

## MEASURES TO INCREASE THE RATES OF RETURN BASED ON THE DIAGNOSIS ANALYSIS ON FACTORS

CĂRUNTU CONSTANTIN

PHD. PROFESSOR, „CONSTANTIN BRÂNCUȘI” UNIVERSITY OF TG-JIU,  
ROMANIA, [caruntu\\_ctin@yahoo.com](mailto:caruntu_ctin@yahoo.com)

LĂPĂDUȘI MIHAELA LOREDANA

PHD ASSISTANT PROFESSOR, „CONSTANTIN BRÂNCUȘI” UNIVERSITY OF TG-JIU,  
ROMANIA, [lapadusi.mihaela@yahoo.com](mailto:lapadusi.mihaela@yahoo.com)

### **Abstract**

*The efficiency of the economic and financial activity represents the condition of maintaining and developing the activity of any economic operator, this being dimensioned in the mechanism of the market economy developing the operator's capacity to obtain profit. In a market economy, the rational economic activity is the activity that generates profit which represents the expression of earning money obtained through an operation, an action or on profitable activities. Profitability is one of the most synthetic forms of expressing the efficiency of the economic activity of a company, respectively of all production means used and of labor force, taking into account all the stages of the economic circuit: supply, production and sale.*

*The goal of this article is to highlight some of the increasing measures of the rates of return, analyzing each rate both theoretically and practically, highlighting their role and importance in developing the activity of the economic operator.*

**Key words:** *profitability, economic rate of return, financial rate of return, commercial rate of return, resources consumed rate of return, increasing measures;*

**JEL CLASIFFICATION:** *D2 - Production and Organizations*

### **1. Introduction**

The analysis and interpretation of the analysis rates is performed based on the analyst's position and on the problems to be solved within a company. The analysis of a rate involves analyzing the relationship between sizes or levels interlinked characterizing the overall situation or the sectors of activity. The relationship must be significant and the elements involved in the calculation must be comparable and linked by a cause – effect relationship, its result being expressed as a percentage. Depending on the purpose of analyzing the rates of return there can be used the following rates of return: the economic rate of return which highlights aspects related to the company's assets and results, the financial rate of return that shows aspects related to equity and results, the commercial rate of return which presents aspects related to production sold, prices and cost of goods and the consumed resources rate of return.

The advantage of the rates' method is to make comparisons over time and space while ascertaining whether or not they met the planned objectives for a certain period of time (the rational use of material, financial and human resources, the profit and productivity increase) and to predict the evolution and the general trends of the company's activity for a future period.

In order to measure profitability there are two categories of indicators: the profit and the rates of return. The absolute size of profitability is reflected by the profit and the extent to which capital or the use of company's resources bring profit is reflected by the rate of return. As indicators, which reflect in absolute size the profitability, we take into account: the result related to turnover, the operating result, the financial result, the current result, the extraordinary result, the gross result, the net result. For expressing, in relative size, the profitability we use the following rates: the commercial rate of return, the consumed resources rate of return, the economic rate of return and the financial rate of return.

## 2. Body of the paper

### 2.1. The literature

In literature, the concepts of profitability and rates of return appear in several ways, these being addressed and analyzed from different points of view. Thus, we present some of the definitions of the two terms that are significant in the activity of the operator.

**Profitability** is defined as the capacity of an enterprise to obtain profit, as a positive difference between the proceeds from the private activity (CA) and the costs due to manufacturing, marketing and the main transaction (costs). Profitability depends on the company's activity (the volume and the quality of the offer, the unit cost, the performance of marketing and management, etc.) and on exogenous factors, independent of the company (the level of prices formed on the market, the volume and dynamics of demand, the consumers' preferences, the competition intensity etc.). The return is appreciated under absolute aspect (as the mass of profit) and relative aspect (as a rate of return) on the product, the company and the industry sometimes. Profitability is also a form of macroeconomic efficiency which reflects the net effects (results) obtained per unit of effort (expense) with production factors. [7]

