

EVOLUTION AND PERFORMANCE ANALYSIS FOR WINE ENTITIES IN ROMANIA

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ABSTRACT: The article aims to highlight the evolution of wine entities in Romania and their performance. Given the state of research conducted in the literature on performance measurement and analysis of the entities from wine sector and the achievements of specialists, the authors of this article demonstrates the importance of using the method of variable costs in terms of its specific indicators and making any decisions based on information provided by them. The article ends with the authors' conclusions about the benefits and importance of using direct-costing method in monitoring and measurement of performance in wine entities in Romania.

Key words: Performance, fixed expenses, variable expenses, decision, direct-costing

JEL Codes: M21, M41

Introduction

Wine industry is one of the economic sectors experienced a continuous development in the contemporary period, with an important role in globalization. Currently the wine industry not only faces the challenges of the economic crisis but also the market changes, consumer behavior and technology trends. Wine industry has proven to be a highly complex sector where the changes succeed quickly and in such circumstances successful business in the wine market depends largely on the quality and diversity of the range of products produced.

In normal economy conditions, the user is the central pillar of all economic activities that converge towards meeting its fullest desires. Because of the contemporary economic development, the wine sector is increasing consistently, diversification is dictated by constant changes in population structure requirements related needs with the level of civilization and culture.

Thus, in a dynamic market, governed by the laws of competition, knowledge and monitoring costs is becoming imperative. Researchers in the field (Nistor, 2011) consider that the economic entities register an increase of demand for accounting information, which is managed by the information system. Management accounting and cost calculation in the wine industry is a challenge for managers from the entities in this sector, and it is in our opinion a promoter of success and market strength. Approaches regarding management accounting and cost calculation in the wine industry in Romania are very few. International literature is more generous regarding this topic. Thus, in a context of economic difficulties and results decreasing, it is important for the researchers in the field of accounting to address with more responsibility the issue of cost calculation in wine industry, making a motivational approach for knowing the benefits it produces the implementation of an information system of costs.

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Evolution of wine industry in Romania

In recent years the turnover of wine producers in Romania increased while profits declined moderately. Wine market declined in 2008-2009 period at a time when the Romanian producers had gone to complete significant investment, both in production and in extensive marketing campaigns. During the years 2009 and 2010 there were no increases as in previous years and the year 2011 wasn't regarded with great optimism by local producers. Any wine market growth is due to consumers that switched from one producer to another migrating to wines from areas "medium high" and "low".

Global crisis has greatly affected local producers of wine. Although they developed extensive investment programs, the crisis made so that access to bank loans for further investment will be limited. Also wine sales volume declined and consumers have changed their preferences regarding products in the field. All these factors have led to a sharp reduction of the wine market.

In year 2009 a part of local producers have completed extensive investment in the wine sector having as a target the entry on new markets. Given the business situation during 2004-2008 period when growth from year to year was more than 10% year 2009 did not offer the premises of significant increases. A number of manufacturers have made increases but these were moderate. During the year 2010 wine producers in Romania have developed programs to stimulate wine consumption by increasing marketing budgets and increasing the market crediting programs. Fight with imported wines that have entered the market mainly due to their low price was a real challenge for wine producers in Romania. Due to skepticism regarding future wine market the main objective of local producers for the year 2009 was to limit the possible decrease of market shares. They largely succeeded to record slight increases in terms of turnover but profit share decreased significantly.

Currently five major wine producers dominate the market in Romania (Murfatlar, Jidvei, Cotnari, Vincon and Tohani) having a combined market share of almost 70% in 2010. The remaining 30% is divided among other local producers and producers from abroad. In Figure 1 we present a detailed picture regarding market shares of the major producers in the local market. We can see that Murfatlar is by far the largest wine producer in Romania with a market share of 28 % followed by Jidvei with 14% and Cotnari with 13%.

