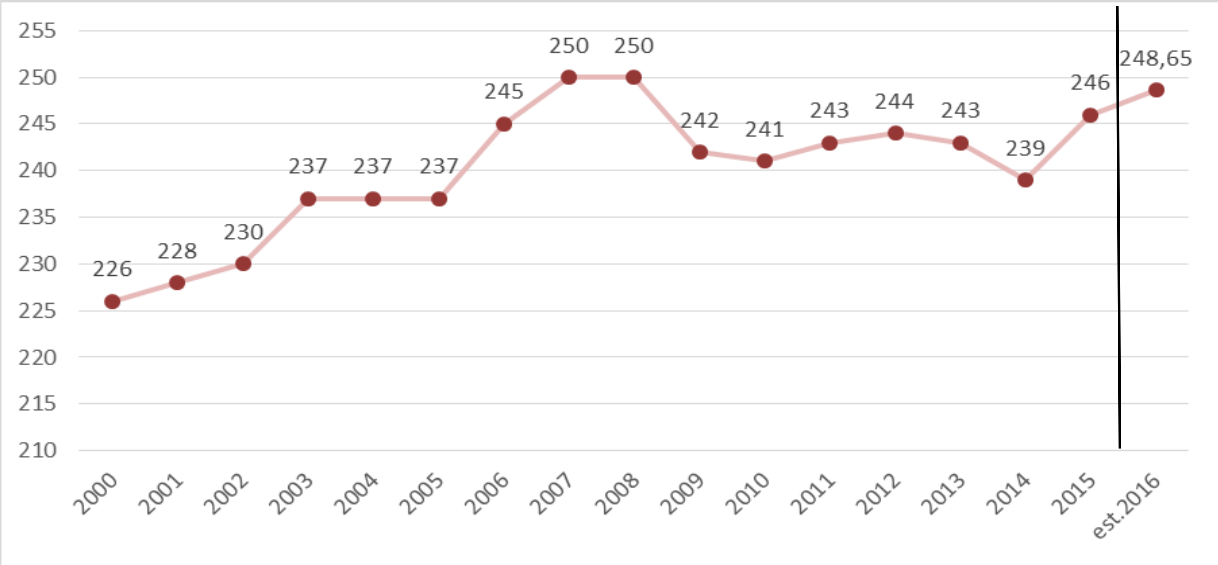
In 2010, worldwide wine consumption has reached 2,640 billion 9-liter boxes that is 31680000000 bottles (there is 12 bottles in one 9-liter box, each bottle is 0,75 l). Comparing with 2006 consumption has increased on 4.5%.

The research was made among 114 consumer market and 38 producing countries. After analysing the data prepared, IWSR predicted that he demand will be increased on 6.17% in the period 2010-2015. Agency believed that by the end of the period it would reach 2.844 billion boxes (an increase is 2.04 billion bottles).

Figure 3 below shows the volume of global wine consumption from 2000 to 2015. In 2012, the wine consumption worldwide amounted to 244 million hectolitres, up from 226 million hectolitres in 2000. According to the values from 2000 to 2015 the consumption for 2016 was predicted to be 248,65 mhl.

The average consumption for the last 15 years is 240,4 mhl.

Figure 3 World wine consumption in millions of hectolitres (mhl)



Source: *International Organisation of Vine and Wine* "STATE OF THE VITIVINICULTURE WORLD MARKET". Own representation.

Information and data above and below was taken from *International Organisation of Vine and Wine* "STATE OF THE VITIVINICULTURE WORLD MARKET" paraphrased,explained and interpreted by author of the thesis.

European wine consumption has fallen over last years: it is predicted that fall in France will be amounted to 27.0 mhl in 2016. This year in Italy there also will be decay - 5%. Situation in Spain is more stabilized (less than 1% of decrease). In Northern countries in 2015, Germany (20.5 mhl) and the United Kingdom (12.9 mhl) saw a growth in inbound markets of nearly 300 khl compared with 2014, but in 2016 the UK will consume less. Domestic consumption levels in Germany and Italy are now very similar. Specialists tend to believe that this reductions caused by financial crisis and economic situation in the countries.

Table 3 World wine consumption mhl

Country	2011	2012	2013	2014	2015	forecast 2016	%Variation 2015/2016
United States	28,3	29,2	30,3	30,7	31	32,0	3,10%
France	28,3	28	27,8	27,5	27,2	27,0	-0,90%
Italy	23,1	22,6	21,8	20,4	20,5	19,5	-5,00%
Germany	19,7	20,3	20,4	20,3	20,5	20,7	1,10%
China	16,3	17,1	16,5	15,5	16	15,6	-2,40%
United Kingdom	12,9	12,8	12,7	12,6	12,9	12,7	-1,40%
Argentina	9,8	10,1	10,4	9,9	10,3	10,3	0,40%
Spain	10	9,9	9,8	9,9	10	9,9	-0,80%
Russia	12,2	11,3	10,4	9,6	8,9	8,0	-11,40%
Australia	5,3	5,4	5,4	5,4	5,4	5,4	0,73%
Portugal	4,7	5	4,8	4,7	4,8	4,8	-0,60%
South Africa	3,5	3,6	3,7	4	4,2	4,3	4,20%
Romania	4,1	4,3	4,6	4,7	3,9	4,3	9,80%
Netherlands	3,4	3,5	3,5	3,4	3,3	3,3	0,90%
Greece	2,9	3,1	3	2,6	2,6	2,5	3,60%
Sweden	2,3	2,3	2,4	2,5	2,6	2,7	2,30%
Austria	2,6	2,5	2,5	2,5	2,4	2,4	-0,84%
Hungary	2,1	2	1,9	2,2	2,1	2,1	0,50%
Denmark	1,9	1,5	1,6	1,6	1,6	1,5	-7,30%
Rest of world	*49,5*	*49,1*	*49,5*	*49*	*49,9*		
World	**243**	**244**	**243**	**239**	**240,1**		

Source: *International Organisation of Vine and Wine* "STATE OF THE VITIVINICULTURE WORLD MARKET". Own representation.

On the other hand, wine consumption has increased in the other parts of the world, driven by the households of the two leading global economies—the United States and China.

Nowadays the United States is the leader in world wine consumption even though it is not the main producer. In 2016 US's consumption is estimated at 32 mhl, and it has an almost stable growing level compared with the previous year's consumption.

In China, wine is getting more popular because of the average income of the population.

In Australian and New Zealand markets, consumption tends to remains stable at 6.3 mhl for three years (including the small decline in Australia and resumption of growth in New Zealand). In some countries of the "New World" wine is the new kind of beverage and it is only becoming popular like in South Africa. It's consumption is growing from year to year, in 2016 it is estimated to reach 4,3 mhl.

In South America, the biggest consumer is Brazil, it consumes 1,4% of the world wine. In Argentina and Chile the domestic consumption became bigger than in 2014.

According to the data reported by VinExpo between 2009 and 2013 the drink consumption increased by 2.7 per cent, while the annual revenues from wine sales exceeded 2.64 billion dollars. The agency predicts that in the next three years, the increase was still 3.7 percent. In 2018 people all over the world will drink 32.8 billion bottles, or 24.6 billion liters. It is noted that the engine of growth will be the markets of the United States, United Kingdom and China.

3.2.4 Wine production

Information and data below was taken from *International Organisation of Vine and Wine* "STATE OF THE VITIVINICULTURE WORLD MARKET" paraphrased,explained and interpreted by author of the thesis.

