ORGANIC PRODUCTION AS A KEY FOR SUSTAINABLE DEVELOPMENT IN WINE INDUSTRY IN THE CZECH REPUBLIC

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AThe paper describes the environment sector of organic winery in the Czech Republic and finds opportunities for Czech winegrowers to sustain the industry and contribute to its future development. Organic viticulture has changed dramatically. Organically farmed vineyards formed 4.9% share of the total area of vineyards in the Czech Republic in 2011 and 6.1% in 2012. Czech organic wines have much to offer to consumers. They have received many prestigious awards at international competitions; however the foreknowledge of customers about such wines is very low as these are drunk mostly by regular consumers. That is why a change should be made. The popularity of organic wine is expected to grow mainly in the foreign markets. Although the Czech organic wines have already found their consumers, the need for additional marketing activities that will result in expansion of its portfolio of consumers, are required.

KEYWORDS: organic, wine, viticulture, industry analysis

JELKÓD: M1, M11, M 13, M14

1. INTRODUCTION

Viticulture is a field that has experienced a big boom in the last few years. The popularity of wine is increasing worldwide, therefore it is not surprising there has been an increasing number of Czech consumers, too. Growing consumption, especially of good wines, goes hand in hand with the increasing interest in grapes growing and wine making. In the European continent the cult of wine began to spread 3 thousand years ago.

When it comes to organic farming, from the very modest beginnings in the first half of the last century, organic farming has grown dramatically in importance and influence worldwide. A few statistics tell part of the story: from almost negligible levels until the 1980s, the number of organic farms worldwide has grown to an estimated 623 000 with some 31.5 million ha (data from 2007) managed organically (LOCKERETZ, 2007). Worldwide sales of organic products reached some US$28 billion in 2004 (IFOAM, 2006). Organic farming is based on perfect knowledge of the needs of plants, animals and landscapes. The aim of organic farmer's effort is to produce in a sustainable way which promotes diversity and sustainability of the cultural landscape. Organic viticulture as the branch has its origins in the fifties of the last century in Switzerland and Germany; however, some argue that it originated thousands of years ago when farmers did not use synthetic chemicals. Organic farming has been developing in the Czech Republic since 1990 when according to the principles of organic agriculture only three farms complied. Modern viticulture represents the mutual coexistence of winegrower with nature. Only by respecting natural laws that affect the vines the primary goals - i. e. the production of quality grapes can be achieved (THE WORLD OF ORGANIC AGRICULTURE, 2006; TEARA STORY, 2009).

The aim of this paper is to chart the environment sector of organic winery in the Czech Republic and find opportunities for Czech winegrowers how to sustain the industry and contribute to its future development.

2. Material and Method

Results of this paper are the outcomes of a deeper and broader research. To get an overview of the situation in the industry, Grove model which is an extended version of well-known Porter´s model of competitive forces was applied. This selected part of the research is also presented in this paper. To get deeper knowledge about the current situation, it is necessary to do the macro environmental analysis (PESTE) and observe all the factors existing in the branch. The outcomes and conclusions formulated in the Grove´s model result from the experience and knowledge gained from these all analyses. Due to the extent of this paper, the results of PESTE analysis will be shortly interpreted in the SCOPE model. The main results in the area of competitors, buyers, suppliers, possibility of fundamental change in the way of business and strength of general partners were deeper elaborated in this paper. As a primary source of the data statistics, annual reports and scientific research and papers were used. The results were supported by the primary research in the form of qualitative research where 312 respondents – wine consumers – were interviewed, also personal interviews with wine producers were conducted.

3. Results

3.1. Organic Winemaking Worldwide

To describe and show the statistics of the organic grapes production (organic winemaking), it is good to start with the presentation of the total area of vineyards worldwide, just to be able to better imagine what is the share of organic grapes production to non-organic one. The total acreage under vines (the world’s total vineyard surface area) has been decreasing substantially. *Figure 1 s*hows the stable decline in the area covered by vineyards. From the peak of 7.9 million hectares in 2003 the acreage has shrunk to just about 7.5 million hectares – down by 5%.

