

# ANALYSIS OF PROFITABILITY RATIOS OF WINERIES IN THE MARAMURES REGION

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**Abstract.** The aim of the research is to identify a sustainable wine-growing system of the Maramures Region based on the values of some indicators of profitability ratios. The research is carried out on the global activity of the companies having as their scope of business "Cultivation of grapes / Manufacture of wine from grapes". Gathering information from the websites of the Romanian wine cellars as well as from the promotion website of the Romanian wine cellars ( [www.cramaromania.ro](http://www.cramaromania.ro)) documentation based on financial accounting and bookkeeping information for the period 2019-2023 ( [www.listafirme.ro](http://www.listafirme.ro) ), then the application of the formulas of calculation of the researched indicators have allowed the presentation of some conclusions for the research results.

**Keywords:** Viticulture, Turnover, indicators, sustainability, wines

## INTRODUCTION

The wine-growing areas developed in the rural space of Maramures, namely the Satmar and Crisana Hills, come to complete the wine-growing areas of Romania. The rural viticulture activities in the locations of Dobra, Beltiug, Halmeu, Ratesti, which are areas with a cool climate, abundant rainfall, mild winters and sheltered from blizzards, with infinite plantations since 2011, with a partially volcanic terroir, which gives a strong mineral character to the wines, come to complete the specific characteristics of rural tourism in Maramures.

The largest wine producer in the world is considered to be the European Union, so in 2020 it accounted for 45% of wine-growing regions, 64% of production and 48% of consumption. Of total European agri-food exports, the wine sector accounted for 7.6% in 2020. ([www.insse.ro/tempo](http://www.insse.ro/tempo) online)

EU wine growers, wine producers, traders and consumers are supported and protected through policies, legislation and labelling, trade measures and market monitoring. Through two EU regulations, namely the Commission Delegated Regulation (EU) 2018/273, a regulation imposing a system of vine planting authorisations for the period 2016-2030, which allows growers to increase production within certain limits. The second regulation, Regulation (EU) 2021/2117, extended the application of the authorisation system until 2024, with two time-assessments by the Commission, in order to verify the functioning of the system and to make proposals, if necessary.

Sustainability is an economic concept that emphasises the importance of profit for economic units, the community and the environment. The important role attributed to sustainability in the development strategy of companies is in managing the overall

impact of the company's activities or in creating long-term value for its stakeholders ([www.goldring.ro](http://www.goldring.ro)).

The Common Agricultural Policy (CAP) aims to achieve a sustainable agricultural system in the EU through three main objectives:

- Economic sustainability
- Environmental sustainability
- Social sustainability of farms.

Economic sustainability in the wine sector requires sustainable economic practices to protect long-term profitability. It is the application being investigated in this paper.

Environmental sustainability in the wine sector implies an ecologically sustainable farm policy, the encouragement of low input winegrowing activities, the protection of natural resources, sustainable viticulture methods.

Social sustainability alongside the economic sustainability of the wine business continues with socially inclusive actions such as support for small winegrowers and redistributive payments, in particular redistributive complementary income support for sustainability, a key objective of the CAP 2023-2027([www.agriculture.ec.europa.eu](http://www.agriculture.ec.europa.eu))

## MATERIALS AND METHODS

The researched material is the economic information taken from the Annual Financial Statements of the wine farms researched in the wine cellars area of Romania, namely the Maramures Wine Cellars. There are nine wine-growing businesses recorded in the [www.crameromania](http://www.crameromania) classification, two of which are organised as individual enterprises without legal personality. The sample we surveyed is summarised to just the six wine-growing companies, which we will disseminate from several points of view.

The preliminary stage of the profitability analysis is the study of the profit based on the indicator expressed in absolute values, but for more relevance of the reasoning it is necessary to relate it to other indicators, so the resulting ratios will provide information with complex economic significance (Stefanita Sasu, 2021). From a mathematical point of view, the ratios are determined as the ratio between an effect type indicator, such as profit/loss and an effort type indicator, such as "activity flow" or "stock", turnover, total revenue, equity, total assets, etc. (Ana Maria Hristea, 2013).