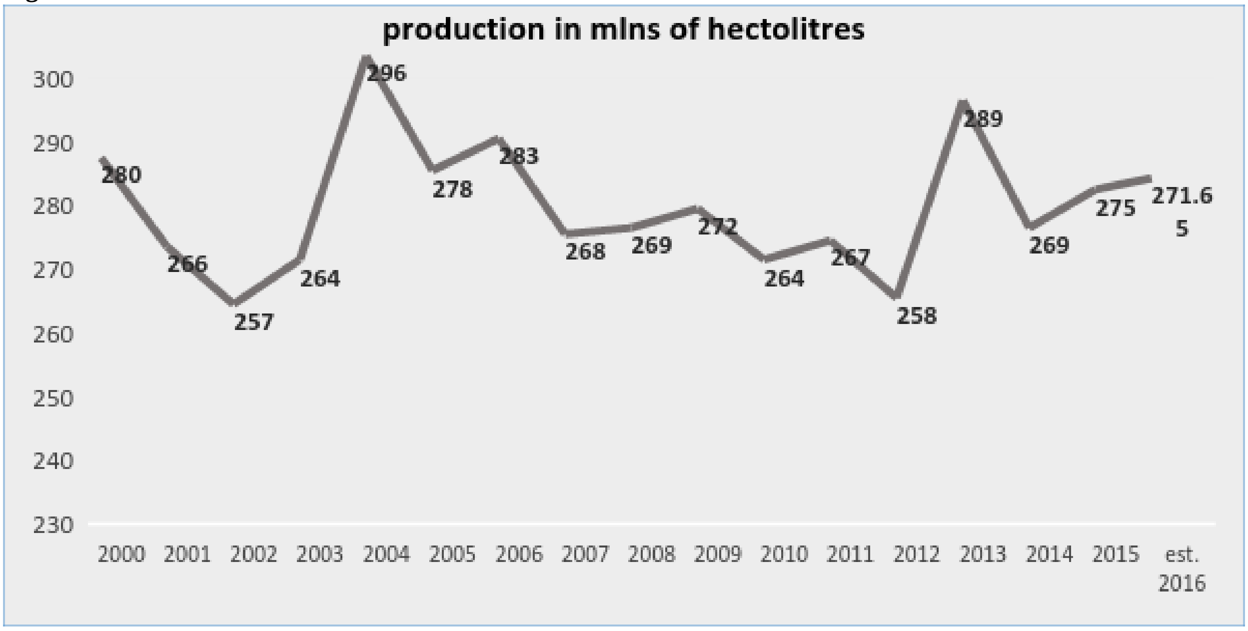
In 2015 the world wine production (excluding juice & must) (an estimated mid-range was between 271.3 and 277.5 mhl, which is between +1.0% and +3.3% compared with 2014.) was relatively high in 2015. It reached almost 275 mhl, equating to +5.8 mhl compared with 2014 production.

In the last decade, there is a stable growth in the New World's wine market share. The new producers have price policy, fresh marketing strategy, understanding of the new technologies and more simple system of governmental regulations of Wine production, and it helped them to reach 40% in the global wine producing market.

In 2016 the production is forecasted to decline unlike in 2015 when it reached 275 mhl. In 2016 it tends to be 272 mhl.

The average wine production is 272,2 mln of hectolitres, so over the average volume of production were results in 2000 and in period from 2004 to 2007, 2013 and 2015.

Figure 4 Production in mhl



Source: *International Organisation of Vine and Wine* "STATE OF THE VITIVINICULTURE WORLD MARKET". Own representation.

In 2014 in Italy the value of production was only 44,2 mhl, meanwhile in France it was almost 47 mhl, so the Italy lose the first position in the world. But in 2015 Italian harvest reached 49.5 million hectoliters, ahead of France's 47.5 million. This returned the number one position to Italy in world wine production. According to the forecast for 2016 French winemakers will produce less (45,37 mhl).

Despite the economic crisis wine market continues to expand in year to year.

In relation to the average production levels of the main producers in 2015 the growth was Italy, France, United States, Chiles, Portugal and Hungary, but the growth will be continued only in Italy, U.S and Portugal in 2016.

Table 4 Wine production by countries in mhl

Country	2011	2012	2013	2014	2015	Est.2016
Italy	**42,772**	**45,616**	**54,029**	**44,229**	**49,5**	**50,85**
France	50,757	41,548	42,134	46,804	47,5	45,37
Spain	33,397	31,123	45,308	38,211	37,2	41,46
United States	19,14	21,65	23,59	22,02	22,14	23,62
Argentina	15,473	11,778	14,984	15,197	13,358	13,91
Chile	10,464	12,554	12,82	10,5	12,87	12,67
Australia	11,18	12,259	12,31	12,02	11,9	12,29
South Africa	9,725	10,569	10,982	11,316	11,2	11,87
China	13,2	13,511	11,78	11,178	11	10,11
Germany	9,132	9,012	8,409	9,202	8,9	8,85
Portugal	5,622	6,327	6,231	6,195	6,703	6,82
Russia	6,98	6,22	5,29	4,88	4,88	3,99
Romania	4,058	3,311	5,113	3,75	3,5	3,74
Hungary	2,75	1,818	2,618	2,555	2,873	2,82
Brazil	3,46	2,967	2,71	2,732	2,8	2,47
Rest of World	*29,693*	*27,948*	*33,91*	*29,445*	*28*	*29,23*
World	**267,803**	**258,211**	**292,218**	**270,234**	**274,4**	**280,62**

Source: *International Organisation of Vine and Wine* "STATE OF THE VITIVINICULTURE WORLD MARKET". Own representation.

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The general director of OIV Jean-Marie Aurand mentioned main contrasting developments in the next regions:

- Europe remains the leader in the World production of wine;
- In South America, Argentine wine production in 2016 will be grown on 0,5 mhl, after its decrease in 2015. The inverse situation will be in Chile because it had the growth in 2015, and in 2016 there will be reduction.
  For Brazil production stayed with the slight stable growth;
- In South Africa, vinified production reached a high level for the third year running in 2015 with 11.2 mhl – although this constitutes a small drop compared with that of 2014 (11.5 mhl);
- Australian wine-makers are predicted to be re-established at 12,29 mhl.

3.2.5 Wine prices

The following information was written from the interview and the article on the website of the professional sommelier working in the winery in Russia, Sergey Popov.

Nowadays, there is a question which should worry everyone: "Why is one bottle more expensive than another, and some are so expensive that cannot be even afforded by the average customer?". There is a reason for everything or even the group of factors influencing this phenomenon.

The first, the basic factors is the cost of raw materials:

- the grapes that merchants purchased from grapegrowers;
- for winemakers who own land - the value of these grape hectares.

The price of land is determined by a variety of factors, including site exposure, height above sea level, soil type, vine age and their classification and much more (Decanter-aroundwine.blogspot.cz, 2012). The marketing factors of the country, region and production zone are also important. Finally, production zones are not equally recognized in different markets. Example: Barolo (a wine from a sort of nebbiolo) has much more recognition than another wine from a sort of nebbiolo, for example from Valtellina. Recognition of land developed historically, and the rise in prices was motivated and gradual (Decanter-aroundwine.blogspot.cz, 2012).

The cost of grapes can form up to 60% of the price of wine (American winemakers believe that a bottle of wine should cost 0.01% of the cost of a ton of grapes). The price of grapes differs depending on the variety and demand for it.

Below the conditional calculations shown:

- The average cost of grapes in Champagne (France) in 2010 was - 5500-6000 EUR per ton;
- Nebbiolo in Piedmont - 3500-5500 EUR;
- Chardonnay in Cote de Bon (Burgundy) - 2700 EUR;
- Negociants pay for the CD. Grapes in the Company (Italy) - 1500 EUR.

Equipment in the winery also affects pricing. The winery must be constantly updated. And although every winemaker understands that wine is a business that does not bring quick profits, at least 10% of the profit will be included in the value of its product.

Oak arithmetic:

Sergey maintioned that wines from 3,5 EUR (in the country of the manufacturer) - a simple, light wine without contact with the oak, if it is present - it's chips.

Wine from 6 to 10 EUR - can be aged in old casks, but should pay attention to the brand and the manufacturer.

Wine from 10 EUR, can be sustained in a barrel, adjusted for the exchange value of raw materials and the cost of land. Wine from the south of France may well be sustained in new barricades.

Exception: quite often winemakers buy used 2-3 summer barrels, before such a barrel cost 600 EUR, and now it is sold for 40-50, that is, the mark-up on the bottle is only 20%.