However, the changes in the size of vineyard areas depend on their location worldwide. European share of the world’s vineyards has declined from 62.5% in total in 2000 to 56% vineyard surface in 2012. All other regions have been increasing their share, as well as their acreage, most notably Asia with 22.7% of the world’s vineyards. The vineyard acreage in China has ballooned by 90%, from 300 000 hectares in 2000 to 570 000 hectares in 2012 (KARLSSON, 2013a). Traditional wine producing countries of Europe face several challenges: globalization has appeared in the winemaking sector as well as in other sectors, and when we analyze the global wine markets we can recognize the new fads and trends that ensue (DUNAY and STORCZ, 2014a, 2014b). New World wine styles are subjects to these trends. Their production is mostly focused on modern technology and efficiency, the wines are made to be consumed immediately. There is only a little attention to aging the wine. The market share of the New World wines has been increasing and their popularity has been steadily growing (STORCZ and ILLÉS, 2014).

When moving to the organic grapes, over 280 000 hectares of organic grapes are grown which constitutes approximately 4% of the world's grape growing area. *Figure 2* shows totally opposite trend of the one presented in the Figure 1. While the total area of produced grapes has been rapidly shrinking, the area of organic vineyards has been boldly increasing. It is necessary to mention that not all of the grape area is used for winemaking. The production of table grapes and raisins is important in many countries, too, e.g. in Turkey. However, the winemaking areas are still the most significant ones. The countries with the largest organic areas are as follows: Spain, France, and Italy.

Since 2004, when data on land use and crops were collected for the first time, the organic grape area has more than tripled (increased by 225%). However, some of the increase must be attributed to continuous increase in availability of the crop data. The available data indicate that a large part of the total grape area (30%) is in conversion. If this is indicative, a considerable increase in supply of organic grapes may be expected (WILLER and LERNOUD, 2014).

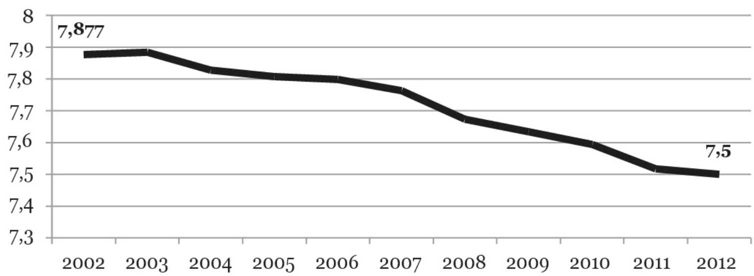

FIG. 1

Area Covered by Vineyards Worldwide 2002-2012

Source: Own elaboration based on OIV (2014)

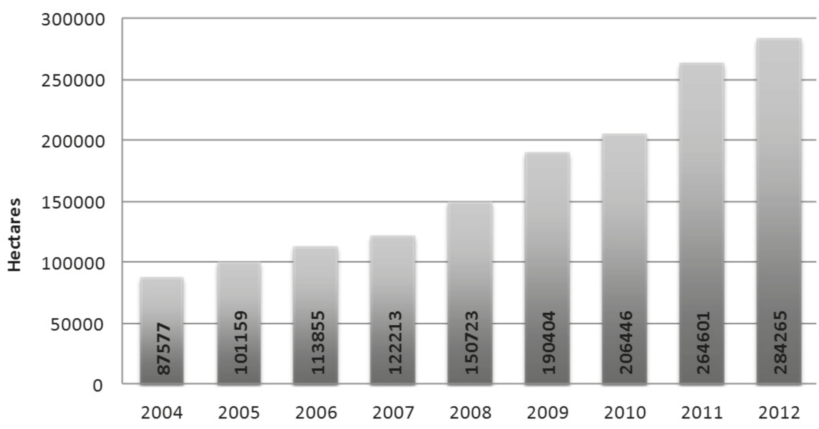

FIG. 2

Organic Grape Area Worldwide 2004-2012

Source: Own elaboration based on Willer and Lernoud (2014)