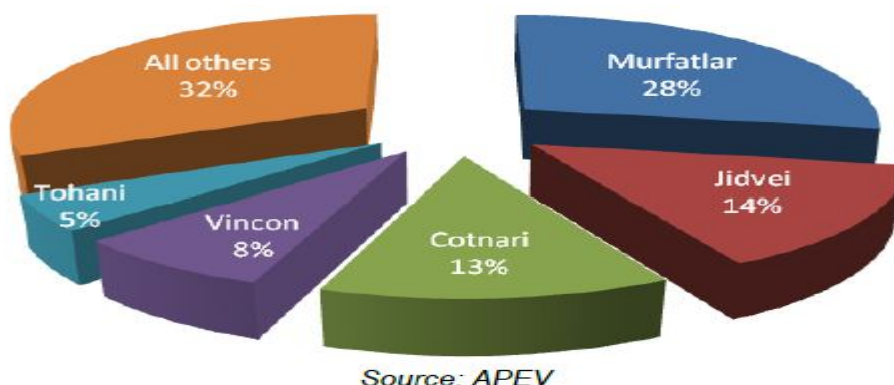


Figure no. 1.-The main wine producers in the local market, 2010 (%)

Even if Romania is among the top ten countries in the world in terms of area of vine cultivated, in terms of wine exports, the country occupies only 32th place worldwide. According to data provided by the International Organization of Vine and Wine (OIV), Romania was exceeded by all States in the neighborhood (Moldova, Bulgaria, Hungary and Serbia) in terms of wine exports. Despite the fact that Romania is well positioned in terms of cultivated areas of vines, its revenues from exports of wine are well below expectations. Wine exports are dominated by

countries like France, Italy or Spain in the European market, which pushed the Romanian producers to new markets such as China and Japan but deliveries are still below expectations.

Romania's wine exports have increased significantly between 2000-2002 (from 253.500 hectoliters in 2000 to 504.500 hl in 2002) and then follow a descendent trend (411.400 hl in 2003, 374.700 in 2004 and 269.600 hl in 2005). From 2005 until 2010 wine exports have decreased hugely, reaching in 2010 just 96.300 hectoliters as can be seen in the figure below.

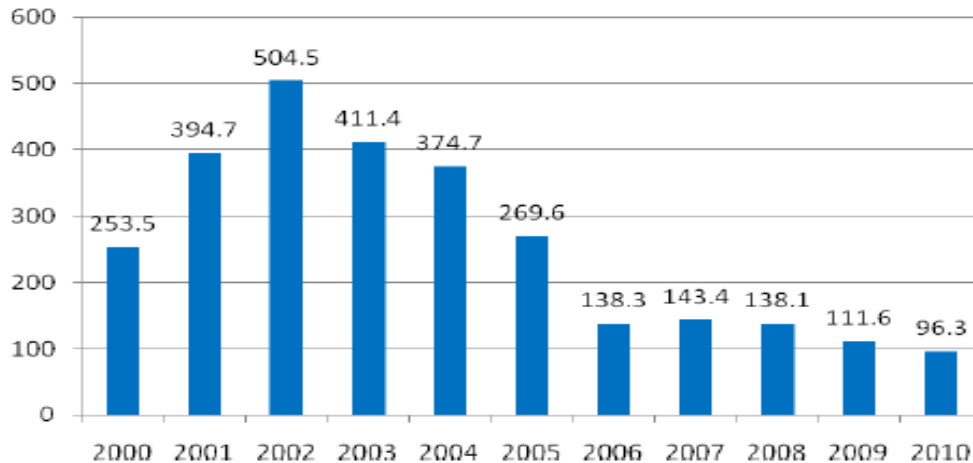


Figure no. 2. - Romania's wine exports, 2000- 2010, (1000 hl)

Source: APEV Romania

The value of wine exports of Romania has followed an upward trend until 2004, reaching a value of \$ 26.2 million dollars compared to only 17.7 million dollars in 2000. This was followed by a period of fluctuations in the country's exports situation presented in Figure 3. If the value of wine exports in 2005 was 22.3 million dollars, year 2006 was the year with the lowest value in the period 2000-2010, with the value of wine exports of only 16.3 million dollars. 2007 and 2008 were years in which the value of wine exports increased (22 million in 2007 and 24.1 million in 2008) and then decreased in 2009 to 20.6 million dollars and in 2010 to 19.4 million.