One of the problems of modern wine-growing Europe is the liberal labor legislation that has corrupted even traditionally industrious peasants - it is limited by the law 35 working hours (per week), with a minimum wage of 1,250 EUR. The owner of the winery is forced to attract unskilled labor, and this is a loss of quality in harvesting, or twice, or even in three big pay to his countrymen, if the winemaker chooses the latter, all this leads to an increase in the price of wine. Cheap labor is the main factor of cheapness of wine from the New World.

Cork and bottle, also affects the price of wine. If the wine costs from 20 EUR, it requires an expensive bottle and an attractive label. For wines designed for long storage, expensive plugs are needed.

Composite, that is, the glued cork costs 0.05 EUR, and the Portuguese (6 cm) from a single piece of bark - 3-3,5 EUR, again the squeezed name of the manufacturer still makes the price even heavier.

A huge role is played by the coefficient of the manufacturer's name (Decanter-aroundwine.blogspot.cz, 2012). The most important parameter of prestige is the ability to maintain the highest quality while increasing production volumes. To make, for example, 10 thousand bottles of "rating wine" is much easier than, for example, 400,000 bottles of Chateau Margaux.

Besides the production costs there are additional expenses which wineries has to face with. Tax legislation is condescending to winemakers in almost all of Europe. In France, the tax on a bottle of wine is 0.75 liters. Is only 5 euro cents, this is not much at all, the state patronizes winemakers, but this does not apply to VAT, which is 19.6% - in the whole of Europe (Decanter-aroundwine.blogspot.cz, 2012).

In Italy, taxes are slightly higher, excise fluctuates around 10 euro cents, and only in the US and some New World countries where wine is not part of the national heritage, direct taxes on the winemaker reach 1.5 EUR per bottle.

A huge role, as well as ratings and press. It is believed that the cost of advertising is up to 15% of the cost of the bottle.

Different channels of advertising will use copyright and more massive wines. The main channel of the first is sampling (tasting in the framework of ratings, presentations, masterclasses and exhibitions).

The main channel of the second is image advertising (it's useless to try their wines), for example, like shampoo or soap, the cost can be half the price of the goods.

Another item of expenditure is imports (excises, taxes and duties are imposed on the importer). The price market for wines of different price categories is formed in different ways. If the wines of the category 15 EUR are sold in large quantities, the mark-up is minimal, than for wines from 50 EUR sold "by hand" - in restaurants and specialized boutiques. If the wine lies on the shelf for half a year, then the price increase of up to 50% may be due to this fact.

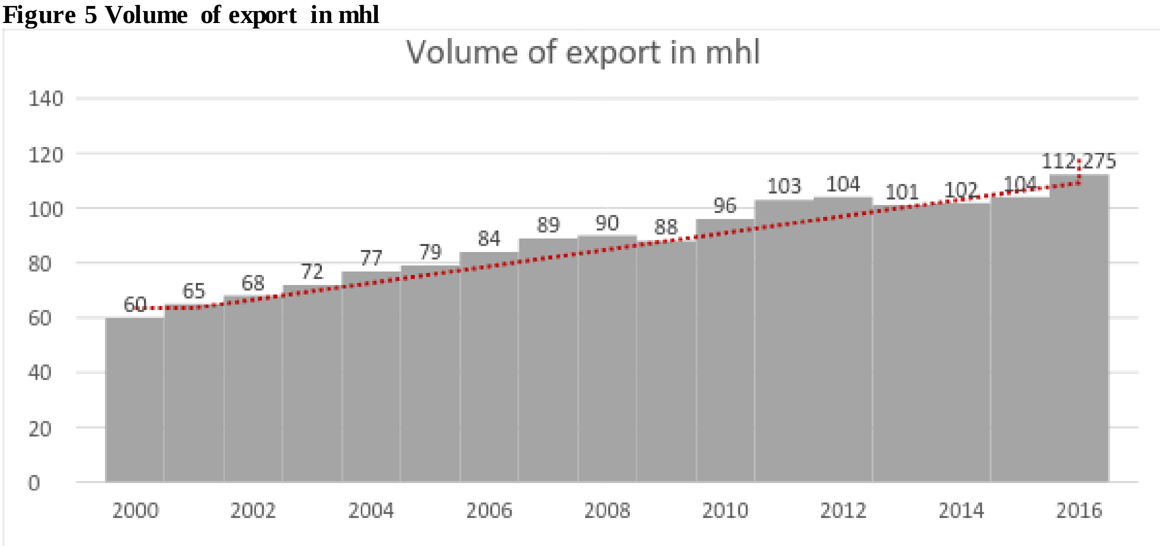
3.2.6 Trade

Information and data below was taken from *International Organisation of Vine and Wine* “STATE OF THE VITIVINICULTURE WORLD MARKET” paraphrased,explained and interpreted by author of the thesis.

Total export of all countries in the world in 2015 was nearly 104,3 mhl. Total volume of sales was 28,3 bn EUR, it is increased by 10,6% comparing to 2014.

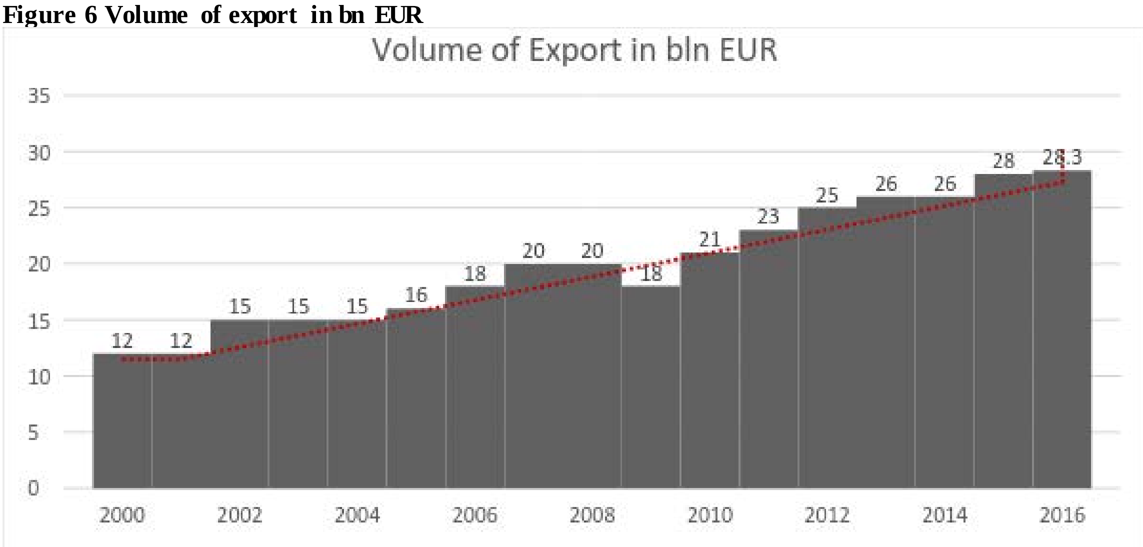
Volume of export believed to grow intensively till 112 mhl in 2016.

Figure 5 Volume of export in mhl



Source: *International Organisation of Vine and Wine* “STATE OF THE VITIVINICULTURE WORLD MARKET”. Own representation.

Figure 6 Volume of export in bn EUR



Source: *International Organisation of Vine and Wine* "STATE OF THE VITIVINICULTURE WORLD MARKET". Own representation.

Volume of export believed to grow intensively till 112 mhl in 2016.

In terms of product type, the main trends in the world market were as follows:

- The world trade weight of bottled wines continued in a slight downward trend in terms of volume between 2014 and 2015;
- The wine market is expanding 10 years ago were imported only 27% of wine consumed, now that the market share reaches 43%;
- The bottled wine is still dominating on the market, despite the strong growth in exports of bulk wines. These changes indicate the resumption of the global market volume growth after a pause in 2013, which has happened due to the revaluation of products;
- According to the type of product, the following changes in the world market have been noted in the report: slowly recovering of bottled wine market, the share of this segment in exports in the period from 2013 to 2014 decreased from 65% to 54%. In terms of price, it is still the largest segment, accounting for about 71% of the total value of exports of wine;
- Sparkling wine exports accounted for 8% of the total exports in 2015 and grew by 5.6% in one year;
- Bulk wines and wine in containers of 2 litres or more showed a slight increase in exports (+ 1.3% / 2013), but also a very significant cost reduction (-10.8%), which is associated with the redistribution of market share among the main exporting countries.

