Original Article

The relative indicators of profitability measurement in economic organizations

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Abstract

In the traditional analysis of a company's performance, profitability rates are very important and can be used both to delimit the profitable area of companies in a certain field of activity and to make comparisons with both companies in the same field of activity and with past or expected budgeted performance. At the level of tobacco companies, and especially medium and large, these rates are used to provide managers, shareholders, creditors, the public and financial analysts with an eye-catching picture of the performance of these companies.

Regardless of the field in which the enterprise operates, its major objective is to increase both the wealth of the participants in its life (shareholders, employees, creditors, and the state) and increase the value of the enterprise in order to ensure its own development.

The purpose of this paper is to identify and test the existence of a link between the different information that can be extracted from various levels of the enterprise and the level of profitability under its various forms of expression in relative or abstracted sizes.

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Introduction

A rate of return is expressed as a ratio between a form of expression of profit and assets, capital or a flow of activity. The main operational ratios in the enterprise's financial analysis are: economic profitability rate, financial rate of return, trade rate of return, and rate of return on consumed resources (1).

In the traditional analysis of a company's performance, profitability rates are very important and can be used both to delimit the profitable area of companies in a certain field of activity and to make comparisons with both companies in the same field of activity and with past or expected budgeted performace. At the level of tobacco companies, and especially medium and large, these rates are used to provide managers, shareholders, creditors, the public, and financial analysts with an eye-catching picture of the performance of these companies (2-4).

Discussion

Rate of commercial profitability

The commercial return rate characterizes the effectiveness of commercial policy (supply, sales, storage) and the company's pricing policy. Depending on the scope of the analysis, this indicator uses the gross operating surplus, operating result, net result of the exercise or trade margin. Accordingly, the rate of commercial profitability refers to the current, operating or total activity (in which case the net profit is used) (3-5).

$$\text{Rc} = \frac{\text{Pr}}{\text{CA}} \times 100, \ \text{Rc} = \frac{\text{EBE}}{\text{CA}} \times 100, \ \text{Rc} = \frac{\text{Rexpl}}{\text{CA}} \times 100,$$

Where: Rc - rate of commercial profitability   EBE - gross operating surplus

Rcn - Net commercial profitability rate   Profit net of net turnover

CA - net turnover   Rexpl - operating result

The advantage of this rate is that it can only be calculated based on profit and loss account data, being easy to calculate. Gros smargin profitability is another gross profit margin against the cost of services provided under Note 4 of the balance sheet, showing how much of the turnover achieved remains to cover distribution costs and Sales, general administration expenses and operating result related to the expeditions delivered (6, 7).

$$R_{Mb} = \frac{\text{MB}}{\text{CA}} \times 100 = \frac{\sum g_i \, rmb_i}{100}$$

Where: RMb - Gross margin of sales,   MB - Gross margin on sales,

Gi - Net turnover on products, Gross margins on products

Another way of calculating this rate of return highly used in foreign economic literature is the Return On Sales Ratio (ROS) which is expressed as the ratio between net profit (Pn) and turnover (CA):

$$ROS = \frac{Profit\ net}{Cifra\ de\ afaceri} \times 100$$

This rate has the advantage of being very easy to calculate on the basis of the results account but it has a low informational value because the net profit is influenced by the extraordinary financial result and the fiscal policy. So the rate of net commercial profitability is a preferred performance indicator for investors on the Romanian capital market. In order to have a pertinent and relevant image it is necessary to study the trend of this rate over a period of 3-5 years compared to the average rate at the level of the tobacco industry and the rate of profitability of the other companies in the tobacco industry according to the study conducted (8).

In the case of commercial profitability, it is interesting to look at how a correlation can be made between the evolution of the top companies and the field they belong to. The rate of return on consumed resources reflects the correlation between the result of the turnover and the total sales costs and characterizes the cost effectiveness. The rate of return on resource consumption is also seen as cost-effectiveness (9).

The most used calculation method for the rate of return on consumed resources is the one calculated at the turnover level.

$$Rrc = \frac{Pr}{Ch} \times 100$$

Where: Rrc - rate of profitability of consumed resources, Ch - Turnover related expenses

Another variation is the rate of profitability of the consumed resources:

$$Rrc = \frac{Rez\ expl}{Ch\ expl} \times 100$$

Where: Excerpt - result of exploitation,   Ch expl - operating expenses

The last rate can be broken down into categories of operating expenses based on the information provided by the financial statements and the management accounting: by function (production,

commercial, financial) by nature (material expenses, wage costs), dependence on production volume (Variable and fixed), by the way of identifying and apportioning the expenses (direct and indirect) to the bearers. The profitability of consumed resources correlates the profit obtained with the expenses incurred to obtain it (10-12).

