EVALUATING THE EFFICIENCY OF WINERIES IN UKRAINE: A THREE-CRITERIA APPROACH

Natalia O. Lazareva, PhD Student
Department of Business Administration and Corporate Security
International Humanitarian University, Ukraine

Introduction

Winemaking is the production of wine, starting from the selection of the grapes or other produce and ending with bottling of finished wine. The science of wine and winemaking is known as oenology (Lorenzo et al., 2005). A person who makes wine is traditionally called a winemaker. Traditionally known as a vintner, a winemaker is a person engaged in making wine. They are generally employed by wineries or wine companies.

There are all necessary conditions for the development of wine-making in Ukraine: the land, the climate, human resources and technologies. Viticulture and winemaking here unite the various forms of ownership, organizational and legal statuses, sectoral and geographical origin in an integrated system of production of the final product – the wine. This system covers all stages of the value chain – from growing raw materials, development of innovations and training of relevant personnel to the production and sale of the final product, servicing its customers.

Despite of some difficulties of doing business and the impact of other negative factors that take place in the country, the wine industry in Ukraine is developing. This concerns primarily the production of wine materials for champagne and sparkling wines.

There are many studies of various aspects of winemaking in different countries. Some of them explore the consumer properties of wine, e.g. tastes and aromas (Hanf, 2014; Rinaldo et al., 2014). The others examine quantitative and qualitative changes in consumption and production of wine in different countries, e.g. Italy (Barisan et al., 2015), Spain (Gil et al., 2015), Germany (Hanf et al., 2013), Armenia (Hanf and Marquardt, 2012) or Australia (Orr, 1997). However, only a few of them address issues associated to Ukrainian wine industry (Oleynik, 2012; Samofatova and Gerus, 2012). Still none of them identifies the efficiency of wineries in Ukraine.

Therefore, to identify the level of efficiency of wine industry it is necessary to make the appropriate evaluation, the results of which are set out in this study.

Methodology

While wine industry enterprises (wineries) of Ukraine work in a competitive environment, to evaluate the efficiency of their work we used three-criteria methodical approach for evaluating the efficiency of the company that operates in a competitive environment, the essence of which is described in Lazareva (2015).

According to this methodical approach we calculated three key performance indicators for each company, including:

1) an indicator of structural efficiency;
2) annual productivity index as an indicator summarizing the dynamic efficiency of enterprises;
3) indicator of relative economic efficiency that is performed using the method
of Data Envelopment Analysis (see Goncharuk, 2013) and DEAFrontier software.

**The Data**

The sample includes the data on activity of 11 Ukrainian wine companies, which total volume of output in 2012-2013 has made over 50% of all wine production of Ukraine.

All companies of the sample are small and medium enterprises, which is proper for the Ukrainian wine business in general. Five of them are located in the Odessa region, two – in the Mykolaiv region and the Crimea and by one – in Kyiv and Donetsk regions.

Considering that results of DEA are sensitive to errors in initial data, the annual reports of wine companies for 2012 and 2013, reliability of which is confirmed by the auditor conclusions, were used as a source of information.

**The Results**

The results of three-criteria evaluating the efficiency of the wineries in Ukraine are shown at Figure 1.

![Figure 1. Three-Criteria Evaluating the Efficiency of Ukrainian Wineries in 2012-2013](image)

Comparing the wineries by three efficiency criteria, we can testify that none of them is a single leader. However, there are companies that are at the top of the ranking for all indicators, including:

- Crimean W&C Plant "Bakhchisaray" is the second by structural and relative efficiencies and the third by dynamic efficiency;
- Feodosiya C&W Plant is the second by dynamic efficiency and the fourth by relative efficiency and the fifth by a structural efficiency.

However, there are wine companies that by one criteria are the leaders, but by the other criteria still far behind its competitors, in particular:
Shabo is a leader by relative economic efficiency, but by dynamic and structural criteria it is only the sixth in a sample;
Odesavinprom has the best structural efficiency, but by relative efficiency it is the seventh and by dynamic efficiency it is only the eighth in a sample;
Bolgrad Winery is a leader by dynamic efficiency, but it is the looser by the other criteria.
Among the wineries Vynogradar and Limanskii are the most losers for all criteria. These wineries are the smallest in the sample by the number of employees (less than 100 people). This may indicate the ineffectiveness of small business in the Ukrainian wine industry.
For identifying the key performance factors, the nature and magnitude of their impact on the efficiency of Ukrainian wineries it is necessary to analyse their efficiency. The results of such analysis should be made appropriate management decisions to address the weaknesses that hamper the growth of efficiency. Benchmarking (Goncharuk et al., 2015) and other performance management methods (Alsharf, 2015) can be useful to reach efficiency growth.

Conclusions
Using three-criteria approach the author identified the level of efficiency of the wineries in Ukraine. The results of study enable to conclude that:
(a) Crimean wineries are at the top of the ranking for all indicators;
(b) there is not a single leader by efficiency in wine industry of Ukraine;
(c) there is ineffectiveness of small business in the Ukrainian wine industry.
The future research will be devoted to identifying the key performance factors for Ukrainian wineries and finding the appropriate management methods to reach their efficiency growth.

References
EVALUATING THE EFFICIENCY OF WINERIES IN UKRAINE: A THREE-CRITERIA APPROACH
Natalia O. Lazareva

Abstract
The author identified the level of efficiency of the wineries in Ukraine using three-criteria approach. The results of study enable to conclude that: Crimean wineries are at the top of the ranking for all efficiency indicators; there is not a single leader by efficiency in wine industry of Ukraine; there is ineffectiveness of small business in the Ukrainian wine industry.

Keywords: efficiency, evaluation, productivity, ranking, winery, Ukraine