3.2. Grove´s Model of Industry Environment

3.2.1. Strength of Existing Competitors

The concentration of competitors in the Czech Republic in the field of organic viticulture is relatively small as there were only 80 entities registered as organic wine growers in 2010. The interest of Czech wine consumers in organic wine is small. Czech wine growers must find a sales area outside of the Czech Republic in countries where demand on organic wine exceeds supply.

The main competitors in the Czech Republic are especially small and medium-sized enterprises that are engaged in production of organic wines only marginally. The problem with entering the market can also be complicated and time-consuming endeavour.

Among the most powerful organic wine growing entities we have to mention Ing. Petr Marcinčák winery, that farms on 104 hectares of vineyards and Miloš Michlovský who conquered the large market chains in the last several months. Most export oriented company is Wine cellars Čejkovice-Templars which exports its wine also to foreign countries such as the USA. Wine cellars Čejkovice have very strong position among existing competitors especially because they are very accessible to consumers. Their organic wine can be found in the large supermarkets and store chains. It is clearly visible and attracts attention with its big bio label. As the results from Marketing & Social Research (made from Winery fund in 2008) demonstrate, people usually purchase wine in large store chains. Small organic wine producers' products are difficult to buy, they can be only found in selected wineries or are accessible through online shops. Very good solution is applied by Josef Abrle who supplies organic wine to selected shops with organic food in shopping galleries so it is also very accessible to public. As already mentioned before, Miloš Michlovský has started to supply to large store chains such as Lidl. But he does not mark his wines as organic yet (PRO-BIO, 2012; VÍNA Z MORAVY VÍNA Z ČECH, 2012).

3.2.2. Strength of Potential Competitors

By potential competitors winemakers are primarily meant who produce in an integrated system that provides a way of farming, whose main aim is to ensure sustainable development, which allows preserving the natural functions of agro ecosystem and other ecosystems. There is only a short step to growing wines in organic way, yet the transition to growing organic wine takes at least three years. Due to the large number of growers producing the integrated production, quantity of potential competitors is relatively high.

On the other side, there are many barriers for potential competitors to enter the market with organic wines. For the greatest barrier to entry into production of organic food is considered increased administration (certification, registration, etc.), decreasing demand for organic foods in the overall economic situation and financial crisis. Administration overload is a significant cost to the companies - money and time wise. It is also necessary to mention that more employees are needed when it comes organic farming (when compared to the conventional system). Most of the work is done by hands so temporary workers and seasonal help are being used very often. Among other barriers (when entering into the organic wine market) there is a three to five-year transition after registration. Although the winemaker uses all the principles of growing in an organic way he can only be granted certification after a long period of time (CSO).

3.2.3. Strength of Buyers

There are two types of customers. First ones are wholesalers and the other type of customer is the final consumer who can buy directly from the winemaker if that is possible.

The production of organic wine growers can be often obtained in selected specialized shops (taverns, wine shops), on the Internet as well as in specialized organic food stores or in private wine cellars. The offer of organic wine, however, significantly expanded into restaurants as the wine is more often put on its wine list.

Also both Czech and foreign organic wines are more readily available via e-shops. In supermarkets and large retail chains, there are Czech organic wines mainly produced by large growers such as Wine Cellars Čejkovice-Templars. Smaller winemakers often do not have the capacity to supply to supermarkets that try to buy at the lowest possible price. Winemakers themselves also believe that their brand and reputation would fall if they supplied to the supermarkets. On one hand, it is understandable, on the other the organic wine could be brought closer to its customers through the supermarkets.