Rate of economic profitability

The rate of economic return offers an image, independent of the financial structure (ie the fiscal policy of taxing profits and depreciation as well as the performance of the activity or the extraordinary elements), depending on the elements that come into its composition as follows:

$$\text{Re} = \frac{\text{EBE}}{\text{AT}} \times 100\,, \ \ \text{Re} = \frac{\text{Rex}}{\text{Ae}} \times 100\,,\, , \ \ \text{Re} = \frac{\text{Pb}}{\text{AT}} \times 100$$

Where: Revenue of economic profitability   Pb - gross profit

Rex - operating result   Ae - operating assets

EBE - Gross operating surplus   At - total assets

This rate allows the evaluation of the performance achieved in the current (production and commercial) activity, being considered the expression of the company's management capacity to ensure efficient operation management. For calculating this rate, the origin of the equity (own or lent) invested in the company is disregarded (13-15).

The first way of calculating the rate expresses the extent to which the company has the ability to generate sufficient surplus to cover the cost of (the) borrowed capital, the economic and financial risk borne by the creditors, the depreciation of the means used in the production and marketing process, the financing growth of the enterprise. The rate of return calculated by the second model reflects the extent to which the result of the operation is sufficient to finance the demand for current and non-current assets in operating activities (16).

The rate of economic return must, however, be appreciated in relation to the inflation rate. A rate of economic return superior to the inflation rate can ensure the preservation of the enterprise's economic substance and even the renewal and growth of its economic assets in a shorter period. In fact, the rate of economic return must pay the capital invested, at least at the interest rate level, plus the economic and financial risk that those who placed the capital in the company have assumed (17).

A particularly useful indicator is Return on Assets (ROA), as an expression of the ratio between the pre-tax and interest earnings and total assets.

Where: EBIT - profit before interest and taxes, TA - total assets

The users of the information provided by this rate are the capital providers. Financial lenders, for example, are the most interested persons in the company's profitability before interest declines.

Financial profitability rate

The rate of financial return expresses the correlation between profit and capital in their capacity of financing the activity and the analysis of this rate can be achieved:

The analysis of the rate of return on equity of equity reflects the correlation between net profit as shareholder remuneration and equity of the company. This is known in international theory and practice as ROE - Return on Equity.

$$Rf = \frac{Pn}{Kp} \times 100$$

Where: Rf - rate of financial return; Kp - equity; Pn - net profit;

This indicator highlights the rate of equity compensation, through the global management of the company, including financial and extraordinary management, more precisely, it signals the ability of the company's management to secure the return of the capital that was entrusted to it for management by various shareholders (18, 19).

A high financial return rate will allow to create a balance between the dividend distribution rate and the self-financing rate, making it possible to meet the expectations of those who want to be remunerated for their venture capital and growth expectations, While respecting the company's financial and financial balance. The rate of financial profitability is affected by the accounting rules underlying the determination of net profit and mainly by the fiscal elements and the financial structure of the company and to a large extent by the degree of indebtedness. The company's indebtedness exerts positive effects on financial profitability, making the financial investments of the various investors attracted by the company.

The rate of financial return can also be calculated using the following model:

$$Rf = \frac{CAF}{Kp}$$

Where: Rf   – rata rentabilității financiare, CAF   – capacitatea de autofinanțare;

This model expresses the possible increase in equity during the period prior to the eventual decision to distribute part of the net result of the year in the form of dividends or other private leases. In the rate of financial profitability, other result indicators such as: undistributed or retained earnings or dividends distributed as dividends may be used in the numerator. It is noticed that financial returns pay shareholders either by dividends or in the form of increases in reserves, which represent an increase in owners' wealth by incorporating them into the company's capital (20-22).

Major shareholders, often making a long-term placement, will not expect immediate returns in the form of dividends and are primarily concerned with a satisfactory result even if it is preserved in the company as it will generate a share value increase. For this category of shareholders, the Net Earnings per Share or Earnings per Share, as a direct expression of the company's profitability, is based on the net profit earned by the Company. Minority shareholders will be interested in obtaining a short-term return and therefore a dividend immediately calculated as follows:

$$\text{Dividend pe actiune} = \frac{\text{Dividende}}{\text{Numarul de actiuni emise}}$$

Financial Return on Equity (ROE) is another effective tool for analyzing the profitability evolution of tobacco companies, used both globally and in Romania by most large and medium sized companies active in the sector and beyond. In interpreting the ROE, account should be taken of the cost of equity in Romania, especially the level of investment, mostly realized through internal and external growth of equity (23, 24).

The financial profitability of permanent capital, calculated as a ratio between gross and permanent capital, is often used given that a significant part of the investments are made on the basis of medium-term loans, especially at the level of top companies.

$$\text{Rf}_{\text{perm}} = \frac{\text{Pb}}{\text{Kperm}} \times 100$$

Where: Rfperm - rate of return on permanent capital; Kperm - the permanent capital; Pb - gross profit. We can conclude that the analysis of profitability rates also plays a central role in the tobacco companies in Romania.

The main limit of these rates of return in the performance characterization at microeconomic level is generated by the fact that it is calculated on the basis of the accounting profit, so it will be significantly influenced by the accounting policies and practices used by the enterprise (Fixed Asset Depreciation Method, Inventories, provisioning policy, etc.) (25, 26).