### Commercial rate of return analysis

Profitability indicator expressing the efficiency of the commercial policy and especially of the pricing policy practised by the economic entity. It usually analyses the trend, from one period to another, but also the comparison with the results obtained by competitors.

$$R_{MN} = \frac{R_n}{CA} \times 100$$

$R_{MN}$  = Net margin ratio

$R_n$  = Net profit

$CA$  = Turnover (Stefanita Susu, 2021)

Depending on the indicator values, the following situations may be encountered:

- Unstable if the profit margin is below 1%;
- Stable, if the profit margin is between 1% and 15%;
- Volatile, if the profit margin is higher than 15% (Stefanita Susu, 2021)

Analysis of the rate of return on fixed assets

Profitability indicator that expresses the degree of profitability of fixed assets in the economic entity, determined by the contribution of fixed assets to the net result.

$$R_{OA} = \frac{R_n}{A_t} \times 100$$

$R_{OA}$  = Rate of return on fixed assets

$R_n$  = net profit

$A_i$  = fixed assets (Marian Siminica, 2010)

Analysing the rate of return on equity

The financial rate of return expresses the efficiency of the utilisation of the enterprise's equity (the relative remuneration of the partners/shareholders). Managers are also interested in achieving an appropriate level of this rate in order to be able to quarter their positions and fulfil the company's performance criteria.

$$R_{OE} = \frac{R_n}{C_{pr}} \times 100$$

$R_{OE}$  = Rate of return on equity

$R_n$  = net profit

$C_{pr}$  = Equity capital (Silvia Petrescu, 2004)

## RESULTS AND DISCUSSIONS

Table 1. Presentation of grape varieties cultivated and wine brands produced in Maramures Wine Cellars

| Wine Cellar | Brands                      | Grape varieties  |
|-------------|-----------------------------|--|
| ARDUD       | Ardud Wine Cellar           | Syrah, Cabernet Sauvignon, Rhine Riesling, Sauvignon Blanc   |
| NACHBIL     | Nachbil, La Capela          | Chardonnay, Sauvignon Blanc, Mustoasa de Maderat, Feteasca Regala-vita veche, Sylvaner Verde, Rhine Riesling, Italian Riesling, Cabernet Sauvignon, Pinot Noir, Syran, Mwrlot, Feteasca neagra             |
| TEODOR      | Frappant, Adeodatud, Satmar | Pinot Gris, Sauvignon Blanc, Rhine Riesling, Tamaioasa Romanesca, Traminer Roz, Cadarca, Cabernet Sauvignon, Pinot Noir, Merlot, Feteasca Neagra   |
| DOBRA       | Dobra Winw                  | Burgund Mare, Cabernet Sauvignon, Mustoasa de Maderat, Sauvignon Blanc, Italian Riesling, Feteasca Regala, Muscat Ottonel, Tamaioasa Romanesca, Traminer Roz, Cadarca, Feteasca Neagra, Merlot, Pinot Noir |

|                   |                                  |   |
|-------------------|----------------------------------|---|
| NASTASE           | Crama Nastase, Ariana, Ianis, 9R | Feteasca Regala, Riesling de Rhin, Muscat Ottonel, Feteasca Neagra, Pinot Noir, Merlot, Cabernet Franc, Cabernet Sauvignon  |
| VINARIA JUGRESTAN | Stories, Ravac                   | Italian Riesling, Rhine Rhiesling, Chardonnay, Feteasca Alba, Feteasca Regala, Cserszegy Fuzeres, Muscat Ottonel, Tamaioasa Romaneasca, Pinot Noir, Merlot, Cabernet Sauvignon, Feteasca Neagra |
| HETEI FAMILY      | Family Selection, Family Reserve | Chardonnay, Sauvignon Blanc, Pinot Gris, Furmint, Rhine Riesling, Feteasca Regala, Tamaioasa Romanesca, Feteasca Neagra, Merlot, Pinot Noir, Cabernet Sauvignon, Cabernet Franc, Syrah          |
| RATES             | Wine Cellar Ratesti              | Riesling Italian, Sauvignon Blanc, Feteasca Regala, Muscat Ottonel, Traminer, Pinot Noir, Merlot, Cabernet Sauvignon, Feteasca Neagra   |

Source: own processing after [www.cramaromania.ro](http://www.cramaromania.ro)

Choosing and cultivating the right grape varieties is an important factor in forecasting and controlling the grape harvest, as well as in obtaining sustainable and quality wines. The eight active wineries in the Maramures region are growing several varieties as trials, but they need to identify the varieties that will ensure their activity for the distant future, namely, the sustainability of the business.

They could also train in organic viticulture.

Organic vineyards ([www.agro.basf.ro](http://www.agro.basf.ro)), focuses on the cultivation of grapes in a sustainable way, without the use of chemical substances but only products certified for crop care, the techniques to be used, the rules to be followed for obtaining certifications and labelling of agri-food products obtained in this way.

