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ARE WINERIES IN SLOVAKIA PROFITABLE?

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Profit is a measure of the success of enterprises, it is quantified from the difference between revenues and costs. It fulfils several functions, whether distributive, accumulative, motivational. Many factors influence its formation and development. Profit represents an internal source of financing for business activity. The main objective of the paper is to evaluate the formation and development of profit or loss and its forms in selected wineries in Slovakia. In Slovakia, the wine industry has a long tradition. The paper was focused on the evaluation of costs, revenues as two important factors affecting the formation of the profit or loss. Profit/loss was reflected in the quantification and analysis of profitability indicators, which are referred to as profitability, return indicators. Based on the results of calculations of individual indicators, it can be stated that the set of 120 wineries showed a profit, which positively affected the values of profitability indicators. Wineries showed a loss only from financial area

Keywords: EAT, indicators, profit and loss statement, profitability, wineries

Introduction

The wine sector is of great importance of many EU countries. The EU is a world leader in area under grape cultivation and wine production (Maciejczak, Filipak and Gardinam, 2019). The wine industry is a global market, highlighting the vast number of producers and consumers in Europe. There is diversity of wine production methods, ranging from traditional manual processing to large-scale industrial production (Dudic, Mittelman and Spalevic, 2024). In 2020, there were 2.2 million wine holdings in the EU and vineyards covered about 2% of the EU's utilised agricultural area. Wine growers in the EU can receive financial support from the common agricultural policy to restructure their vineyards. The main aim is to make them more competitive (European Court of Auditors, 2023). The Slovak wine market is the market in the growth phase – the total domestic wine consumption and also the wine consumption per inhabitant are growing (Kučerová, 2014). The problem of the development of wineries in Slovakia lies mainly in the low subsidy scheme. Therefore, small and medium-sized winemakers must stick to their customary method and system. The organization must have the ability to break into the market with its products, as the result of its production (Prístavka et al., 2022). Besides the regular wine-making activities, the winery offers entertainment and educational activities such as wine-tasting courses and attracting more visitors to the wineries (Ding and Lin, 2023). Today the main tool that determines the results and effectiveness of any organization is an effective system of sales activity. Modern sales system needs constant improvement based on the assessment of business profitability indicators (Garmatiuk, 2023). The results of the analysis show that there is no universal profitability indicator, that would cover all areas of company performance, because profitability indicators' reliability, as well as objectivity of comparison to other subjects, are influenced by national accounting standards different prime cost calculation, depreciation methods, and others (Savickas, 2019). One of the most important benchmarks of firm performance is accounting profit (Kh, 2020). Profit earning ability is called the profitability. It is the power of business for proper planning, controlling, optimum utilisation of available resources, proper management, and profit planning capacity. It is an indicator of how efficiently a business is operating, managed, and policy has been taken (Roy and Mandal, 2024). Profitability is one of the most volatile company's financial indicators, it is affected not only by internal but also by external factors (Bekeris, 2012). The authors Iselborn and Mueller Loose (2016), Pavlović et al. (2022), Whitfield et al. (2023) dealt with the profitability of wineries in their papers. Winery's profitability is driven by two things: what you can charge for your wine and what it costs to make and sell it. The market generally determines what someone is willing to pay for wine, so the cost of making and selling that wine largely determines how much profit is left over (Rabanal and Vyenielo, 2020).

Material and methods

The basis for the processing of the paper was data from the accounting, i.e. from the balance sheets and profit and loss statements of selected wine enterprises operating in Slovakia. The monitored time period was the year 2013 – 2022. In this paper 120 wineries registered in Vineyard register were analysed. In the profit and loss statement, costs and revenues are divided into two areas – operating and financial. The difference between revenues and costs produces the profit or loss. If revenues are higher than costs, a profit is made. If revenues are lower, a loss is incurred. This paper was focused on quantifying and evaluating the development of different types of profits, namely: EBT, EAT, EBIT, EBITD. Selected profitability ratios as a ratio of profit or loss and items were quantified. The indicators should take positive values, with an increasing trend.

$$return\ on\ costs\ (ROC) = \frac{EAT}{costs} \tag{1}$$

Return on costs puts in the ratio profit or loss to total costs. It expresses how many euros of profit or loss are attributable to one euro of total costs. Costs represent the valuation of inputs consumed in monetary terms.

$$return\ on\ revenues\ (ROR) = \frac{EAT}{revenues} \tag{2}$$

Return on revenues puts in the ratio profit or loss to total revenues, which is made by operating and financial revenues. Revenues represent the results of the enterprise's activities expressed in monetary terms.