Figure 7 World wine market (excluding must)

	Volume (mhl)		**Value (bn EUR)**		**Type**	**2015 vertical structure**	
	2014	2015	2014	2015		**Volume**	**Value**
World	102,4	104,3	25,6	28,3	**Bottle**	54%	72%
					Sparkling	8%	18%
	1,8 % variation		10,6% variation		**Bulk and >2 L**	38%	10%

Source: *International Organisation of Vine and Wine* "STATE OF THE VITIVINICULTURE WORLD MARKET". Own representation.

Exporters:

The leader of export by volume of wine become Spain with 24 million hectoliters, the next major exporters are Italy (20 mhl) and France (14. Mhl).

In monetary terms, the leader in exports was France (8,2 billion EUR and its share is 29% of the global market), in second place - Italy (5,3 bn EUR)and in the third was Spain with 2,6 bln EUR.

France, Italy and Spain together occupy 56% of the wine export volume (104.3 million hl). The most significant growth in exports for the year recorded in the United States (26.5% in value terms) and China.

The next major exporter are countries from the "New World" with their rather young wine markets. Chile's export in terms of volume was equal to 8,8 mhl and accounted as 1,6 Bn EUR.

Australia has also raised its volume by 6,4% and the value of export.

Only European leaders in export's volume had the reduction in 2015 (Germany - 6,6%; Portugal-1,2%, also Italy and France).

Spain is still the leading exporter that has 24 mhl and a global market share of 23%. The growth in export remained in Chile, Australia, United States, Argentina and New Zealand.

The volume of export in 2016 is predicted to stay around 104 mhl but in value terms it will be raised to 30 bn EUR. Director of OIV Jean-Marie Aurandin her annual report noted that the bigger share of export will be held by Asian countries soon.

Table 5 Main wine exporters (excluding must)

Country	Volume (mhl)		Value (bn EUR)	
	2014	2015	2014	2015
Spain	22	24	2529	2641
Italy	20,4	20	5081	5353
France	14,3	14	7720	8244
Chile	8,1	8,8	1388	1650
Australia	7	7,4	1262	1459
South Africa	4,2	4,2	594	629
United States	4	4,2	1103	1395
Germany	3,9	3,6	976	953
Portugal	2,8	2,8	725	738
Argentina	2,6	2,7	631	737
New Zealand	1,9	2,1	845	963

Source: *International Organisation of Vine and Wine* “STATE OF THE VITIVINICULTURE WORLD MARKET”. Own representation.

Importers:
In 2015 global wine level reached 102,6 mlh (1,3 mhl more since 2014).

Table 6 Main wine importers (excluding must)

Country	Volume (mhl)		Value (bn EUR)	
	2014	2015	2014	2015
Germany	15,4	15,1	2259	2466
United Kingdom	13,6	13,6	3602	3915
United States	10,7	11	4038	4855
France	6,9	7,8	621	669
China	3,9	5,6	1145	1840
Canada	3,8	4,1	1465	1618
Russia	4,7	4	865	625
Netherlands	3,8	3,5	954	867
Belgium	3,1	3,2	997	930
Japan	2,7	2,8	1210	1319

Source: *International Organisation of Vine and Wine* “STATE OF THE VITIVINICULTURE WORLD MARKET”. Own representation.

Countries above represent the biggest part in the imports – almost 70% ,the growth compared with 2014 is 3%.

Germany is still leader in import in terms of volume for the last several year, even though its import decreased by 2%. But in terms of value the leader is United States who has +20% in 2015. United States is the 3rd importer- country by the volume of wine bought.

United Kingdom is on the 2nd place in the both categories with the stable 13,6 mhl in 2014 and 2015, and raising 3,9 bn EUR in 2015 (+9%).

China has the biggest variation in 2015, so the forecasts about growing popularity of wine among the population in this country were true. Growth in 2015 amounted to 45% in volume: from 3,8 mhl to 5,6 mhl. The import in terms of value also has grown intensively 61%. The domestic demand in China was the main contributory factor, in terms of volume, to trade growth in 2015.

There was a growth in French import +12%in terms of volume in 2015.

Another import leader in terms of volume is Russian Federation which has 4,0 mhl imported in 2015, but it is less than in 2014 when it was 4,7 mhl.

The “New World” country Canada has the stable slight growth in both terms of import during the last several years. In 2015 Canada imported 4,1 mhl (7% more than in 2014) and 1,6 bn EUR (10% more).

Global volume of Wine import is estimated to reach 102,6 mhl in 2016,and in monetary terms amount to almost 30 bn EUR.

3.3 The future of the wine industry

In this part the future of wine and wine industry will be analysed. The analysis is based on observations and report of Robert Joseph, the founder of the Wine International magazine.

Robert Joseph in his book “Wine tourism” in 2001 mentioned that nowadays, in Italy, 250 000 producers (small private traders, cooperatives and merchants) are licensed to produce on the wine market under its own brand. There are 12 000 licensed working wineries in Bordeaux and 5000 more in Champagne. People across Europe who used to be just the growers and sell their grapes to the largest wine producers or co-operatives today are convinced that the market will be a place for bottles,that will be named after them (Joseph, 2005). During the last decade of the XX century the number of wineries in California (and wine brands) increased by 50%, so that now there are more than 5000 (Joseph, 2007).

How do consumers react to such a sharp increase in diversity? Many of them say they are very pleased to increasing the range, but in fact most of consumers have favorite brand and they prefer to be loyal. And just as in the case with 25 TV channels available in the UK: only five channels attract the attention of 83% of the audience, the market is ruled by a limited number of brands in the wine market (Joseph, 2007).

Therefore, the trend of increasing the number of wine names will change in the next 20 years for the return, and perhaps, the world will miss half the number of wineries, which is observed today.

“Cheap wine will be cheaper, but the prices of expensive will be grown” believes Robert Joseph.

In the recent years there is a new tendency of wine polarization that was noted in the United States.. On the one hand it offers very cheap, on the other - a very ambitious and expensive. Now one of California's most popular wine is a «Two Buck Chuck» for $ 1.99 per bottle. Robert also told that at the same time the average price of Cabernet Sauvignon from Napa Valley in the US is $ 52. In the UK, consumers are not willing to pay much for the "average" wines: their favorite polka that, where there are bottles for $ 7-14. Of course, cheap wine is reaching the edge, but if the consumer considers himself a connoisseur, he should deign to spend more. Pricing policy, unfortunately, tend to become the most important on the world market (Joseph, 2007).

The challenge to wine producers in this new century is daunting — to understand the fundamental motivation behind consumer choice and to produce wines of enhanced attractiveness while simultaneously developing and implementing sustainable production practices for both grape growing and winemaking. Success in this endeavour necessitates determining the role of both intrinsic and extrinsic factors that underlie preference, perception and behaviour, and putting that information into practice (Bisson et al., 2002).

How do experts see the future of the industry? As the knowledge would be gain of the basic biology of human perception and flavour preferences, wines will become even more targeted to the genetic differences of the consumers. Studies currently in progress will continue to document the healthful properties of wine. In addition, the industry will need to play a highly visible role in the promotion of sound and sustainable environmental stewardship, as this will be a strong motivating factor in the purchase of wines. The stakes of success in meeting consumer expectations are high, as the value-added aspects of enhanced tourism are undeniable and economically beneficial for the entire region (Bisson et al., 2002).

Summarizing all aspects above, analysis of the future of the wine industry has shown that the wine will be better quality, less strong, will be paid great attention to its beneficial qualities and that cheap wine will become cheaper, the expensive ones more expensive.