Table 2. Presentation of cultivated areas and bottled quantities in the wine business in Crame Maramures

| Wine Cellar       | Cultivated area | Quantity bottled annually |
|-------------------|-----------------|---------------------------|
| ARDUD             | 2.21 ha         | 7000 l                    |
| NACHBIL           | 20 ha           | 70000 l                   |
| TEODOR            | 12 ha           | 40000 l                   |
| DOBRA             | 300 ha          | unspecified               |
| NASTASE           | 6 ha            | 15000 l                   |
| VINARIA JUGRESTAN | 0.65 ha         | 1500-2000 l               |
| HETEI FAMILY      | 15 ha           | 30000 l                   |
| RATES             | 205 ha          | unspecified               |

Source: own processing after [www.crameromania.ro](http://www.crameromania.ro)

The cultivated areas vary as the varieties grown and the bottled productions vary from one winery to another. The Nachbil winery owns 25 hectares of vineyards, and since 2011 it has focused on the production of organic wines, which express as faithfully as possible the local characteristics without using standard technologies.

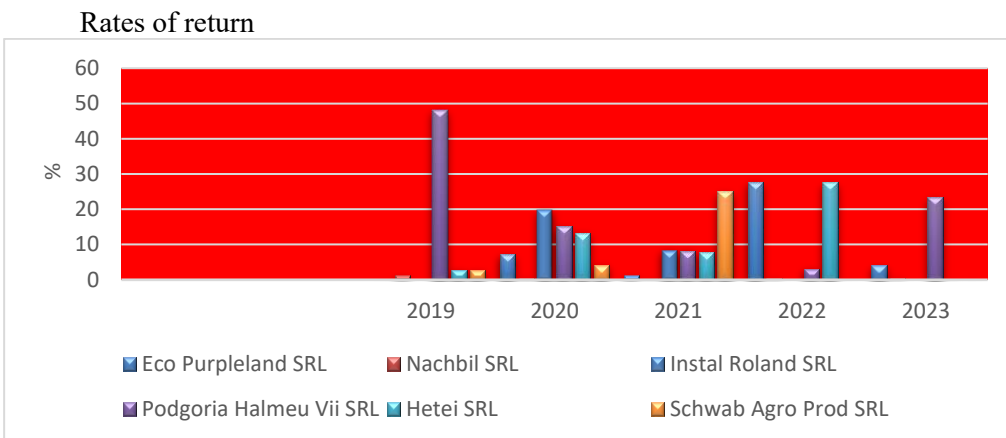


Fig. 1. Dynamics of profitability of tangible rates  
 Source: autor's own processing after www.listafirme.ro

The profitability of tangible fixed assets within a wine company measures the efficiency of the use of fixed assets, i.e. productive biological assets, machinery, equipment and installations owned by the wine company. The sample of the six wineries in the Maramures area is characterised by sharp variations in the rate of return on fixed assets from one year to another, except for Nachbil winery, which has been registering more moderate variations from one year to another. Another peculiarity is the variations in net profit, in the sense of decreasing from one year to the next or even recording a loss, which means zero profitability. It is very important in the management of a winery's assets to make investments year after year in durable goods such as vineyards or to aim for profit growth at a faster pace than investment growth.

It is very important for wine-growing companies that their activities are profitable. The profit is the source for investments, such as: vine varieties adaptable to the environment, climate, resistant to diseases and pests, in non-polluting and environmentally friendly machinery.