$$return\ on\ sales\ (ROS) = \frac{EAT}{sales} \tag{3}$$

Sales is the most significant revenue item. The following sales are recorded in the accounts: revenue from sales of goods, revenues from sales of own products, revenues from sales of services, revenues from the sale of fixed assets and materials, and revenues from sales of securities. ROS also known as a firm's operating margin. A high value means that companies apply a margin policy on sales (Bava and Gromis di Trana, 2016).

$$return\ on\ investments\ (ROI) = \frac{EAT + cost\ interest}{assets} \quad (4)$$

Return on investments expresses the rate at which the capital invested in the business is reproduced. The indicators describe the overall efficiency of the enterprise.

$$return\ on\ equity\ (ROE) = \frac{EAT}{equity} \quad (5)$$

Return on equity is a measure of success for business owners. The indicator is interesting for investors as it tells them whether their capital is appreciating in value and corresponding to the risk of the investment.

The enterprise is profitable if it makes a profit. For the efficient functioning of enterprises, it is desirable that they make a profit, which is a measure of the success of business activity. The minimum value (MIN), maximum value (MAX), median value (MEDIAN), and quartiles were also quantified within each profitability indicator.

RESULTS

As of 31st of July 2022, a total of 769 winegrowers and 286 vintners registered in Vineyard register were operating in Slovakia (The Central Control and Testing Institute in Agriculture, 2022). Most of the winemakers are made up of small winemakers, who operate under a business licence. For analysis enterprises that have the legal form of a trading companies or agricultural cooperatives were selected, 120 enterprises in total, divided by wine-growing region. The profit or loss are influenced by two basic indicators, namely costs and revenues. From the point of view of the profit and loss statements, revenues and costs are divided into the operating and financial areas. Table 1 quantifies the development of costs, revenues and profit or loss of the operating activities of the selected wine-growing enterprises. Operating area is the main business activity of the winegrowing enterprises. In terms of revenues, it captures all significant sales that generate income for the enterprise. In terms of costs, the operating area captures all the costs that the enterprise needs for its main activity, whether material and energy consumption, personnel costs, depreciation, services, cost of goods, and other operating costs. Over the entire period under review, comparing 2022 and 2013, was noticed and increase in costs and an increase in revenue from this area. The wineries achieved a higher increase in revenues (increase of €372,933) than in costs (increase of €323,142), which was reflected in the reported annual profits. Since 2017, its values have grown year-on-year until 2022, when the highest operating profit of €107,671 was recorded.

Table 2 shows the evaluation of the indicators forming the financial area, namely costs, revenues and profit or loss from the financial area of wineries. Financial activity is not the main activity of the wineries. Of the financial costs, these wineries reported only cost interest, exchange losses, and other costs of financial activities. Of the financial revenues, they reported revenue interest, exchange gain and other revenues from financial activities. Financial costs exceeded the revenues from financial activities each year, which was reflected in the reported loss. By 2022, compared to 2013, costs from financial activities increased by 1,456, while revenues showed a downward trend, decreasing by €3,907. The reported loss increased by €5,364 by 2022 compared to 2013.

Adding the operating profit and financial profit gave the EBT. Since the operating profit exceeds the financial loss, the positive value of the winery profit was quantified every year. The value of EBT by 2022 has increased by €44,428 compared to 2013. After deducting income tax, the value EAT was obtained. The wineries had a positive after-tax profit every year, which showed

Table 1 Development of revenues, costs, and profit or loss of operating area of the selected wineries

Indicator/Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Operating costs	1,125,432	1,111,291	1,126,042	1,185,284	1279,053	1,313,872	1,242,707	1,352,415	1,325,830	1,448,574
Operating revenues	1,183,312	1,200,246	1,192,796	1,273,165	1,359,066	1,394,337	1,325,619	1,447,718	1,424,271	1,556,245
Operating profit or loss	57,879	88,955	66,754	87,881	80,013	80,465	82,912	95,303	98,441	107,671

Source: profit and loss statements of wineries, own processing

Table 2 Development of revenues, costs, and profit or loss of financial area of the selected wineries

Indicator/Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Financial costs	18,821	30,346	16,873	15,706	30,863	18,476	18,648	18,088	18,679	20,278
Financial revenues	5,774	14,371	1,103	1,802	15,220	1,425	513	477	1,441	1,866
Financial profit or loss	-13,048	-15,975	-15,769	-13,905	-15,644	-17,051	-18,134	-17,611	-17,238	-18,411

Source: profit and loss statements of wineries, own processing

Table 3 Evolution of the various forms of the profit or loss of the selected wineries

