

DRIVERS OF THE ECONOMIC PERFORMANCE OF BULGARIAN WINERIES. ASSESTMENT BASED ON DUPONT ANALYSIS

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Abstract

The achievement and improvement of economic rent ability of enterprise is true measure of management efficiency. The return of sales and turnover of the assets of enterprise are the basic divers of economic rent ability. The purpose of current research is to be valuated and determined all factors which are drivers of economic rent ability of wineries from south Bulgaria. The DuPont approach is used for valuation of all drivers of economic rent ability. The results of research show that the return of sales is a key driver which determines economic rent ability of wineries.

Key words: dupont analysis, return of sales, turnover of assets, wineries

Abstrakt

Die Erreichung und Verbesserung der wirtschaftlichen Rentabilität von Unternehmen ist ein wahres Maß für die Effizienz des Managements. Die Umsatzrendite und der Umsatz des Unternehmensvermögens sind die grundlegenden Faktoren der wirtschaftlichen Rentabilität. Der Zweck der aktuellen Forschung ist es, alle Faktoren zu bewerten und zu bestimmen, die die wirtschaftliche Rentabilität der Weinkellereien aus Südbulgarien bestimmen. Der DuPont-Ansatz wird für die Bewertung aller Faktoren der wirtschaftlichen Pachtfähigkeit verwendet. Die Ergebnisse der Forschung zeigen, dass die Umsatzrendite ein Schlüsselfaktor ist, der die wirtschaftliche Pachtfähigkeit von Weinkellereien bestimmt.

Schlüsselwörter: Dupont-Analyse, Umsatzrendite, Vermögensumschlag, Weingüter

Résumé

La réalisation et l'amélioration de la capacité de rente économique des entreprises est une véritable mesure de l'efficacité de la gestion. Le rendement des ventes et le chiffre d'affaires des actifs de l'entreprise sont les principaux éléments de la capacité de rente économique. L'objectif de la recherche actuelle est d'évaluer et de déterminer tous les facteurs qui sont les moteurs de la capacité de rente économique des caves du sud de la Bulgarie. L'approche de DuPont est utilisée pour évaluer tous les facteurs de la capacité de rente économique. Les résultats de la recherche montrent que le rendement des ventes est un facteur clé qui détermine la capacité de rente économique des établissements vinicoles.

Mots clés: analyse de DuPont, rendement des ventes, rotation des actifs, caves

Introduction

Wine sector is one of the main export-oriented sectors of agriculture in Bulgaria. He is also one of the few agricultural sectors which managed to absorb significant financial resources from the EU funds. Due to the effects of SAPARD and later the Rural Development Program (2007-2013 and 2014-2020) of the Republic of Bulgaria the majority of the wine enterprises were able to build a market-oriented varietal structure of its vineyards and meet the requirements of the market. As a result, investment and economic profitability of the sector increase (Borisov, Marinov, 2013). Achieving and maintaining a growing economic profitability is one of the main characteristics of the effectiveness of enterprise management (. Each enterprise needs to be able to settle with their owners (shareholders) and also with its creditors. This requires management to strive to maintain the rate of return on capital employed that is higher than the cost of the same. Overall economic profitability is determined by the profitability of sales and turnover of assets. Knowing the dependence of these two factors, the economic profitability, management can neutralize a possible reduction of profitability of sales by increasing the turnover of capital.

The objective of this study is to analyze and assess the impact of the drivers of economic profitability of wine enterprises in Southern Bulgaria.

The research involve all 55 wine enterprises in Southern Bulgaria. We use the approach DuPont analysis to evaluate the factors determining the economic viability of the enterprise (Sabatthe, 1999). According to this approach, economic viability is determined as follows:

$$(1) RE = ROS \times TA$$

RE - economic rent ability;

ROS - return on sales

TA - turnover of assets.

The main factors determining the profitability of sales are:

The level of market price;

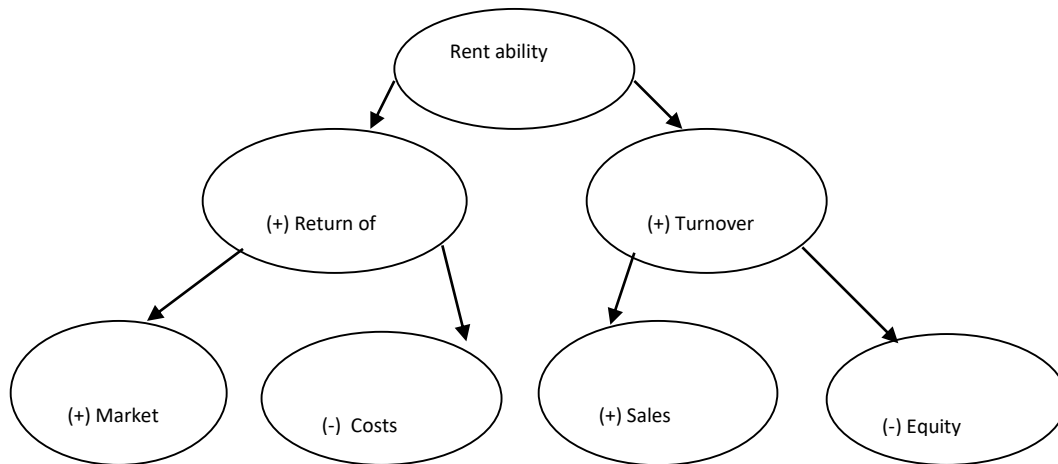
Costs of production.

Key factors that determine the turnover of capital invested in the assets of the company are:

- Sales volume;
- Size of capital.