**The return** appears as a crucial tool in the mechanism of the market economy, in the production orientation, in relation to the requirements of individual or productive consumers. This involves obtaining revenues higher than expenses after the sale and collection of manufactured products. Thus, profitability reflects the entity's capacity to produce profit. The owner and user of inputs that can be individual or collective is the one interested in providing this capacity. Integrated into the disclosing system of the economic and financial potential of the company, profitability represents essential information for banks, creditors and business partners. [6]

**The rate of return** represents a relationship between an indicator of results (profit or loss) and an indicator reflecting a workflow (net turnover, resource consumption etc.) or a "stock" (equity, total assets, etc). [17]

By definition, **the rate of return** is a report that has as numerator a form of expressing the profit and as denominator the assets, the capitals or a workflow. [16]

The literature presents an analysis of the rates of return both from structural and factorial point of view, two analysis methods that show many positive and negative aspects of the company's activity.

### 2.2. Theoretical aspects related to rates of return

In addition to the detailed study of the profitability of the company, its management subsystem requires a series of data that are comparable and can be used either inside the company, to make, for example, comparisons between different profit centers, or outside of it, to refer to other businesses or branch environments, national, international, etc.. These comparisons are made possible through the rates of return. [16]

The relationship for calculating the rate of return is:

$$R = \frac{\text{Rezultat}}{\text{Stoc sau Flux de activitate}} \cdot 100 \quad (1)$$

**Because:** [11]

➤ *the recorded result* can be expressed through: operating result, value added, gross operating surplus, gross profit, net profit, operating profit, dividends;

➤ *the workflow* through: turnover, consumed resources;

➤ *the stock size through:* equity, permanent capital, total assets, fixed assets;

**It results** diverse models that can be used to analyze the rate of return of an operator.

**The profit** gives general guidance on an economic activity, meaning that revenues are greater than expenses. Therefore, it does not always show the effort to get these results as there may be similar economic agents with a different volume of activity that obtain the same size of the profit. The rates of return have the following aspects: [11]

- the rate of return is a relative measure that expresses the degree to which capital as a whole brings profit;
- on the overall economic and financial indicators, the rate of return is among the most efficient synthetic indicators of the business activity;

- the level of profitability rates reflects the results of the company in all the stages of the economic circuit; compared with the costs that reflect the results of the production stage, the rate of return synthesizes also the distribution stage;

- the rates of return, unlike the profit, allow comparative analysis in space between units similar as profile but with a different workload.

The rate of return compares the final effect, the profit, with the effort done. Depending on the reporting base, the rate of return takes different content and shape. Below are presented the main models used in their analysis.

### 2.2.1. The economic rate of return analysis

**The economic rate of return** measures the total assets performance of the company without taking into account how the capital allocated for the establishment of this asset is purchased (owned or borrowed). For this reason, it is said that the economic rate of return is independent of the financing policy promoted by the company. [3]

**The economic rate of return** reflects the relationship between an economic result and the economic means employed to achieve it. It expresses the efficiency of the commercial activity of the company, providing the link between profit and net turnover.

The economic rate of return analysis shows many aspects regarding the company's management: [12]

- the concordance between the achieved rate of return and the objectives established depending on the company's assets and, their structure;
- the correlation between the level of investments and the market capacity assessing the size of the investment;
- the positioning of the rate of return achieved by the sector average and by other companies in the same sector;
- own dynamics and comparison with the sector and key competitors

**The economic rate of return has the following meanings:** [13]

- it shows the degree of remuneration of the company's capital, regardless of the term and the provenience source from the gross results of the activity of the company;
- it reveals how the company's management uses the financial resources in the form of capital, in order to achieve higher results;
- it measures the total asset performance, reflecting its economic results, regardless of the capital funding and tax system.