Indicator/Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
EBT	44,832	72,981	50,984	73,977	64,369	63,414	64,778	77,692	81,204	89,259
EAT	27,513	53,835	24,500	67,585	34,323	37,032	41,821	52,623	54,822	64,335
EBIT	56,791	86,553	64,870	86,342	77,962	77,178	79,398	91,688	96,198	104,735
EBITD	179,919	194,132	183,794	203,432	207,685	218,356	213,016	228,908	233,604	240,646

Source: profit and loss statements of wineries, own processing

a fluctuating trend during the different years analysed, but the evaluation over the whole period under review, its value increased by €36,822. After adding cost interest to EBT, EBIT was quantified. The value of this indicator showed a fluctuating trend, ultimately almost doubling its value in 2022 compared to 2013. After adding depreciation and amortization to EBIT, EBITD was quantified. The value of depreciation more than double EBIT, even tripling in 2013.

Profit/loss was reflected in the quantification of individual profitability indicators. Table 4 quantifies the return on cost of wineries. EAT contribute to the positive values of the profitability indicators. The return on cost shows a fluctuating trend, overall, the indicator increased by €0.020. This increase was due to the growth in EAT as well as the increase in costs. For the whole period under review, the average EAT was €36 per €1,000 of input costs. The lowest value of the indicator is quantified in 2014, when the winery incurred a loss of €8.328 per euro of costs incurred. On the other hand, the highest quantified value of the indicator was in 2016, when €48 of EAT was attributed per euro of cost incurred. The average mean value of return of cost in the selected set of wineries was €0.004. 25% of wineries achieved an average return on cost value lower than €– 0.165. 75% of wineries achieved an average return on cost value lower than €0.006.

Return of revenues also had a similar trend of development as the return on cost (see Table 5). It increased by €0.018 over the whole period under review, mainly due to the increase in EAT and operating revenues. On average over the period analysed, €34 of EAT per €1000 of revenues was generated. The lowest value of return of revenues was quantified in 2021, when the winery incurred a loss of €276 per euro of revenues. On the other hand, the highest value of indicator was in 2016, when €4.83 of EAT per euro of revenues was generated. The average mean value of the indicator across the set of wineries was 0.5%. One-quarter of the wineries reported an average return of revenues of less than €-0.169 and three-quarters of the wineries averaged an indicator value of less than €0.057.

The return on sales indicator follows the development of return on revenues indicator. Sales are the significant part of the revenues of these wineries. The return on sale has increased by €0.021 by 2022 compared to 2013. This was due to both EAT growth and sales growth. On average, €39 per €1000 of sales was generated over the analyse period. The lowest value of the indicator was quantified in 2019, when the winery had a loss of €357 per euro of sales. The highest value of the indicator was in 2014, when €9.59 of EAT was generated per euro of sales. 25% of wineries achieved a return on sales of less than €-0.217 on average. 75% of wineries achieved a return on sales of less than 6.6% on average.

Return on investments is quantified in Table 7. Based on the results was observed a fluctuating development of the indicator, but since 2017 the indicator has grown year-on-year. Over the entire period under review,

Table 4 Development of return on cost in wineries

Indicator/Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Ø
Return on costs	0.024	0.047	0.021	0.056	0.026	0.028	0.033	0.038	0.041	0.044	0.036
Min	-1.000	-8.328	-4.672	-1.270	-1.233	-1.000	-1.000	-1.000	-1.000	-1.000	-2.15
Max	2.748	19.073	27.281	47.983	10.494	1.667	1.277	0.670	1.727	3.777	11.67
Median	-0.001	0.001	-0.012	0.011	0.010	0.003	0.008	0.006	0.004	0.011	0.004
Quartile 1	-0.310	-0.279	-0.220	-0.159	-0.194	-0.142	-0.091	-0.148	-0.078	-0.032	-0.165
Quartile 3	0.029	0.063	0.052	0.094	0.072	0.067	0.059	0.035	0.055	0.076	0.06

Source: own processing

Table 5 Development of return on revenues in wineries

Indicator/Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Ø
Return on revenues	0.023	0.044	0.021	0.053	0.025	0.027	0.032	0.036	0.038	0.041	0.034
Min	-18.631	-68.823	-17.854	-41.647	-10.132	-7.768	-32.382	-235.82	-276.28	-2.34	-71.17
Max	0.733	4.807	1.866	4.830	0.778	0.625	0.559	0.373	0.633	0.694	1.59
Median	0.000	0.002	-0.002	0.012	0.010	0.003	0.008	0.006	0.004	0.011	0.005
Quartile 1	-0.324	-0.283	-0.229	-0.168	-0.193	-0.158	-0.086	-0.143	-0.083	-0.022	-0.169
Quartile 3	0.028	0.063	0.054	0.085	0.067	0.062	0.055	0.033	0.051	0.071	0.057