4 Practical Part

The following chapter describes describes the practical part of the research. For this purpose, author showed the influence of the wine origin on the example of the chosen country. In order to describe the state the mini survey has been conducted.

4.1 History and geography

Viticulture and winemaking is the one of the most efficient sectors of the economy, which gives a major economic effect (Kondion, 1965).

Even though Kazakhstan is not a famous wine-making country, local wine history starts long ago here. The first evidences of the viticulture on the territory of Kazakhstan was found in the floodplain of the Chu and Talas rivers, they are dated to the 7th and 8th centuries. The oldest grape growing region is Shymkent, Turkestan region (Dzhangaliyev, 2002). There is a theory that wine have been introduced to the local people by traders who was following the great Silk Way while crossing Kazakhstan from the nearby province Xinjiang in China (Dzhangaliyev, 2002). But even including the early evidences, winemaking here developed poorly. In Soviet times the area of vineyards has increased significantly and wine industry began to develop. The domestic winemaking industry started with the opening of the first wine plant "Kaplan-bek". In 1931 in Kazakhstan were only 1017 hectares of vineyards (Dzhangaliyev, 2002). By the end of 1940 the area of vineyards reached 1850 hectares. Since 1956 the area under vines growing rapidly and in 1992 in the republic there were about 15 thousand hectares of vineyards, and the gross grape harvest amounted to 44 thousand tons (Kondion, 1965). On average Kazakhstan has been accounted for about 2% of the total area of vineyards and 1.9% of gross harvest of grapes the whole Soviet Union. The share of vineyards in the area of agricultural lands of the republic was less than 1%, grape production in the structure of gross crop production. - about 2% (Kondion, 1965). But in 1980 in order to deal with the drinking of alcoholic beverages, Soviet authorities had to cut down the vines throughout the Soviet Union. Kazakhstan lost about 70 percent of the area of their vineyards.

Climate of all regions of Kazakhstan is sharply continental with frequent spring and autumn frosts. The most common vine growing region is in Southern Kazakhstan (South

Kazakhstan, Zhambyl, Alma-Ata and Taldy-Kurgan region) because only south part of Kazakhstan is suitable for the grape growing (Dzhangaliyev, 2002).

Alma-Ata region is the eastern region industrial grapes in the USSR (Soviet Union). This region is characterised by its variety of landscapes with different vertical zones of climate, soil and vegetation. The biggest vineyards are located in the foothills of the Trans-Ili Alatau - in Enbekshi-Kazakh, Chilik, Casco Lepsky, Panfilov and other areas at the altitude of 400 - 800 m above sea level. The common soils are light and dark brown, there are also detrital black soil and gray soils (Kondion, 1965). The number of frost-free days (150 - 180) and the amount of active temperatures (2800 - 3400 °) lead to the ability to grow grapes like Pinot Noir, Riesling, Aligote, Cabernet, Kuldja, Rkatsiteli, Saperavi, Muscat Hungarian, white Muscat, Terbash, Kokur white, Bayan Shirey et al. (Kondion, 1965).

Kazakhstan’s "Soviet champagne" was noted with the very high quality for the several times and honored with gold and silver medals on different exhibitions. Deservedly famous vintage table wine "Riesling" Issyk "," Riesling from Alma-Ata ", derived from the Riesling grape. From Kuldja grapes "Chilik table” table wine are made.

Zhambyl region has vineyards located mainly at the altitude of 600 - 800 m above sea level. Vineyards are mainly located in Dzhambul, Sverdlovsk, Merke and Lugovskoy areas. In addition to table wine, farms in this region grow also technical types of the grape. These fruits mostly used in producing table and fortified wines (port and vermouth) (Kondion, 1965).

Chimkent region is located in the most southern part of the Kazakh SSR, adhering to the oasis of Tashkent, Uzbek SSR. Fruit and winegrowing farms are located in Sary-Agach and Tyulkubas areas at the altitude of 300 to 1,000 meters above sea level. The conditions for growing grapes here are more favorable than in Alma-Ata region: hot in summer, less frost days in winter. This conditions allow to grow grapes, which accumulate large amount of sugar (up to 28 - 30%): Muscat pink, purple Muscat, Muscat Hungarian, Rkatsiteli, Saperavi, mattresses, etc. The high sugar content in the grape berry allows the area to obtain excellent dessert (liqueur) wine. Sary-Agach region is the birthplace of dessert wine Kazakhstan (Kondion, 1965).

4.2 Wine Nowadays

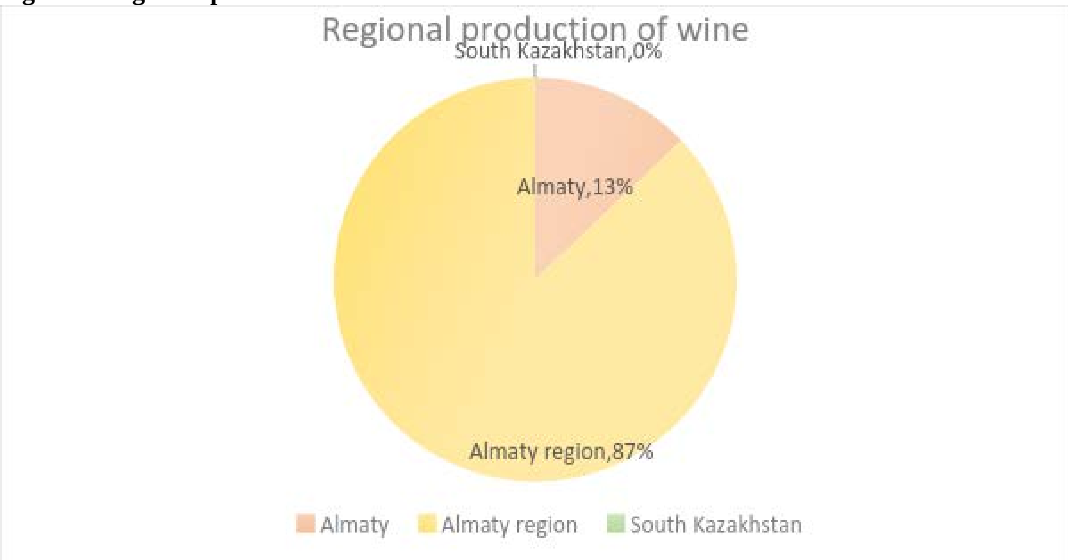
In the beginning of 21st century wineries in Kazakhstan started to develop more intensively than in previous 20 years (Dzhangaliyev, 2002). Kazakh specialists tried to recover wineries which left from Soviet Union times (Dzhangaliyev, 2002), this is one of the main reasons why wine industry is more developed in the south of the country.

4.2.1 Wine production in Kazakhstan

Information and data below was taken from Annual KAZDATA report (Kazakh statistical office) paraphrased, explained and interpreted by author of the thesis.

Kazakhstan has very big territory (2,7 mln km squared – reported by Ministry of regional development in Kazakhstan Republic, 2003) but as it was mentioned before unfortunately only small part of it is applicable for the grape growing- Almaty, Zhambyl and the South Kazakhstan regions. According to official statistical information provided by Statistical Committee of Kazakhstan, more than 87% of all grape was grown in Almaty region in 2015. And all other wine in still mainly produced in the south.