The direction of influence of factors on the profitability of the sales turnover of assets and economic profitability as used theoretical approach is shown in Figure 1.

Figure 1. Type of relevance of factors which influence economic rent ability according to Dupon approach. Source: Sabatthe, 1999.



Used statistical method - a simple correlation between the two factors to determine the strength and direction of impact factors on the economic profitability of wine enterprises. The aim is to demonstrate the conceptual thesis that economic profitability is influenced by the profitability of sales and turnover of assets in the wine enterprises.

Statistical analysis is performed in the following stages:

- Analysis and evaluation of the strength and direction of influence of drivers- market price; costs of production and sales on outcome indicator – “Return on sales”;
- Analysis and evaluation of the strength and direction of influence of drivers- sales; amount of capital on outcome indicator – “Return on assets”;
- Analysis and evaluation of the strength and direction of influence of drivers - profitability of sales; asset turnover on outcome indicator – “Economic rentability of the enterprise”.

For purposes of analysis we use data from official accounting records (for the period 2010-2019.)
- balance sheet, plan income and expenditure plan, statement of cash flows. Data processing and analyzing the dependencies are performed with SPSS software and MS Excel.

Results

Table 1 sets out the results of the correlation analysis of the factors influencing the profitability of sales of wine enterprises. It was found that the cost of implementation and the cost of production and sales slightly affect the profitability of sales. Correlation coefficients of these two indicators are very low, respectively - 0.07 (for market price) and 0.09 (for the cost of production and sales).

Unlike the theoretical model, the results of the study show that between production costs and selling and profitability of sales there is a positive relevance. In the wine sector, where competition is saturated, the increase in sales was achieved by applying a marketing management approach. This requires making

larger marketing costs by the management of wine enterprise, which aims to increase sales volume, respectively, and the proceeds thereof. These findings lead to the conclusion that the surveyed wine companies can not demonstrate a statistically significant correlation between the studied parameters.

Table 1. Statistical relevance between market price and returns on sales; production costs and return on sales. Source: own survey among 55 wine enterprises, 2019.

Statistical indicators	Driver - market price (BGN / bottle)	Driver - production and sales costs in thousands BGN
Multiple R	0.074196	0.087891
R square	0.005505	0.007725
Adjusted R Square	-0.01326	-0.011
Degree of relevance	weak	weak
Type of relevance	(+) / positive	(+) / positive
Regression coefficient b0	-1.10805	-0.8016
Regression coefficient b1	0.040495	2,56E-05

Table 2 is exposed statistical evaluation of the impact of sales and capital on turnover of assets. The asset turnover of wine enterprises increased by increasing the volume of sales, but this dependence is very weak. Apparently others, various factors affect turnover of assets. The speed of turnover of invested capital is determined by the period of "maturation" of the now viewed as a stage of its life cycle. Another factor that may also affect the turnover of the assets of the wine enterprise is the age structure of vineyards. Investments in vineyards are characterized by a long period of "frozen capital". As a productive asset vineyards its turn after the fourth year of planting. Most wine companies managed to improve the age structure of possess them vineyards thanks to EU financial assistance in the sector. However, this reflects on a lower return on invested capital.

According to the theoretical model the amount of capital invested should have a negative impact on turnover of assets. Perform research shows straight relevance between these two factors. Degree of dependence is weak. This can be explained by the increase in fixed capital, which is required in achieving the production of higher quality products. Wine enterprises due to the highly competitive environment rely on product policy as it takes place mainly product quality. This leads to more sales. The growth in sales explains the positive impact of invested capital on turnover of assets in the wine enterprises.

Table 2. Statistical relevance between: sales and turnover of assets; equity and turnover of assets.
Source: own survey among 55 wine enterprises, 2019.

Statistical indicators	Driver - total sales in thousands BGN	Driver - equity in thousands BGN
Multiple R	0.131516	0.18313
R square	0.017297	0.033537
Adjusted R Square	-0.00125	0.015301
Degree of relevance	weak	weak
Type of relevance	(+) / positive	(+) / positive
Regression coefficient b0	-3.70422	-3.82306
Regression coefficient b1	0.000176	0.0002

Table 3 shows the results of the last stage of the statistical analysis of the factors influencing the economic profitability of wine enterprises.

It was found that the profitability of sales impact greatly on the economic profitability, respectively, the correlation coefficient is 0.96. The established relationship between examined factors is positive. With the increase in the profitability of sales by 1%, the Return of wine enterprises grew by 0.96%. Explore the relevance between the turnover of assets and economic profitability is also positive. With growth of turnover of assets by 0.8%, the return grew by 1%. This gives reason to believe that on raising the economic profitability of businesses affect profitability as sales and turnover of assets.

Table 3. Statistical relevance between return of sales and economic rent ability; turnover of assets and economic rent ability. Source: own survey among 55 wine enterprises, 2019.

Statistical indicators	Driver - return of sales%	Driver - turnover of assets
Multiple R	0.955785	0.800742
R square	0.913525	0.641188
Adjusted R Square	0.911894	0.634418
Degree of relevance	very strong	strong
Type of relevance	postive	postive
Regression coefficient b0	-11.8839	-2.72245
Regression coefficient b1	76.2729	14.5332

Conclusion

The economic profitability of wine enterprises is most largely determined by the impact the profitability of sales and turnover of assets. Profitability of sales is the main determinant of economic profitability of enterprises. It is influenced by the amount of incurred marketing costs in the sector. The focus is to develop and follow an adequate product and pricing policy. The product policy wine enterprises paramount importance is maintaining the quality of the final product, but in the price right down the psychological price. Maintaining the quality of the products requires an increase of fixedt capital used in production, which results in higher fixed costs that need to be consistent with market price.

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