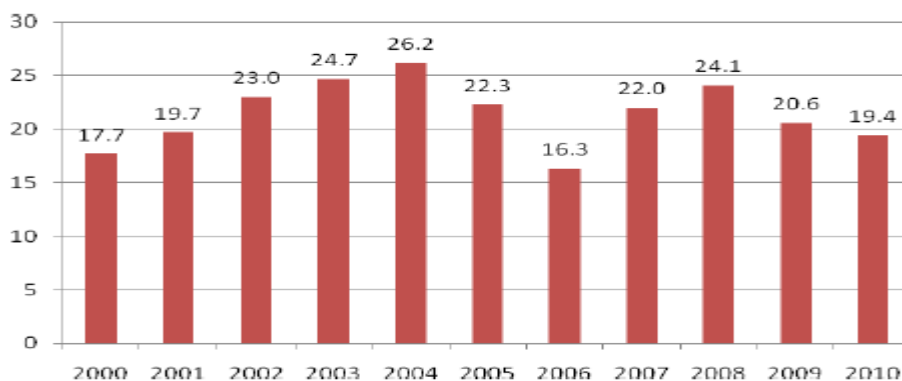


Figure no. 3. - Romania's wine exports, 2000- 2010 (million dollars)

Source: APEV Romania

Germany is the country where Romania exports the largest quantity of wine, about 25% of total wine exports, followed by China with about 18%. On following places are in a draw Italy and the United States where Romania exports 24% of local production intended primary destinations for export. In Figure 4 we presented a situation with top 10 places in which Romania exports wine.

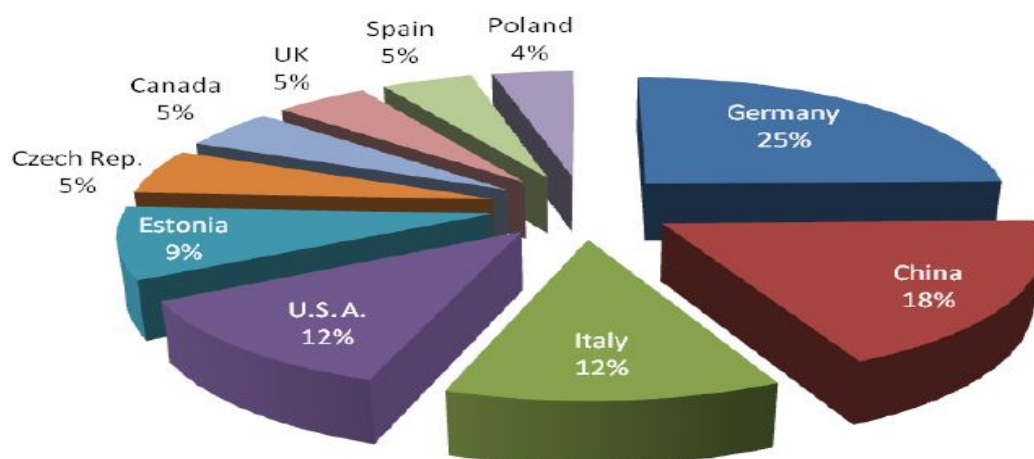


Figure no. 4.- Countries with the highest percentage of Romanian wine exports, 2010(%)

Source: APEV Romania (based on the data from CRPCIS)

Romania's wine imports were very low in the period 2000-2004. If in the year 2000 there were only 13.100 hectoliters of wine imports, in the year 2005 wine imports increased up to 46.200 hectoliters. 2006 was the year with the largest wine imports from the period 2000-2010, reaching up to 583.200 hectoliters suddenly. However in the coming years wine imports have followed a downward trend reaching in 2009 only 130.200 hectoliters, even if in the year 2010 wine imports recorded again a slight increase reaching 224.6 thousand hectoliters. A conclusive presentation of the quantities of wine imported by Romania we find in Figure 5.