Figure 8 Regional production of wine in Kz



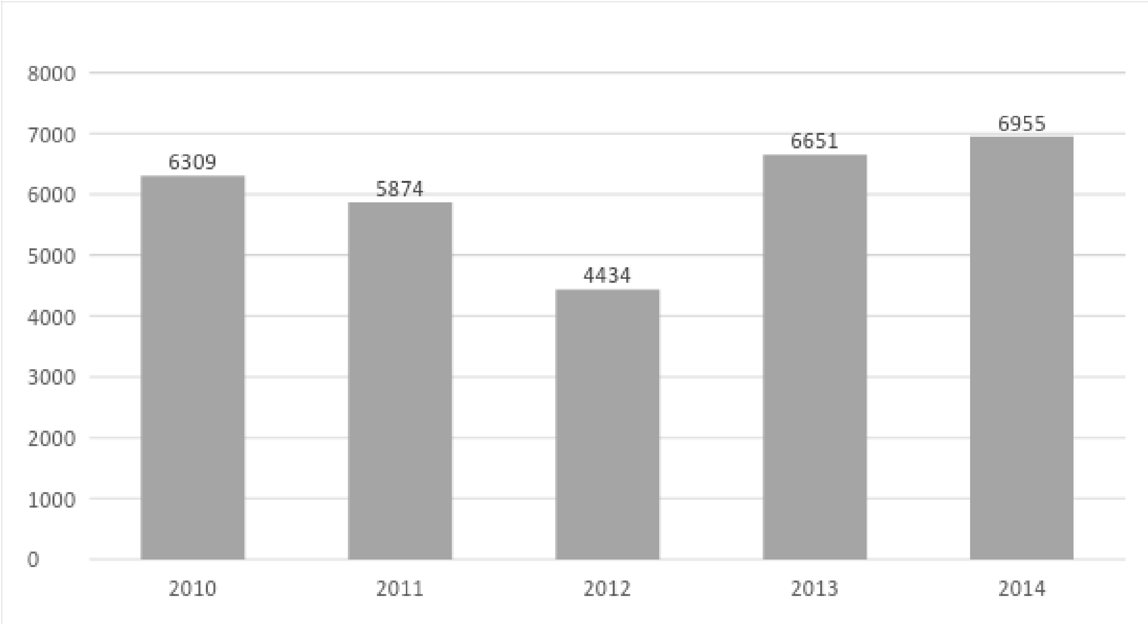
Source: KAZDATA (Kazakh Statistical Office), Own representation

The total area of the vineyards in the country is 11.2 kha according to the Statistics Committee of the Republic Kazakhstan. The area of vineyards increased from 2009 by 1.5 kha, and according to this information it is supposed that winery has good potential for its development. Main wine grape varieties suitable for cultivation in the Republic of

Kazakhstan - Aliquot (early-medium ripening) Kuldja (late ripening), May Black (mid-late ripening), Saperavi (late ripening) and rkatsiteli (late period maturation).

Nowadays, production of wine in Kazakhstan depends more on climatic factors than economical. Production volume increase from year to year except non-prolific years like 2012.

Figure 9 Analysis of Wine Production in litres



Source: KAZDATA (Kazakh Statistical Office), Own representation

Comparing with the situation on the market of other soft drinks production of wine in Kazakhstan demonstrates steady growth, according to the analytical service Energyprom.kz.

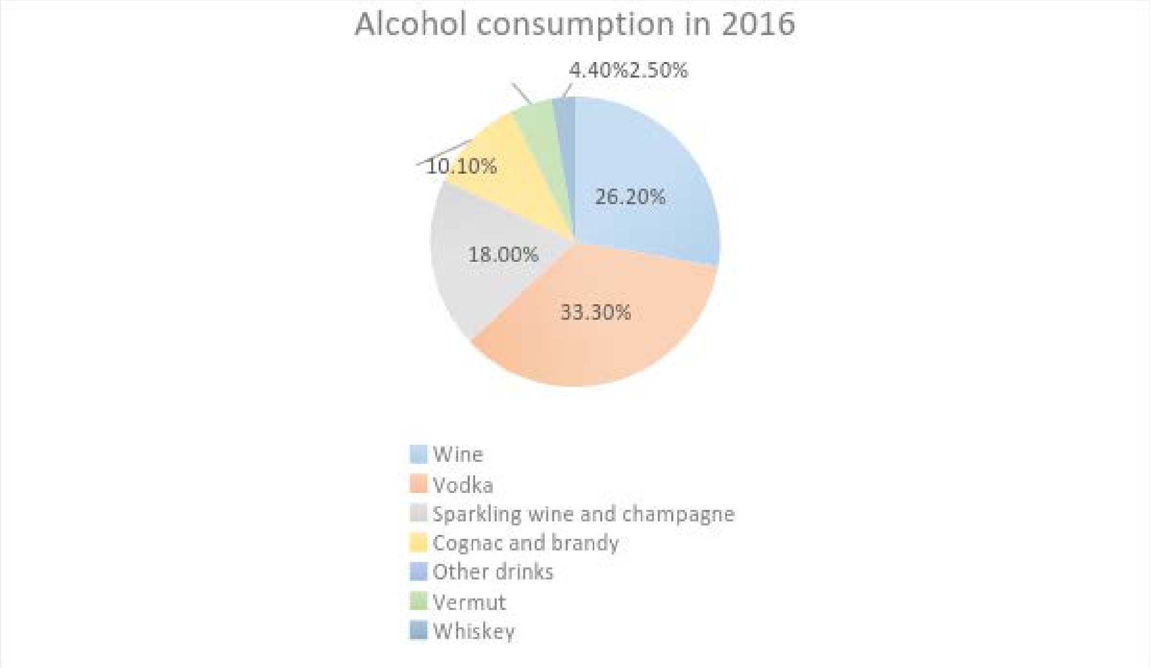
Since January 2015 to February 2016 the amount of wine produced has increased by 294.7 thousand of litres.

In the annual report of Energyprom experts believe that the increase in the production of alcoholic beverages is connected to their progress in the export markets.

4.2.2 Wine Consumption in Kazakhstan

Institute of Sales Activity Statistics (ISAS) researched the alcohol consumption in Kazakhstan. In 2016 wine had the second largest share, but in sum with sparkling wines it is consumed the most.

Figure 10 Alcohol consumption in Kazakhstan in 2016



Source: Institute of Sales Activity Statistics (ISAS), Own representation

Average domestic alcohol consumption in Kazakhstan is calculated as 44.2 mhl per year.

Nowadays European culture has a great development in Kazakhstan, so in case of alcohol people tend to buy more wine than any other strong alcohol. Also, demand on healthier drinks caused by the new trend in Kazakhstan- healthy lifestyle. With that factors amount of vine consumers is getting bigger and it leads to growth in vine sales. But mainly Wine market in Kazakhstan depends on the import than domestic productions, so it is needed to estimate whether it is perspective to develop winery in Kazakhstan.

4.2.3 Wine export and import

According to the data from KAZADATA most of the wines bought to the Kazakhstan Republic from foreign countries can be divided on 2 categories:

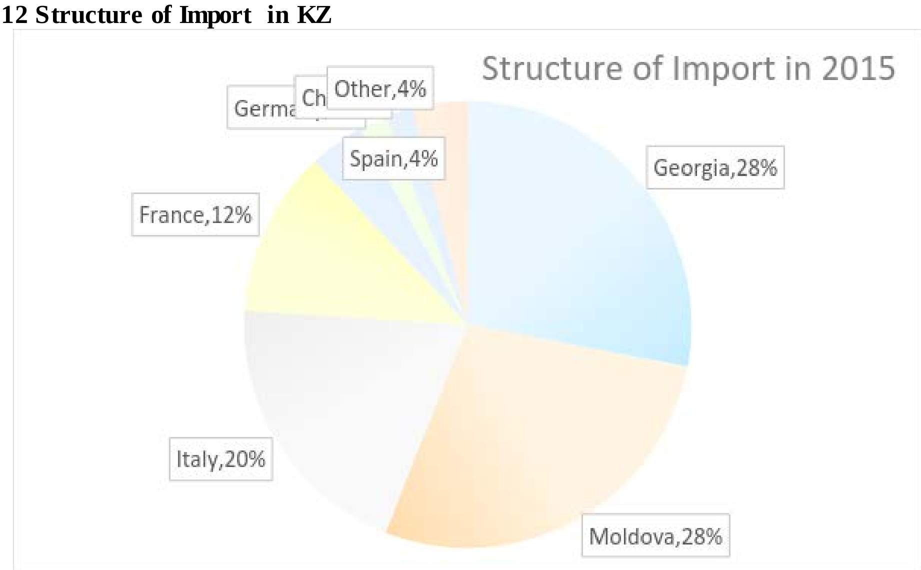
- Vermouth and other wine of fresh grapes flavored with plants or aromatic substances;
- Natural grape wines; including grape must.