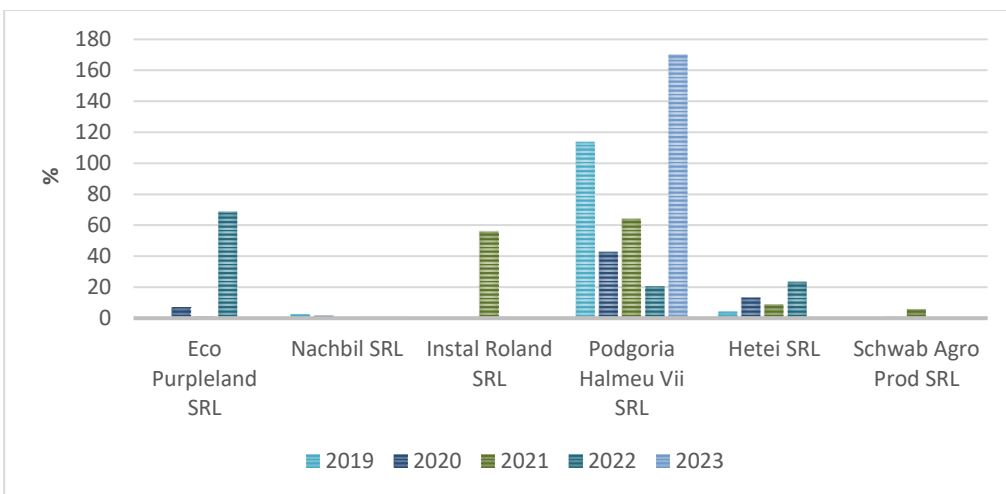


Fig. 2. Dynamics of commercial rates of return  
 Sources: autor's own processing after www.listafirme.ro

Commercial profitability or its ability to make a profit, which is the effect of the wine activities carried out and the faster growth rate of net profit compared to the growth rate of turnover. The sample of wine companies surveyed shows large variations in the commercial rate at Ardud Winery and Nastase Winery. More moderate variations are present at Nachbil and Hetei wineries. The Dobra and Retesti wineries also register annual losses, therefore their profitability is zero. Taking into account the rates of return determined over the five years for the six wineries, it can be noted that: the Ardud Winery is in an unstable situation, Nachbil Winery is also in an unstable situation, Dobra Winery is in a volatile situation, Nastase Winery is in a volatile situation, Hetei Winery is stable/volatile, and Ratesti Winery is in an unstable situation.

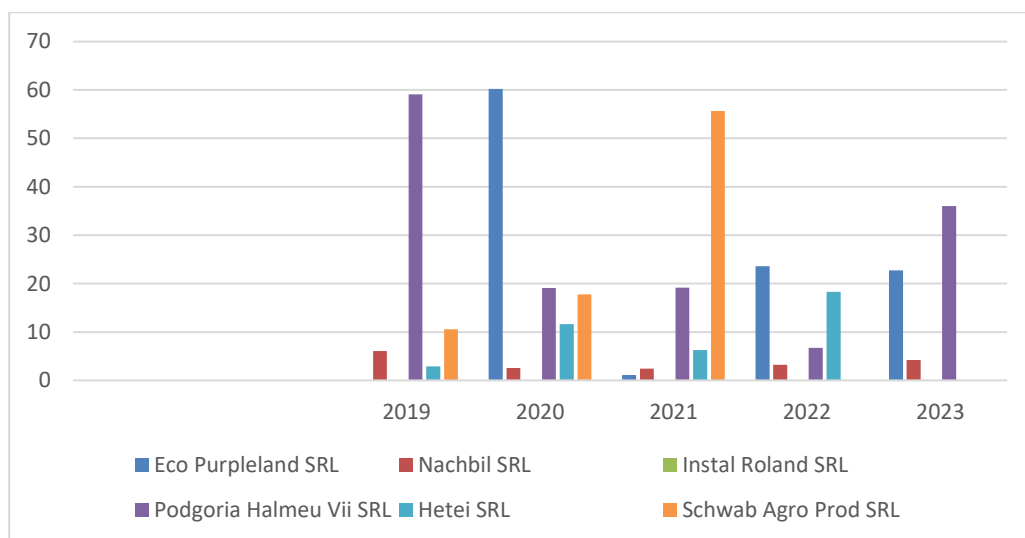


Fig. 3. Dynamics of rates of return on capital  
Sources: autor's own processing after [www.listafirme.ro](http://www.listafirme.ro)

The return on equity, also called return on capital, allows us to estimate the level of sustainable growth of the company, it is like a price tag for a share or a shareholding in a wine company. The sustainable growth rate is the rate at which the company can grow without having to resort to loans or other financing to grow the business. In the context of the six companies, Dobra Winery and Ratesti Winery register zero rates. Year-to-year changes in net profit, as well as changes in capital, result in widely fluctuating rates of return on capital.

## CONCLUSIONS

About the Satmar and Crisana Hills we can say that they are favourable areas for vine-growing, but the owners of the wineries active in this area need to decide which from the multitude of the cultivated varieties are the ones that would give life to the business for many years to come, that is to say, would ensure its sustainability.

The management of existing wine businesses has to take into account the three forms of sustainability, forms that strengthen the sustainability of the company and therefore its profit.

It is very important that management is done through budgets and on the basis of sustainable budgets, so that any deviations can be analysed and possibly recovered.

In terms of production, innovation and creativity in the world of winemaking and wine should be present and that is a good thing, but the costs and added value of each wine must be also analysed.

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