Source: own processing

Table 6 Development of return on sales in wineries

Indicator/Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Ø
Return on Sales	0.027	0.050	0.023	0.060	0.028	0.031	0.035	0.042	0.044	0.048	0.039
Min	-18.631	-133.747	-49.950	-41.647	-23.210	-11.261	-356.897	-4.734	-8.287	-6,.99	-65.496
Max	2.258	9.858	0.789	2.103	0.778	0.804	6.821	0.397	4.779	0.694	2.928
Median	0.000	0.001	0.000	0.012	0.011	0.004	0.009	0.006	0.006	0.012	0.006
Quartile 1	-0.542	-0.297	-0.270	-0.205	-0.235	-0.216	-0.122	-0.141	-0.108	-0.039	-0.217
Quartile 3	0.033	0.065	0.069	0.094	0.074	0.069	0.066	0.042	0.056	0.093	0.066

Source: own processing

Table 7 Development of return on investments in wineries

Indicator/Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Ø
Return on investments	0.018	0.030	0.016	0.032	0.018	0.019	0.021	0.024	0.024	0.028	0.023
MIN	-14.782	-7.374	-8.418	-23.040	-3.066	-3.947	-1.152	-1.708	-3.075	-1.021	-6.758
MAX	0.683	0.814	0.615	2.039	1.334	0.756	0.847	0.257	1.000	0.411	0.876
MEDIAN	0.000	0.004	0.001	0.008	0.008	0.005	0.005	0.004	0.005	0.010	0.005
Quartile 1	-0.064	-0.102	-0.101	-0.054	-0.051	-0.058	-0.026	-0.034	-0.038	-0.011	-0.054
Quartile 3	0.021	0.043	0.033	0.056	0.048	0.037	0.052	0.033	0.031	0.035	0.039

Source: own processing

Table 8 Development of return on equity in wineries

Indicator/Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Ø
Return on equity	0.029	0.054	0.023	0.061	0.029	0.031	0.034	0.042	0.042	0.049	0.039
Min	-36.879	-4.256	-154.726	-14.09	-12.605	-48.737	-7.510	-2.583	-13.242	-25.152	-31.978
Max	6.448	4.633	55.678	9.728	4.314	8.541	9.949	1.137	73.005	16.372	18.981
Median	0.013	0.060	0.037	0.056	0.040	0.035	0.016	0.013	0.014	0.019	0.030
Quartile 1	-0.049	-0.038	-0.073	-0.067	-0.074	-0.018	-0.046	-0.058	-0.054	-0.030	-0.051
Quartile 3	0.220	0.382	0.262	0.282	0.265	0.243	0.170	0.111	0.123	0.098	0.216

Source: own processing

it grew by 1%. On average, €23 of EAT per €1,000 of total capital invested. The lowest value of the indicator was quantified in 2016, when the winery incurred a loss of €23.04 per euro of total capital. The average mean value of the return on investments indicator in the selected set of wineries was 0.5%. One-quarter of wineries had a value of the indicator lower than €-0.054 on average. 75% of the wineries had an average value of the indicator lower than €0.039 over the whole period.

Return on equity indicator is of interest to investors. The value of the indicator is positive and shows the required increasing trend since 2017. Over the whole period under review, it increased by 2%. On average, €39 of EAT per €1,000 of equity. The lowest quantified value of the return on equity indicator was in 2018, when €48.74 loss per euro of invested equity was incurred. The highest quantified value of the indicator was in 2021, with €73.01 of EAT per euro of equity attributable to wineries. 25% of wineries achieved an average value of return on equity of less than €-0.051. 75% of wineries achieved an average value of the indicator of less than €0.216.

Conclusion

There are many wineries in Slovakia, the number of winemakers and vintners is increasing year by year. Quality wine is produced here and is highly valued internationally. However, a significant share of the market is held by cheap imported wines from countries such as Italy and Spain. Slovak winemakers cannot compete with this cheap wine price. The only criterion when buying wine for the average Slovak consumer is not quality, but price. If a company shows a profit, it is a sign of its prosperity. The analysed set of wineries showed a profit overall, whether in the form of EBT, EBIT, EBITD of EAT. It was mainly positively influenced by operating activity. The wineries made a financial loss, as financial cost (in the form of cost interest, exchange losses, and other financial costs) exceeded financial revenues. Profitability indicators showed the required increasing trend until 2022, compared 2013. Overall, the analysed set of wineries was profitable.

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