As for the specialized shops, each chooses a different strategy to attract customers to buy organic wine. It is unfortunately the price that usually appeals to customers, and for that reason, shops try to negotiate the lowest possible purchase price from suppliers. The organic wines operate in a slightly different market. Some customers prefer price than quality of the wine and therefore buy the table wines packed in boxes. These consumers prefer more commercial chain stores than specialized winery. On the other hand, consumers who buy wine for its taste and quality would prefer more specialized shops. There is also the option to purchase draft wines at affordable prices. However, draft organic wine are encountered only rarely.

According to the market research dealing with organic food (which was carried out by the Food Chamber of the Czech Republic in 2010), it was shown that there is a strong bargaining position of retail chains. Several manufacturers in the survey complained about the fees of chains that are charged, their unwillingness to negotiate and the fact that the retailers have high margins and bad product placement (PRO-BIO, 2012; ZEMĚDĚLSTVÍ, 2011; Focus, marketing & social research. Výzkum: Trh s vínem v ČR 2008, 2009).

The results also showed that only 20.5 % of respondents were familiar with organic products. When it comes to the purchase of organic products, the majority of interviewees (54.7%) do not shop for organic products at all. Another research done exclusively among the wine consumers showed that out of 312 respondents who consume conventional wine, 23.4 % have consumed organic wine at least once in their life; 19.6% has not consumed organic wine yet, but they at least know that organic wine exists. The reasons why consumers drink organic wine are mentioned in the *Figure 3*.

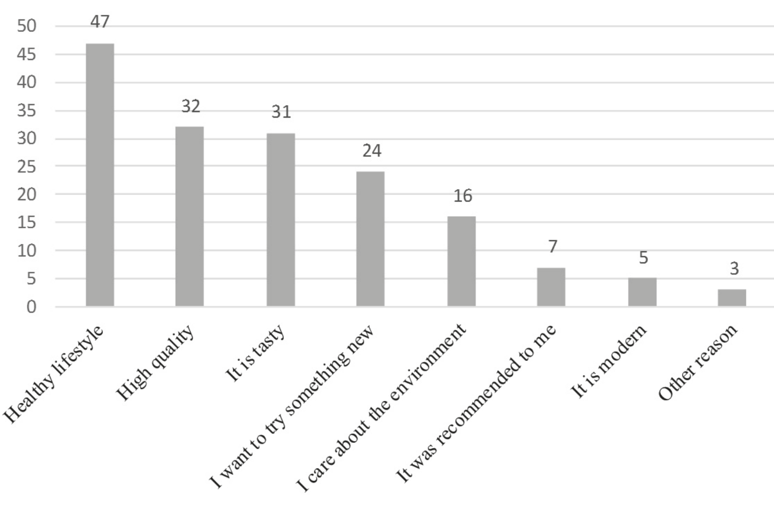

FIG. 3

Reasons Why Consumers Drink Organic Wine

Source: Own research

3.2.4. Strength of Suppliers

The suppliers could be divided into two main groups. First those suppliers who supply to the branch of viticulture and the second group is formed by suppliers to the branch of winery.

Among the suppliers in the field of viticulture are companies that offer products necessary for working and farming in the vineyard or for achieving quality wine. These include mechanical equipment, supporting structures, vine seedlings. These products are essential for working in viticulture and their position is strengthened by the fact that they cannot be replaced by any substitutes. Suppliers also exploit the fact that the wine branch is not their only customer.

The second group includes suppliers of products, which are a direct input into the production process as preparations to wine, wine barrels, pumps, containers, labels, closures, etc. Bargaining power of suppliers is generally higher, but you can find the differences between small suppliers, products for wine and small material suppliers, who have very little bargaining power. By contrast, packaging and labelling achieved through concentration and importance to the industry higher influence. Suppliers of organic wine grapes also exist, although most of winegrowers are individuals who produce only from their own grown grapes (FORBES and COHEN, 2009; NZ HERALD, 2011).