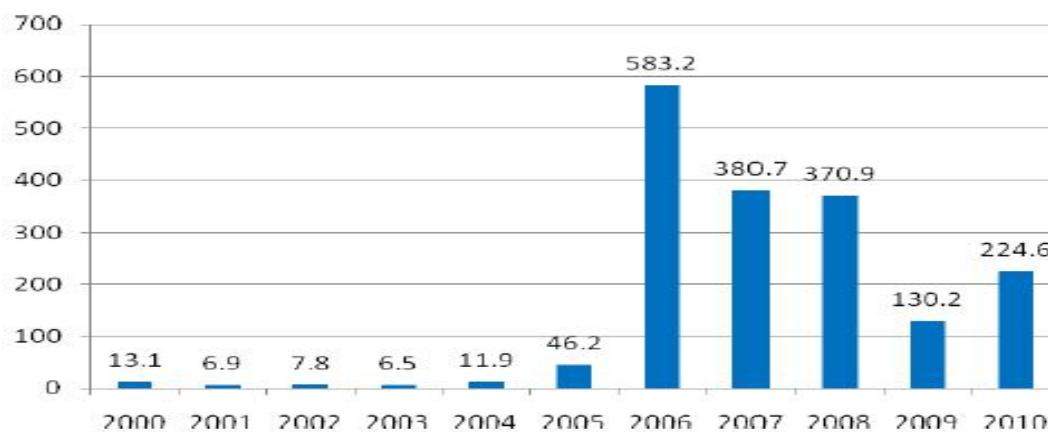


Figure no. 5. - Romania's wine imports, 2000-2010 (1000 hl)

Source: APEV Romania (based on the data from CRPCIS)

Regarding the value of wine imports of Romania, in figure 6 it can be seen that 2008 represented the period with the highest value of wine imports between years 2000-2010 reaching 54.6 million dollar threshold. It can also be seen an increase in wine imports in 2010 (28.8 million dollars) compared to 2009 (23 million dollars).

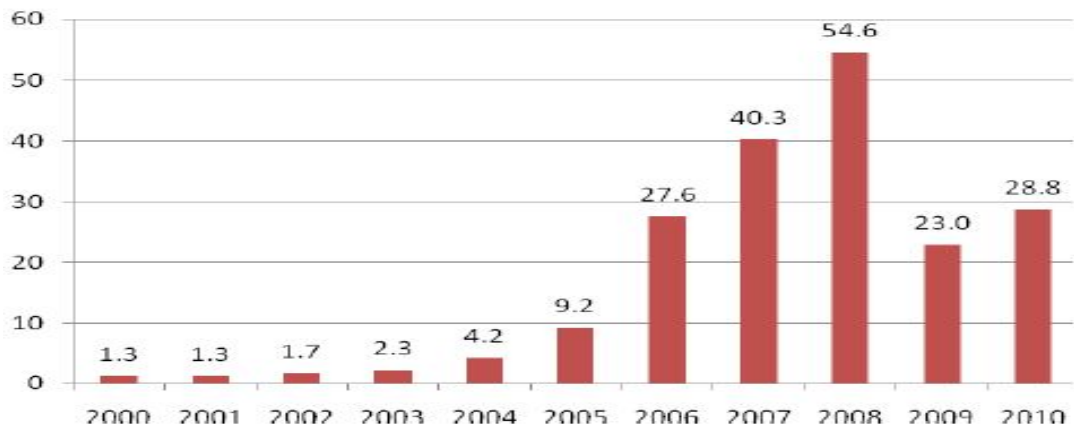


Figure no. 6. - Romania's wine imports, 2000-2010 (million dollars)

Source: APEV Romania (based on the data from CRPCIS)

Given the data presented in figure 7 by APEV Romania we see a difference between standard market share of France in the European Union and Romania's market share of only 5% of total wine imports. In line with market shares in the European Union there is a similar representation in terms of domestic market share and the European market share for wines coming from Spain and Italy.

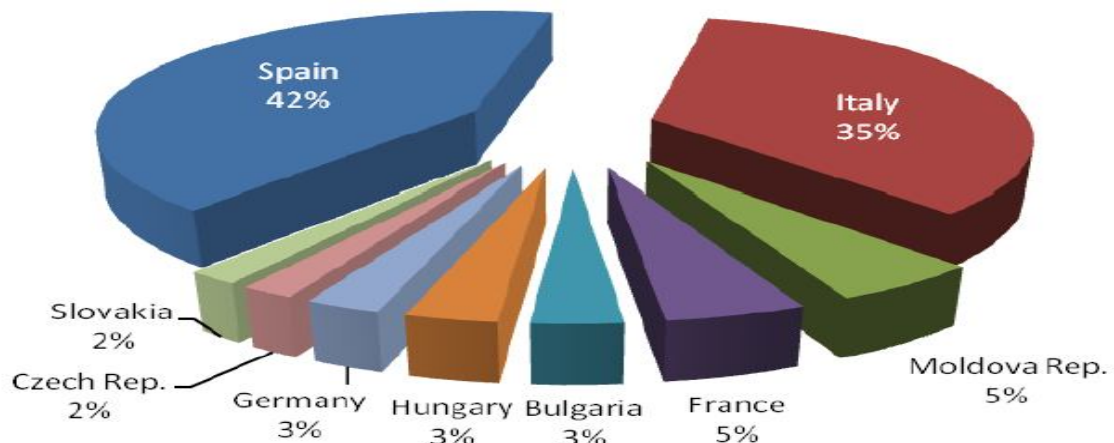


Figure no. 7.- Countries with the largest share in imports of wine of Romania, 2010(%)