### 2.2.2. The financial rate of return analysis

**The financial rate of return** is one of the major indicators for investors and management. With this rate the investors can assess whether their investment is profitable or not. If the financial rate of return is greater than the cost of equity, then, through the work done, the company creates additional value for shareholders. [17]

The financial rate of return is dependent on the means of financing the activity, being sensitive to changes in the financial structure, especially to indebtedness. It is also influenced by the way of calculating the depreciation and provisions, the deductible and non-deductible expenses in determining the base for the income tax. [3]

The financial rate of return is an indicator that reflects the company's capacity to obtain gross or net profit by using equity. [15]

This is determined as the ratio between profit and capital in terms of value. These refer to equity and permanent capital and depending on these we have:

- the financial rate of return on equity
- the financial rate of return on permanent capital

The financial rate of return is influenced, essentially, by the existence of two factors: [4]

- a) the use of borrowed capital in the capital structure of the company;
- b) the interest expenses deductibility, through the possibility of introducing them in the business expenses (as financial expenses) and the existence of the "tax shield" effect. In addition, it is necessary for the economic rate of return to be higher than the cost of borrowed capital otherwise the use of borrowed capital becomes ineffective.

### 2.2.3. The commercial rate of return analysis

**The commercial rate of return** expresses the efficiency of the commercial activity of the company, providing the connection between profit and net turnover.

The commercial rate of return expresses the efficiency of the commercial activity of the company (supply, storage, sale) reflecting the relationship between total profit of sales and turnover in a given period of time. It is calculated as a ratio between an economic result (EBE, operating profit or profit related to turnover) and turnover. [15]

Literature considers as a limit for this rate the fact that it is being computed based on the accounting profit, its size is influenced both by policies and accounting practices out of which: the policy of forming provisions, the valuation ways of inventories, the property depreciation method, the methodology of calculating the deductible expenses. [11]

In literature and business practice there are several ways of calculating the commercial rate of return, depending on the specific of the company and the purpose of the analysis, as follows:

1. the ratio between profit related to turnover and turnover multiplied by 100;
2. the ratio between operating profit and turnover multiplied by 100;
3. the ratio between net profit and turnover multiplied by 100.

Regardless of the method of calculation, the objective of the analysis of these rates is to explain the evolution of this indicator and the factors that determine this evolution. An increase in the commercial rate of return related to the operating activity reflects a positive situation and the financial possibility of renewal of the mining equipment of the company.

#### 2.2.4. The consumed resources rate of return analysis

The resources consumption efficiency is appreciated with the help of the consumed resources rate of return by comparing it with the results obtained from the activity. The main action factors on this rate are: the physical volume of production sold, product costs and the average selling prices.

**By definition, the consumed resources rate of return** reflects the ratio between the result related to turnover and the total costs of sales. [16]

**The consumed resources rate of return**, also known as the rate of return on costs, reflects the correlation between profit related to turnover and total costs of sales. According to many specialists, the consumed resources rate of return should be between 9% and 15%. [6]

The consumed resources rate of return is expressed as a ratio between a certain economic result and the expenses performed for it. It is important to the business managers who need to make efficient use of the available resources. Thus, we consider the following rates: [4]

**1. the return on operating expenses** that can be determined as a ratio between the gross operating surplus and the difference between operating expenses, amortization expenses and operating expense provisions (Ce-A-Cpe).

**2. the return on expenses related to turnover** determined as a ratio between profits related to turnover and total costs. Based on this computation method it results that the change in the consumed resources rate of return is explained directly by the change in the structure of production sold, cost of goods and selling prices without VAT on products categories.

#### 2.3. The methodology for analyzing the rates of return

The methodology for analyzing the rates of return uses primarily the factorial diagnosis analysis which highlights the evolution of these rates and the main factors influencing this development so as finally to be able to make decisions on measures to increase these rates. In other words, the objective of the factorial diagnosis analysis of the rates of return is to determine the correlation between different influencing factors (internal or external, direct or indirect) and the indicator analyzed and finding solutions for business recovery and improved future performance. Users of this analysis are mainly the economic operators, the financial institutions lending, the shareholders, the state etc.

The main methods of analysis used in the factorial diagnosis analysis of the rates of return are presented below.