Analysis of the profitability threshold and exploitation risk assessment

The profitability threshold or the critical point is also for tobacco companies that activity level (turnover) that totally absorbs the production costs and own needs of a period and the resulting result is null. Exceeding this level, the business's activity becomes profitable. The economic risk will be lower as the deadweight will be lower (27).

Determination of the profitability threshold is done in physical units, value or for each important client in part taking into account the product structure. To determine the profitability threshold of the tobacco industry in physical units:

$$\text{Spr} = \frac{\text{CF}}{\text{mcv}}$$

Where: Spr - the physical volume of services rendered to achieve the profitability threshold expressed in number of ordered orders, Mcv - unit margins on variable costs or gross accumulated gross margin per product unit. To determine the profitability threshold in units of units, the profitability threshold in volume (Spr) is multiplied by the unit tariff (t), obtaining the following relationship:

$$\text{CApr} = \text{Spr} \times t = \frac{\text{CF}}{\text{MCV\%}}$$

Where: MCV - margins rate on variable costs. In the decision making process, it is of particular interest to establish the profitability threshold in days, meaning the calendar date at which the profitability threshold is reached:

$$\text{Pr}_{\text{zile}} = \frac{\text{CApr}}{\text{CArealizat a}} \times 360$$

For enterprises producing a single assortment or products homogeneous in terms of expression in physical units (m, t, pcs, etc.), the profitability threshold is calculated on the basis of:

$$\text{CA} = \text{ChT}, \text{ respectiv } q \times p = q \times c_v + \text{CF}$$

Where: CA - turnover;   P - sale price; CF - fixed costs.

ChT - Total Expenses;   Q - the physical volume of sales;

From the above equation it follows that the volume of production at the critical point will be:

$$Qcr = \frac{CF}{p - c_v}$$ Where: p-cv - unit gross margin over variable cost (mbv)

The profitability threshold is recorded when the gross gross margin against variable costs (Mbv) is equal to the total amount of fixed costs.

$$Mbv = q_v \times mbv$$

This method of analyzing the profitability threshold is very useful for companies both for the forecasts of the number of products to be produced on each activity sub-category or for each important project / customer and for calculating individual or global thresholds at the level Of these companies to be profitable, by enabling information such as:

- the turnover for which the result is null;
- the amount of profit achievable at a given increase in turnover;
- the size of the turnover that will lead to the desired profit;
- the amount of turnover needed to maintain a certain profit while increasing fixed costs.

Analysis of the profitability threshold is also a method of assessing the operating risk. The following indicator sets are added to other indicators.

Position indicator. This indicator can be determined in absolute size, and in relative size.

The indicator expresses the ability of an enterprise to adapt to market requirements. The higher the value, the lower the operating risk, and the firm is able to adapt its product offer to market demand (28-30).

The coefficient of elasticity (e). The indicator measures the sensitivity of the results obtained by the enterprise to the dynamics of the volume of activity.

$$e = \frac{\dfrac{\Delta R}{R}}{\dfrac{\Delta CA}{CA}} \qquad\qquad e = \frac{\dfrac{R_1 - Rcr}{R_1}}{\dfrac{CA_1 - CAcr}{CA_1}} = \frac{CA_1}{CA_1 - CAcr}$$

Referring to the profitability threshold, ie a volume of activity for which the result is zero, the coefficient of elasticity is presented above. Therefore, the coefficient of elasticity is dependent on the level of production sold above the profitability threshold. The higher the production volume over the critical output, the lower the elasticity coefficient and the lower the operating risk (31-33).

The risk of exploitation, ie the coefficient of elasticity, is even lower, as the turnover achieved is higher than the profitability threshold, which also determines a more comfortable position of the company in relation to the market requirements. The coefficient of elasticity is even lower as the turnover achieved is higher than the profitability threshold, which also leads to a more comfortable position of the firm with the market requirements. If the coefficient of elasticity is negative, a value closest to zero reflects a higher operating risk (34-36).

When an enterprise uses credits to finance operating activities, it is necessary to take into account the cost of borrowing in determining global risk. Use of attracted sources generates a variation in company results, resulting in a financial risk, which adds to the operating risk. In this way, for a certain level of activity, interest on the credits used is assimilated to fixed expenses. Both the analysis of the profitability threshold and the business and financial risk analysis of the firm are necessary for the decision-making process regarding the use of the economic-financial potential or the investment decisions, the preparation of the business plans, but also for informing the business partners with Look at the performance of the company (37, 38).

Conclusions

The notion of performance is in different ways, and the ways of measuring it have changed over time to profitability, profit, and even treasury.

Performance must always be related to the objectives set by the entity. Performance appraisal is important because it provides decision support to managers in all activities: planning, organization, control and coordination. Any measure of performance can be used as a tool to control it. In order to quantify the performance of a company, it is imperative not only to use financial results, but rather an overall picture of the correlations between internal and external parameters, quantitative and qualitative, technical and human, physical and financial management. Therefore, users have to focus on the overall performance of the company and not just the financial performance.

Regardless of the field in which the enterprise operates, its major objective is to increase both the wealth of the participants in its life (shareholders, employees, creditors, the state) and increase the value of the enterprise in order to ensure its own development.

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