Source: APEV Romania (based on the data from CRPCIS)

Literature review

Direct-costing method allows a detailed analysis of the production expenses in order to ensure the efficiency of the entire economic activity, even though it doesn't ensure the setting of some responsibilities regarding the level of fixed expenses (Briciu and Tabără, 2012).

Direct-costing represents a method of calculation that, although can not be used in financial reporting, it represents a very strong instrument of analysis within reach of enterprise's management, because "the model direct-costing" is oriented to future; it permits the elaboration of some forecasts and simulations that emphasize the main factor of benefit or of loss of the enterprise: the volume of activity or the volume of sales (Albu and Albu, 2003).

The mechanism was elaborated and applied in the economic practice in SUA in 1934 by Harris N. Jonathan and a year later by Harrison G. Carter. Direct costing was also taken and applied by some countries from Europe like France, England, Germany, Italy and others.

Lentilhon W. Robert considers that the direct-costing method determines a decrease of the value of the stock because the fixed costs are not taken into consideration at the calculation of the unitary cost of the product (Lentilhon W.R., 1964). The fixed costs are considered expenses in that period. Also Brumet R. Lee thinks that the direct-costing method requires at first a study of the trends of cost and a separation of the fixed and variables elements (Brumet R.L., 1955).

Direct-costing attributes to products only the variable costs and treats all fixed costs as costs of period (Seiler E.R., 1959). The variable costs will include only those that the enterprise considers that are occasioned by making the planned production.

Direct-costing method is very important for the managers of the entities because generates important information that contributes in taking decisions about the future activities. Also, the method will provide a basis regarding the forecast of the cost for the study of the effects of planned changes in the volume of production, determined by the change of the economic conditions or some open actions of the management, such as price changes, the increase or decrease of costs, or special promoting activities.

Research methodology

The research may be defined as a search through a methodological process of improving your own knowledge and those of others by the discovery of nontrivial facts and visions. The necessary condition for achieving success in research domain is adding new knowledge in this domain.

The scientific research could be defined as a process of expansion of knowledge, achieved through a careful and objective observation, investigation, and experimentation and targeting the discovery of new information or interpretation. Formally, any research consists of four parts (stages): consulting the literature, developing theories, testing theories and concepts of reflection and integration. Given the theme addressed by us, research focused on two levels, both a theoretical approach to the issues and a practical approach, applied.

The research activity for establishing theories and verification of the ability to implement can be generally classified according to the reference point in two major categories: deductive research (from theory to practice) and inductive research (from practice to theory) (Groșanu, Răchîșan, Berinde, 2012). In this research paper we started from a deductive approach, starting from theory toward an inductive approach which consists in a case study. The combining the deductive trend with the inductive trend is known in the specialized literature under the term "composite research".

In our study we called as research methods the document analysis, the observation and the case study. We consulted specialized literature etc., articles, and publications. In the last part of our work we tried to present conclusions following the analysis of conducted study.

Case study

A wine entity produces several varieties of wine focusing on two types of production: bulk (260.200 liters) and bottled (257.000 liters). The situation of production, expenses, revenues and results are as follows (table 1 and 2).

Table no.1.

The situation of expenses and revenues of bulk production

| Explanations | Assortments | | | Total |
|--------------------------|-------------|---------|--------|---------|
| | Dry | Semidry | Red | |
| Production (liters) | 87400 | 86600 | 86200 | 260200 |
| Unit cost (lei/liter) | 5,7 | 5,7 | 6,3 | |
| Unit price (lei/liter) | 6,3 | 6,3 | 7 | |
| Sale (lei) | 550620 | 545580 | 603400 | 1699600 |
| Variable expenses (lei) | 498180 | 493620 | 543060 | 1534860 |
| Gross contribution (lei) | 52440 | 51960 | 60340 | 164740 |
| Fixed expenses (lei) | - | - | - | 55000 |
| Profit (lei) | - | - | - | 109740 |

Table no. 2.