Figure 11 Import and export of wine in KZ in thousands of EUR

Source: KAZDATA (Kazakh Statistical Office), Own representation

The import of wines in the Republic is characterized by growth - so that over a five year period, the volume of imported wine increased by 59%, but in the period from 2012 to 2014 the import growth rate is slowing. The growth depends on rising disposable incomes, which are encouraging consumers to buy more sophisticated and prestigious drinks. In 2015 the import decreased. But the volume of export is too low comparing with the import. In the last two years import has risen intensively.

Figure 12 Structure of Import in KZ



Source: KAZDATA (Kazakh Statistical Office), Own representation

As it was noted in the annual report prepared by KAZDATA the two main countries of Import are Georgia and Moldova because of the geographical factor and because the prices there are lower.

In the situation with Export the main country importer of Kazakh wine is China. The Chinese share is accounted to more than 90%. So the volume of export mainly increased because of Chinese import. This could be caused by the growing interest of wine in China in genereal and also by the fact that this country borders on Kazakhstan in the North-West.

4.2.4 Main competitors in the wine market

According to official data collected in the marketing business directory KAZDATA, there are 58 enterprises with the activity "production of wine from grapes" registered in Kazakhstan.

The biggest and most well-known winery in Kazakhstan is "Bacchus". Bacchus has its vineyards and wineries of primary winemaking in Almaty, Zhambyl and Shymkent regions. It produces wide range of wines- around 21 entitlements. According to the data from Bacchus annual report they produce from dry to port and vermut.

The winery which is known as "Issyk wine" is now renamed to "Issyk-Marcato". Its vineyards total area is 280 hectares, they are located in the foothills of the Trans-Ili Alatau, where different types of grape like "Pinot franc", "Saperavi", "Riesling", "Rkatsiteli". "Muscat" is grown.

Another new competitive winery is ArbaWine. Nowadays, on the Arbawine vineyards "Chardonnay", "Gewurztraminer", "Riesling", "Merlot", “French Pinot Noir” and "Malbec" are grown. One of the biggest achievement is Kazakhstan’s own vineyards- Kazakh Pinot Noir and Kazakh Riesling. This enterprise is also located in Almaty region.

All of the wineries on the territory of Kazakhstan have the new equipment purchased in Europe, so the wine is produced with the latest technologies.

On the example of ArbaWine the process of production will be described. The information about the process was reported by the owner of the winery- Zeinulla Khakimzhanov.

- Harvesting is usually starts during the last 10 days of August and the process completes in the middle of October. As is the case with all of our technological procedures, harvesting is conducted manually. There is usually high temperature and dry period during August and September in South Kazakhstan. Dryness from August to October plays to advantage, as it allows technologists to efficiently harvest the grapes (Z. Khakimzhanov, 2014).

- In order to produce a good wine, good equipment required. For the production Vinification Tanks, Presses, Filters, Pump, High-pressure Tanks, Cooling Systems are used.
- Maximum attention to the quality of our bottles, corks, decor and packaging materials. These items are purchased from European wine-makers. The long life of wine in a bottle can happen only when the bottle has the great quality, and sealed with a top-quality cork, which we acquire from the Portuguese company Amorin, one of the world's best producer.

Zeinulla Khakimzhanov also mentioned that one also important indicator of the progress of the enterprise is the cost of the final product. Cost is the monetary value of all expenses of the enterprise for the production and sale of products, mainly wine (Valuiko, 2001).

The process of price establishing and the factors that influence it were written in the previous part. The prices of Kazakh wine can be even more higher than in Europe because technology of wine producing is more expensive in Kazakhstan. Kazakhstan doesn't have own created equipment, so it is purchased from the other countries. And another also very important factor is that there is a deficit of personnel and specialist in these industry, so either local specialists will be payed a lot or foreign professional will come and also be payed the big amount.

4.3 Kazakh wine in the world

As it was shown in the previous part, Kazakhstan exports its wine in a small amount and the biggest share of it sell to China. So what doesn't allow Kazakh wine enter the world market?

One of the most important reason is the historical factor. European winemaking countries are known as the best producers all over the world for the long time, so the quality and taste of these wines are certified. Customers rather prefer to buy already known wines, than from unknown producers for the same price. Perhaps, winemakers from

Kazakhstan have weak marketing strategy and this industry is too young there, but even kazakh people do not buy local wines. The survey was conducted among 30 people from different countries and they were asked about which wine they would prefer for the same price: from Kazakhstan or from historically well-known producer?

As the example of wine bottle White wine Riesling was chosen. One bottle costs 16,5 EUR (price for such bottle from official site of local producing company) and it was assumed that for this price customers able to buy either Kazakh or Italian wine the same type. People was asked next questions:

1) Where are they from?
2) Their Gender
3) Their Age
4) Have they ever heard about any of Kazakh wines?
5) Have they tried it (in case of yes in question 4)?
6) Would you pay 16,5 EUR for the bottle of Kazakh wine?
7) Which wine would they buy for the 16,5 EUR?

The results of the survey provided below and explanation of author of thesis also included.

Table 7 Survey results 1

Gender	in %	Number of respondents
Male	23,3%	7
Female	76,7%	23

Table 8 Survey results 2

Age	in %	Number of respondents
18-25	70,0%	21
25-40	32,3%	7
40+	6,7%	2

The biggest part of respondents are young people who have wide range of knowledge about the modern world. Due to global network nowadays, people have access to information from different countries and there is a huge amount of possibilities to find out about Kazakh wine.

Table 9 Survey results 3

Countries	in %	Number of respondents
Kazakhstan	46,7%	14
Czech Republic	6,7%	2
Russia	16,7%	5
Ukraine	16,7%	5
Belarus	3,3%	1
Azerbaijan	3,3%	1
Kyrgyzstan	6,7%	2

As it is shown in the results most of people asked are from Kazakhstan, other two countries with big shares are Russia and Ukraine. Almost all countries are part of CIS (Commonwealth of Independent States) and the only country from the EU (European Union), it is Czech Republic.

Table 10 Survey results 4

Have you ever heard about kazakh wine	in %	Number of respondents
Yes	46,7%	14
No	53,3%	16

Less than 50% of respondents have heard about Kazakh Wine, but after analyse of results it was found that not only people from Kazakhstan heard about its wine. Another people who heard about it are from Ukraine (1), Russia (2), Kyrgyzstan (1) and Belarus (1). However, the biggest share of people heard about local wine, there was 5 kazakh respondents who didn't know about it.

Table 11 Survey results 5

If yes, have you tried it?	in %	Number of respondents
Yes	26,7%	8

Only 8 people of all respondents have tried it, and two of them were from Russia and Belarus. These respondents were asked whether they liked it or not and they described the wine as "it was really not bad " and "it was tasty as any other wine". Also all 8 respondents found quality and taste of the wine on surprisingly high level. Most of them have tried wine because someone else has feasted them. Only one person (from Kazakhstan) ordered wine in the restaurant by himself because of interest. But there is no constant consumers of Kazakh wine among them. Only 2 respondents have tried wine more than once.

Table 12 Survey results 6

Would you pay 16,5€ for the bottle of white wine produced in Kazakhstan?	in %	Number of respondents
Yes	46,7%	14
No	53,3%	16

Less than half are ready to buy bottle of wine for 16,5 EUR (this price is higher than the average price of Riesling in Kazakhstan). It is assumed that all of respondents are able to pay for wine by themselves.

Among the group which have tried local wine, only 5 would pay this price, the only respondent is from Belarus, other are Kazakhs. But there were people who would pay for it, even though they haven't tried it. This buyers are from Russia (1), Azerbaijan (1), Ukraine (2), Kazakhstan (5).