3.2.5. Prospects for Business Changes

There is a very little possibility of change in the process and production of organic wine. Procedures are always the same. They may differ in the environmental input and the use of other methods of cultivation. The change in business practices could be, perhaps, possible in the field of marketing. There are greater opportunities for promotion of organic wine delivery to specialized shops and proactive approach to customers.

3.2.6. Strength of the General Partner

The general partner is explained as a company that we depend on or vice versa. In case of wine industry, there is no company dependent on any particular company, which would have to sell some integral part of impact. As already mentioned, the company that produces organic wine is most dependent on the companies that supply integral components necessary for production, the associated integral part of production, but none of these companies constitute a monopoly.

3.3. SCOPE Model for Czech Organic Wine Industry

SITUATION

Opportunities of Organic Winemaking

Political and legal factors:

Increasing subsidies – new possibilities of gaining financial support

- Political stability (both Czech Republic and EU)
- EU enlargement – opening the market to new customers / new segments
- Advantageous location for export to other countries
- Organic labelling – assures the quality and origin of the product. Strict EU laws have to be followed

Economic factors:

Decreasing interest in beer (lower consumption per capita)

- Growth of the average monthly wage in total

Social factors:

Long tradition of winemaking in the Czech Republic

- Aging of the population – more people can drink alcoholic beverages

Technological factors:

New technologies – easier and cheaper production

- New distribution channels
- Direct sales are getting popular

Ecological factors:
Good weather conditions
- Good agricultural conditions (soil, vegetation, etc.)
- Environment friendly packaging

Threats of Organic Winemaking
Political and legal factors:
Unorganized sector
- New stricter EU laws
- Trade restrictions and higher tariffs on wine
- Higher taxation on wine

Economic factors:
Insufficient market data (leads to bad future estimations)
- Lower wages in the Czech Republic compared to the other EU countries (low interest to work for these companies leading to worse quality of staff)
- The share of organic food in total consumption is approximately only 1% in the long term in the Czech Republic

Social factors:
Price sensitivity of customers
- Unwillingness of customers to learn more about organic wine
- Low purchasing power of the population

Technological factors:
New technologies – expensive and difficult to learn
- Innovations – losing the advantage of know-how

Ecological factors:
Higher possibility to lose the crop (due to various diseases)
- Unwillingness to protect the environment („it is not going to help attitude")

CORE COMPETENCIES

Environment friendliness:
No harmful chemicals are used
- Production does not pollute the air, water and soil
- Packed in environment friendly containers

„Truer" and better wines.
Healthy context (compared to conventional wine):
More vitamins and minerals – vitamin C, iron, magnesium and less nitrates
- Lower sulphur levels – half the normal amount of sulphur than conventional wine
- More antioxidants – lowering cholesterol, prevention of cancer etc.

OBSTACLES

Political and legal factors:
Unexpected controls from certification bodies
- Weak communication and cooperation (government, farmers, local authorities, universities, research centers)

Economic factors:
Higher prices of organic wines
- Increasing competition and lower prices of competitors
- Cheaper organic wine from abroad
- Economic crisis – buying cheaper products
- Higher number of employees needed than in conventional wine production

Social factors:
No information about organic wine given to customers

Technological factors:
Transition period – long process of transforming to organic farming
- Poor advertising
- Deceptive labelling of organic products

Ecological factors:
Bad weather conditions
- Low ecological awareness

PROSPECTS

The business may create additional sales and/or profits by taking advantage of its core competencies. These are as follows:
- Utilization of subsidies
- Usage of modern technologies
- Cooperation with specialized web-portals (Ekovin.cz, Pro-Bio)
- Improving cooperation with retailers
- Increasing customer awareness
- Innovating packaging
- Cooperation with distribution channels
- Feedback from customers

- Getting involved in social activities
- Attracting new segments

EXPECTATIONS

Anticipated developments and future scenarios are as follows:
Political and legal factors:
Increasing export to foreign countries
Economic factors:
Enlargement of the vineyards as well as of the wine production
- Increasing consumption of wine per capita
- Creation of stable group of organic wine producers in the Czech Republic (greater capacity and number of processors)