##### A. The economic rate of return

**The basic economic rate of return model** is based on the ratio between gross profit and total assets, reflecting the total assets performance and the economic results obtained.

$$Re = \frac{Pb}{At} \cdot 100 \quad (2)$$

where:

Pb-gross profit;  
At – total assets.

##### B. The financial rate of return

**The basic financial rate of return model** starts from the ratio between profit and capital as the financing sources of the company's activity.

$$R.f = \frac{Pr}{K} \cdot 100 \quad (3)$$

where:

Rf – financial rate of return;  
Pr - profit;  
K – capital in terms of value.

➤**The synthetic model of analyzing the financial rate of return on equity is:**

$$R.f = \frac{Pn}{Kpr} \cdot 100 \quad (4)$$

where: Pn - net profit; Kpr - equity;

One of the multiplicative models for the analysis of the financial rate of return on equity based on the basic model is as follows:

$$R f = \left( \frac{Vt}{At} \cdot \frac{At}{Kpr} \cdot \frac{Pn}{At} \right) \cdot 100 \quad (5)$$

where:

Vt – total revenues;

At – total assets;

$\frac{Vt}{At}$  - rotation speed of the total asset, expressed in number of turns;

Kpr - equity;

$\frac{At}{Kpr}$  - indebtedness of the company;

Pn - net profit;

$\frac{Pn}{At}$  - net profit at 1 RON total assets;

►The synthetic model of analyzing the financial rate of return on permanent capital is:

$$R f = \frac{Pb}{Kper} \cdot 100 \quad (6)$$

where:

Pb – gross profit;

Kper – permanent capital.

Starting from the basic model, one of the multiplicative models for the analysis of the financial rate of return on permanent capital is:

$$R f = \left( \frac{CA}{Kper} \cdot \frac{Pb}{CA} \right) \cdot 100 \quad (7)$$

where:

$\frac{CA}{Kper}$  - turnover at 1 leu permanent capital;

$\frac{Pb}{CA}$  - gross profit at 1 leu turnover;

### C. The commercial rate of return

The literature and economic practices present and use many computation methods for the commercial rate of return depending on the specific of the company and the analysis's objective, thus:

$$1. R c = \frac{\text{Pr ofitul aferent cifrei de afaceri}}{\text{Cifra de afaceri}} \cdot 100 \quad (8)$$

$$2. R c = \frac{\text{Pr ofitul aferent exploatării}}{\text{Cifra de afaceri}} \cdot 100 \quad (9)$$

$$3. R c = \frac{\text{Pr ofitul net}}{\text{Cifra de afaceri}} \cdot 100 \quad (10)$$

Regardless of the method of calculation, the objective of the analysis of these rates is to explain the evolution of this indicator and the factors that determine this evolution. An increase in the commercial rate of return corresponding to operating activities reflects a positive financial situation and the possibility of renewal of the mining equipment of the company.

### D. The consumed resources rate of return

It reflects the ratio between the result related to turnover and total costs.

It can have several forms: [4]

►the rate of return on operating expenses can be determined:

$$R ce = \frac{EBE}{Ce - A - Cpe} \cdot 100 \quad (11)$$

where:

EBE – gross operating surplus;

Ce - operating expenses;

A – amortization expenses;

Cpe – operating provisions expenses.

►the rate of return on expenses related to turnover:

$$R c = \frac{\text{Pr}_{af.CA}}{CT} \cdot 100 \quad (12)$$

where:

$Pr_{af.CA}$  - profit related to turnover;

CT- total costs

## 2.4. The adoption of measures to increase the rates of return based on the factorial diagnosis analysis

### 2.4.1. The factorial diagnosis of the economic rate of return

During the diagnosis of the economic rate of return, the factorial diagnosis analysis helps to determine its deviation from a reference level that can be: default (previous period) or predicted or planned. To achieve the factorial diagnosis analysis of the economic rate of return there will be used the data from the following table:

Table no. 1

No. crt.	Indicator	Year N	Year N+1	Deviation
1.	Fixed assets	37.522.392	44.140.608	+6.618.216
2.	Current assets	53.465.518	49.646.050	-3.819.468
3.	Total assets	91.334.998	94.011.589	+2.676.591
4.	Gross profit	1.678.892	2.221.219	+542.327
5.	Operating profit	4.885.308	4.058.658	-826.650
6.	Financial profit	-3.206.416	-1.837.439	-1.368.977
7.	Extraordinary profit	0	0	0

Starting from the synthetic model of the economic rate of return  $Re = \frac{Pb}{At} \cdot 100$  the factorial explanation is as follows:

I. Deviation of the economic rate of return:

$$\Delta Re = Re_1 - Re_0 = \left( \frac{Pb_1}{At_1} - \frac{Pb_0}{At_0} \right) \cdot 100 = \left( \frac{2.221.219}{94.011.589} - \frac{1.678.892}{91.334.998} \right) \cdot 100 = +0,53\% \quad (13)$$

II. Measuring the influence of factors:

1. Influence of total assets:

$$\Delta_{At}^{Re} = \left( \frac{Pb_0}{At_1} - \frac{Pb_0}{At_0} \right) \cdot 100 = \left( \frac{1.678.892}{94.011.589} - \frac{1.678.892}{91.334.998} \right) \cdot 100 = -0,052\% \quad (14)$$

1.1. Influence of fixed assets:

$$\begin{aligned} \Delta_{Ai}^{Re} &= \left( \frac{Pb_0}{Ai_i + Ac_0} - \frac{Pb_0}{Ai_0 + Ac_0} \right) \cdot 100 = \left( \frac{1.678.892}{44.140.608 + 53.465.518} - \frac{1.678.892}{37.522.392 + 53.465.518} \right) \cdot 100 = \\ &= \left( \frac{1.678.892}{97.606.126} - \frac{1.678.892}{90.987.910} \right) \cdot 100 = -0,125\% \end{aligned} \quad (15)$$

1.2. Influence of current assets:

$$\begin{aligned} \Delta_{Ac}^{Re} &= \left( \frac{Pb_0}{Ai_i + Ac_i} - \frac{Pb_0}{Ai_i + Ac_0} \right) \cdot 100 = \left( \frac{1.678.892}{44.140.608 + 49.646.050} - \frac{1.678.892}{44.140.608 + 53.465.518} \right) \cdot 100 = \\ &= \left( \frac{1.678.892}{93.786.658} - \frac{1.678.892}{97.606.126} \right) \cdot 100 = +0,07\% \end{aligned} \quad (16)$$

2. Influence of gross profit:

$$\Delta_{Pb}^{Re} = \left( \frac{Pb_1}{At_1} - \frac{Pb_0}{At_1} \right) \cdot 100 = \left( \frac{2.221.219}{94.011.589} - \frac{1.678.892}{94.011.589} \right) \cdot 100 = +0,58\% \quad (17)$$

2.1. Influence of operating profit:

$$\Delta_{Pe}^{Re} = \left( \frac{Pe_1}{At_1} - \frac{Pe_0}{At_1} \right) \cdot 100 = \left( \frac{4.058.658}{94.011.589} + \frac{4.885.308}{94.011.589} \right) \cdot 100 = -0,88\% \quad (18)$$

2.2. Influence of financial profit:

$$\Delta_{Pf}^{Re} = \left( \frac{Pf_1}{At_1} - \frac{Pf_0}{At_1} \right) \cdot 100 = \left( \frac{-1.837.439}{94.011.589} - \frac{-3.206.416}{94.011.589} \right) \cdot 100 = +1,46\% \quad (19)$$

2.3. Influence of extraordinary profit:

$$\Delta_{Pext}^{Re} = \left( \frac{Pext_1}{At_1} + \frac{Pext_0}{At_1} \right) \cdot 100 = 0 \quad (20)$$

III. To check, we use the relation:

$$\Delta Re = \Delta_{At}^{Re} + \Delta_{pb}^{Re} \quad (21)$$

$$+0,53 = (-0,052) + 0,58$$

From the above figures we notice that the change in the economic rate of return for year N+1 compared to the one registered in year N shows an increase of 0,53% that was influenced by the following factors:

- the variation of total assets in year N+1 in comparison with year N shows an increase of 2.676.591 lei which determines a change in the economic rate of return of -0,052%;
- the variation of gross profit in year N+1 towards year N with +542.327 lei determines a positive change in the economic rate of return of 0,58%.