Table 13 Survey results 7

Would you choose the bottle of white wine from Kazakhstan or from Italy? Both wines cost the same price	in %	Nubmer or respondents
Italian	90%	27
Kazakh	10%	3

Only 3 people would prefer wine from Kazakhstan than the same type of wine produced in Italy. However, none of people who would buy Kazakh wine have tried it. None of consumers who have tried it wouldn't buy it instead of Italy produced bottle. It is not surprising that the majority people would like to buy bottle of Italian wine.

The full data from the survey responds was reported in the Appendix 2.

According to the results of the survey Kazakh wine is not well- known even inland: there is a part of the population with ability to pay, who have never heard about domestic wine. People from neighbour countries (Kyrgyzstan and Russia) also not well informed about any of Kazakh wine. But most of Kyrgyzs know Kazakh cognac. This can be an evidence of that inland produced wine is not ready to enter the world market because potential buyers afraid to buy unknown production and trust to certified producers.

4.4 Profitability

Here was made an assumption that expanding of the vineyard area would positively affect on the profit from the wine industry. According to the climate conditions the suitable lands for grape growing are in the south and they are already used for the growing of another agriculture.

Approximate area of vineyards in Kazakhstan is 14,8 thousands of hectares. It is known that the value of export have reached **3325 thousands of EUR**. If it would be assumed that the expanding of vineyards area would lead to the higher profit. It is possible to estimate replacing other agriculture with wine grapes. So there was made a calculations of whether it is profitable and rationate to replace already excisting sowings with the vineyard.

Kazakhstan is very popular by its wheat. Kazakh wheat has very good quality and used in production in many countries (Shestakova, 2015).

According to the data from KAZDATA the total area of wheat in Kazakhstan is 12430,8 thousands of ha. Only 11,4% of this square is situated in the South Kazakhstan (regions which are suitable for grape growing). 11,4% is 1417 thousand of ha. The value of exporting the wheat for the whole country is equal to 462,6 mln EUR, so approximately the revenue which is made in South regions is **52739 thousands of EUR**.

Comparing this two values it is easy to see that wheat production brings to Kazakhstan much more profit than grape growing. According to this, there is no reason to replace successful production of wheat with non-secure vineyards.

5 Conclusion

Summarizing all information above, analysis of the wine industry from the economical point of view showed that the interest of wine is growing nowadays, the production also icreases, but there are some changes in the leaders of the industry. The share of European producers still remains the biggest and most known, but there are also producers from the „New World“ who took their place in this market. The background of the future of the wine industry has shown that the wine predicted to be better quality, and also less strong,. The producers are advised to pay greater attention to the beneficial qualities. The main expectation is that cheap wine will become cheaper, the expensive ones more expensive.

As the conclusion about the situation in Kazakshtan, it is properly to say that wine industry there is too young and raw. Perhaps it is to early for the Kazakh wine to enter the Global market. Based on the result of the survey Kazakh wine is not competitive because it is easier to buy certified wine from the world-known producer than from the new unverified maker. Another reason why Kazakhstan's wine is not chosen by consumers is the price of it. Prices of the local wine are on the same level as the European producer's. For example, "New World's" wine has wide range of wine types and its prices are lower. This is why "New World" producers took their place in the global market and ih consumers heart. But for Kazakh wine, prices are established according to costs of wineries and they cannot be lower.

Possibly Kazakh manufactures has weak marketing strategy (this can be assumed also from results of the survey). Even young people from Kazakhstan and the neighbour countries are not informed about the existence of such wine.

In the practical part there was also assumed that vineyards are should be expanded. The model considered that another area took for the growing of another agriculture would be replaced with the vineyards. The calculation of profitability in this case showed that it is non-profitable to produce more grape insted of wheat.

But still the production of local wine and its export has increased in the last few years and it indicates that there is a potential of expantion of the wine industry. However the industry in Kazakhstan could be developed only in the long-term perspective and it can reach some height, but it will take a long time to it.

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7 Appendix

Appendix 1: The Bordeaux model

Bordeaux Wine Prices and the Weather

	Dependent variable logarithm of London auction prices for mature red Bordeaux wines		
Independent variable	*(1)*	*(2)*	*(3)*
Age of vintage	0.0354 (0.0137)	0.0238 (0.00717)	0.240 (0.00747)
Average temperature over growing season (April–September)		0.616 (0.0952)	0.608 (0.116)
Rain in August		–0.00386 (0.00081)	–0.00380 (0.000950)
Rain in the months preceding the vintage (October–March)		0.001173 (0.000482)	0.00115 (0.000505)
Average temperature in September			0.00765 (0.0565)
R-squared	0.212	0.828	0.828
Root mean squared error	0.575	0.287	0.293

The Bordeaux model is a cross-sectional model with the (natural logarithm of) price index of a Bordeaux wine portfolio as dependent variable and the wine's age and various weather data as independent variables. This table shows the results of three different variants. Column (1) reports the results when only age is used as explanatory variable, and columns (2) and (3) also include weather variables.

Source: Ashenfelter (2008). All regressions are of the (natural logarithm of) the price of different vintages of a portfolio of Bordeaux chateau wines on climate variables, using as data the vintages of 1952–1980, excluding the 1954 and 1956 vintages, which are now rarely sold; all regressions contain an intercept, which is not reported. Standard errors are in parentheses.

Appendix 2: The results of the survey

Number of repondent/ Question	Gender	Age	Which country are you from	Have you ever heard about kazakh wine	If yes, have you tried it	Would you pay 16,5 EUR for the bottle of wine produced in Kazakhstan	Would you choose the bottle of white wine from Kz of from Italy? (both bottles are the same price)
1	F	25-40	Kazakhstan	Yes		Yes	Italian
2	F	18-25	Kazakhstan	Yes	Yes	No	Kazakh
3	F	18-25	Ukraine	Yes		Yes	Italian
4	F	25-40	Russia	Yes	Yes	No	Italian
5	M	18-25	Russia	Yes		Yes	Italian
6	M	18-25	Kyrgyzstan	No		No	Italian
7	F	18-25	Belarus	Yes	Yes	Yes	Italian
8	M	18-25	Kazakhstan	No		No	Italian
9	F	18-25	Kazakhstan	No		Yes	Italian
10	F	18-25	Kazakhstan	No		Yes	Italian
11	F	18-25	Kazakhstan	Yes	Yes	Yes	Italian
12	M	25-40	Kyrgyzstan	Yes		No	Italian
13	F	25-40	Kazakhstan	Yes		No	Italian
14	M	40+	Russia	No		No	Kazakh
15	F	18-25	Kazakhstan	No		Yes	Italian
16	F	18-25	Ukraine	No		Yes	Italian
17	F	25-40	Kazakhstan	Yes		No	Italian
18	F	18-25	Czech Republic	No		No	Italian
19	F	18-25	Kazakhstan	Yes	Yes	Yes	Italian
20	F	18-25	Ukraine	No		No	Italian
21	M	18-25	Azerbaijan	No		Yes	Italian
22	F	18-25	Russia	No		No	Italian
23	F	18-25	Kazakhstan	Yes	Yes	No	Kazakh
24	F	18-25	Kazakhstan	Yes	Yes	Yes	Italian
25	F	25-40	Ukraine	No		No	Italian
26	F	18-25	Kazakhstan	No		Yes	Italian
27	F	18-25	Ukraine	No		No	Italian
28	F	18-25	Russia	No		No	Italian
29	F	25-40	Kazakhstan	Yes	Yes	Yes	Italian
30	M	40+	Czech Republic	No		No	Italian

N=30

Own representation

Appendix 3: White wine Riesling

Source: Official website of Arbawine winery.

Producer:Arba Wine

Wine name: Ak Arba Kazakh Riesling

Vintage: 2013

Sub-region: Assa Valley Almaty

Region: Almaty

Country: Kazakhstan

Award: Commended

Colour: White

Style: Still - Dry (below 5 g/L residual sugar)

Bottle size: 75cl

Closure: Natural Cork

Alcohol level: 12.8%

Grape composition: 100% Riesling

Tasting notes: Classic riesling nose of floral honeysuckle, intense mineral and slight petrol character, tense cool climate style.