The situation of expenses and revenues of bottled production

| Explanations | Assortments | | | | | Total |
|--------------------------|-----------------|------------|--------------|------------|------------|---------|
| | Sauvignon Blanc | Dry Muscat | Dry Riesling | Pinot Gris | Pinot Noir | |
| Production (liters) | 51400 | 51500 | 51800 | 51300 | 51500 | 257500 |
| Unit cost (lei/liter) | 16,2 | 16,5 | 16,4 | 16,2 | 16,3 | - |
| Unit price (lei/liter) | 18 | 18 | 18 | 18 | 18 | - |
| Sale (lei) | 925200 | 927000 | 932400 | 923400 | 927000 | 4635000 |
| Variable expenses (lei) | 832680 | 849750 | 849520 | 831060 | 839450 | 4202460 |
| Gross contribution (lei) | 92520 | 77250 | 82880 | 92340 | 87550 | 432540 |
| Fixed expenses (lei) | - | - | - | - | - | 85777 |
| Profit (lei) | - | - | - | - | - | 346763 |

To highlight the performance were calculated following indicators: the critical point (equilibrium) coverage factor, safety coefficient and safety interval. Thus, equilibrium point was determined by the formula:

$$P_e = \frac{CF}{\overline{cb}_u}, \text{ where:} \tag{1}$$

\overline{cb}_u = average unit contribution to profit;

CB = total gross contribution; q = production obtained.

In the case of bulk production: $P_e = \frac{CF}{\overline{cb}_u} = \frac{55000}{0,633128} = 86870,22$ liters

Where: $\overline{cb}_u = \frac{CB}{\sum q_j} = \frac{164740}{260200} = 0,633128$

\overline{cb}_u = average unit contribution to profit;

CB = total gross contribution; q = production obtained.

In the case of bottled production: $P_e = \frac{CF}{\overline{cb}_u} = \frac{85777}{1,679767} = 51064,82$ liters

Where: $\overline{cb}_u = \frac{CB}{\sum q_j} = \frac{432540}{257500} = 1,679767$

Coverage factor was determined after the formula: $F_a = \frac{CB}{D} \times 100$ (2)

where: CB = total gross contribution;
D = sales.

Based on the data collected and calculated the coverage factor situation (Table 3) is as follows:

Table no.3.

Coverage factor of wine assortment

| Bulk production | Coverage factor (%) | Bottled production | Coverage factor (%) |
|-----------------|---------------------|--------------------|---------------------|
| Dry | 9,52 | Sauvignon Blanc | 10,00 |
| Semidry | 9,52 | Dry Muscat | 8,33 |
| Red | 10,00 | Dry Riesling | 8,88 |
| | | Pinot Gris | 10,00 |
| | | Pinot Noir | 9,44 |

Safety coefficient was determined based on the formula:

$$K_S = \frac{PR}{CB} \times 100 \quad (3)$$

Where: PR = profit of the entity.

Thus, for bulk production, safety coefficient is: $K_S = \frac{109740}{164740} \times 100 = 66,61\%$ and for bottled production the safety coefficient is: $K_S = \frac{346763}{432540} \times 100 = 80,17\%$

The safety interval was calculated after the formula: $I_s = D_T - dP_e$, (4)

Where: dP_e = sale at the level of the equilibrium point;

D_T = total sale.

Based on data calculated for bulk production, safety interval is 1132173 lei and the production bottled safety interval is 3715833 lei.

Data analysis and interpretation

Based on data collected, processed and calculated can be found the following:

Equilibrium point obtained from bulk production (86870.22 liters) and also from the bottled production (51,064.82 liters) indicates the size of the sales from which any additional sale from them is bringing benefits such as any reduction in the same structure, generates losses.

Coverage factor obtained from bulk production means "Red" assortment (10%) contribute the most to cover expenses and to obtain profit, while assortments "Dry" (9.52%) and "Semidry" (9.52%) contributes in a smaller degree at covering expenses and obtaining profit. In the future, the entity will have to turn their attention to producing and selling assortment "Red" because it is the most profitable. In the case of bottled production, the most profitable assortments are: Sauvignon Blanc (10%), Pinot Gris (10%) and Pinot Noir (9.44%), and the non profitable assortments are: Dry Muscat (8.33%) and Dry Riesling (8.88 %).