Social factors:
Increasing interest in luxury and quality goods
- Growing interest in getting to know the winegrower (at least the winegrower's history)

Technological factors:
Application of experience from abroad
- Innovation of web pages
- Expansion of the web sales (save the time)
- Advertising through Internet search engines
- Better cooperation with the press

Ecological factors:
Higher consumption of natural and healthy products
- Increased interest in environment friendliness (animal welfare)
- Increased interest in healthy lifestyle

4. Conclusions and Suggestions

Organic viticulture has gone through important changes when it came to European legislation. After many years, the Standing Committee on Organic farming has agreed on new rules for labelling bottles containing wine from organically grown grapes. From the harvest in 2012, growers have been allowed to mark a bottle as "organic wine" after having met all the conditions in the organic cultivation system. Currently, the bottle also has to show the EU organic label and the EU organic certification ID. Further, the European Commission has appointed 30 certification agencies worldwide that started importing wines into the territory of the European Union. Among these 30 agencies is the BioGro, New Zealand's leading organic certifier (BIOGRO, 2011; EC.EUROPA.EU, 2012).

Although Czech Republic is not one of the largest organic wine producing countries, it is above the world average. Organically farmed vineyards formed 4.9% share of the total area of vineyards in the Czech Republic in 2011 and 6.1% in 2012. There are no current statistics regarding the consumption of organic wine per person, because as already mentioned, there was no EU legislation on organic wine until the harvest in 2012. Therefore, the total consumption indicated both conventionally grown and organically grown wines. In recent years, common consumption has increased each year in the Czech Republic. In 2012, the wine consumption reached 19.8 liters per capita and it was estimated that it would increase by up to 20 liters per person in the following year (HRABALOVÁ, 2011; WILLER, YUSSEFI-MENZLER and SORENSEN, 2008; TEARA STORY, 2009). Despite this estimation it declined slightly. In 2011, based on the Fund of wine-makers' estimation, the wine consumption exceeded production 5.5 times, so the Czech Republic was unable to satisfy the domestic demand and so large volume of wines was imported. Imported wines account for more than 60% of the total supply of wine in the Czech Republic today.

The traditional viticulture in the Czech Republic has had a long history and the market has been dominated by small to medium sized enterprises engaged in production of organic wines. Many growers grow in the total area of up to 5 hectares and wines are sold at the location of its production and selected wine shops. In supermarkets, where the bargaining power of subscribers is large, Czech organic wine can be encountered only rarely.

There are quite a few challenges when transitioning to organic farming from the conventional one. According to the Statistical Report ÚZEI from 2009, the biggest barriers are seen in administration and higher operation costs when compared to conventional farming (INSTITUTE OF AGRICULTURAL ECONOMICS AND INFORMATION).

The organic viticulture industry has been undergoing major changes recently and positive developmental trends are expected in the future. The Czech Republic's demand for organic wine rather stagnated last year. So it is necessary to look for new opportunities worldwide. A Vinexpo study by the International Wine and Spirits Record (ISWR) showed that even though China was only the eighth largest consumer of wine in the world, Chinese wine consumption was projected to rise significantly in the next few years. Overall wine consumption in Asia jumped by a quarter in 2015. Asia is now arguably the priority market for driving global growth (VINEXPO, 2012). There is no doubt that customers have increasingly become discriminating about what they choose to drink. It is very important that they will be provided with what they expect from organic wine: the quality and enjoyment. Czech wines have much to offer to its consumers. Although mostly smaller winemakers are concerned with the organic cultivation, the reason for transitioning to organic production was the belief that the organic system was better than the conventional one. They grow excellent wines that have received many prestigious awards at international competitions. Although the Czech organic wines have already found their consumers, the need for additional marketing activities that will result in expansion of its portfolio of consumers are required.

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