Safety coefficient shows how much sales may decrease relatively so that the entity to reach the equilibrium point. Thus, for bulk production can decrease by 66.61%, while the bottled production may decrease by 80.17%. All sales deployment decisions must be taken within the dynamic safety factor.

Safety interval shows the absolute magnitudes how much sales may drop so that the entity could not enter into the losses area. Thus, for bulk production, sales may fall by 1.132.173 lei, while the bottled production may fall by 3.715.833 lei.

Conclusions

Using variable cost method in highlighting and measuring the performances from the wine industry presents a number of advantages, among them:

- Making decisions on the conduct of business from the moment the variable costs are lower than the prices;
- Assessment of profitability of different products starting from the margins on variable costs;
- Increased production for products with high margins;
- Judging the performance of the responsible depending on the margin released on activity sectors
- Abandonment of products whose margin on variable costs are turning to the negative way and turning to the positive way
- Indicating a minimum price, variable cost for negotiating additional orders

Although it is not a perfect method, variable cost method presents a number of limitations related to its reasoning and which is available only in the short term, reducing or suppressing of fixed expenses occurs on long term. Also the method does not take into account that some products that are profitable apparently can be large consuming of support functions and which is reflected in very high fixed costs. When the appreciation of the performance of responsible is starting from margin, this should be done with great caution because such an appreciation could lead to short-term logics and to neglecting fixed costs.

In conclusion we can say that the variable costs method seen in the light of its advantages is a method that allows a clear highlight of performances of wine entities, but can provide a much more cost effective perspective through the combined use with other tools of monitoring and measurement of performances such as: dashboard, balanced dashboard or comparative analysis.

References

1. Albu N., Albu C., 2003. *Instruments of performance management*, Vol. I and II, Economic Publishing House, Bucharest
2. Briciu S., Căpușeanu S., Rof L.M., Topor D., 2010. *Accounting and management control. Tools for measuring the performance on an entity*, Aeternitas Publishing, Alba Iulia
3. Briciu S., 2008, *Variable and fixed costs in company management*, Annales Universitatis Apulensis Series Oeconomica, vol.1(10), pp. 164–170
4. Briciu S., Căpușeanu S., Topor D., 2012. *Developments on SWOT Analysis for costing methods*, International Journal of Academic Research, Vol. 4, No. 4, pp. 145-153
5. Brumet R.L., 1955. *Direct costing—Should it be a controversial issue?*, The Accounting Review, Vol. 30, No. 3
6. Căpușeanu S., 2008. *Elements of management of costs*, Economic Publishing, Bucharest
7. Groșanu A., Răchișan P.R., Berinde S.R., 2012. *Creative accounting, an expression of the disconnection between accounting and taxation*, Annales Universitatis Apulensis Series Oeconomica, 14(1), p 66-72
8. Grosanu A., 2010. *Cost calculation on profit centers*, Irecson Publishing, Bucharest.
9. Ivan O.R., 2009. *European Standardization of Audit*, Annals of the University of Petrosani, Economics, Vol. 9, Issue 4
10. Lentilhon R.W., 1964. *Direct costing – Either... Or?*, The Accounting Review, Vol. 39, No. 4
11. Răchișan P.R., Groșanu A., Berinde S.R., 2011. *The measurement of post-merger performance based on accounting data*, International Conference on Management of Technological Changes, Democritus University of Thrace Greece, pp. 305-308

12. Mukul P., Nistor I.A., 2011. *Time Duration Decay In Romanian Capital Markets*, Theoretical and Applied Economics, General Association of Economists from Romania-AGER, vol. 5(5(558)(su), pp. 641-646
13. Nistor I.A., Vaidean V.L., 2010. *Econometric Modeling Of Romania's Public Healthcare Expenses- County Panel Study*, Annales Universitatis Apulensis Series Oeconomica, no. 12(1), pp. 460-466
14. Seiler R.E., 1959. *Improvements in external reporting by use of direct costing*, The Accounting Review, Vol. 34, No. 1
15. Topor D., Dorin I., Puțan A., 2011. *The role of cost information in decision-making. Case study*, Annales Universitatis Apulensis Series Oeconomica, no. 13(2), pp. 315-324
16. Tabără N., Briciu S. (coordinators), 2012. *Actualities and accounting and management control*, Tipomoldova Publishing, Iasi