As measures of increasing the economic rate of return we can mention:

- the acceleration of the rotation speed of business assets by improving the operating assets and the efficiency of the main categories of assets;
- the increase of the share of fixed assets;
- the increase of the share of active fixed assets;
- the reduction of the time and costs of investments in progress;
- the reduction of the stocks of current assets and the duration in days of one rotation of them;
- the increase of the turnover;
- the modification of production sold by increasing the share of products with higher commercial profitability;
- the increase of the delivery prices due to the improvement of products' quality;
- the reduction of the supply, operating and marketing costs;
- the increase of the physical volume of production which will have the effect of reducing unit costs due to the influence of fixed costs.

**The increase of the economic rate of return can be obtained in the following conditions:** [3]

- $I_{AF} > I_{AI}$  – improving the structure of fixed assets by increasing the share of intangible assets
- $I_{CA} > I_{AF}$  – modification of turnover to advance the change in fixed assets; it must take place the increase of turnover obtained per unit value of fixed assets;
- $I_{St} < I_{AC}$  – improving the structure of current assets in conjunction with increased production capacity utilization;
- $I_{CA} > I_{St}$  – accelerating the rotation speed of stocks, meaning increasing turnover per unit value of stocks;
- $I_{RE} > I_{CA}$  – increasing the share of operating income in turnover.

#### 2.4.2. The factorial diagnosis of the financial rate of return on equity and permanent capital

The explicative model  $R_f = \left( \frac{Vt}{At} \cdot \frac{At}{Kpr} \cdot \frac{Pn}{At} \right) \cdot 100$  highlights three important factors that influence the financial rate of return on equity: the rotation speed of total assets, the indebtedness of the company and the net profit for 1 leu total assets. The data needed for the factorial diagnosis analysis of the financial rate of return on equity are presented in the table below:

Table no. 2

Nr. crt.	Indicator	Year N	Year N+1	Deviation
1.	Total revenues	105.103.567	121.189.852	+16.086.285
2.	Total assets	91.334.998	94.011.589	+2.676.591
3.	Equity	49.852.104	50.480.806	+428.702
4.	Permanent capital	50.231.574	50.593.952	+362.378
5.	Net profit	1.277.179	1.519.485	+242.306
6.	Gross profit	1.678.892	2.221.219	+542.327
7.	Turnover	97.803.747	101.288.324	+3.484.577

I. Deviation of the financial rate of return on equity:

$$\Delta R_f = R_{f_1} - R_{f_0} = \left[ \left( \frac{Vt_1}{At_1} \cdot \frac{At_1}{Kpr_1} \cdot \frac{Pn_1}{At_1} \right) - \left( \frac{Vt_0}{At_0} \cdot \frac{At_0}{Kpr_0} \cdot \frac{Pn_0}{At_0} \right) \right] \cdot 100 = \quad (22)$$

$$= \left[ \left( \frac{121.189.852}{94.011.589} \cdot \frac{94.011.589}{50.480.806} \cdot \frac{1.519.485}{94.011.589} \right) - \left( \frac{105.103.567}{91.334.998} \cdot \frac{91.334.998}{49.852.104} \cdot \frac{1.277.179}{91.334.998} \right) \right] \cdot 100 =$$

$$= (0,038802 - 0,029481) \cdot 100 = +0,92\%$$

## II. Measuring the influence of factors:

## 1. Influence of the rotation speed of total assets:

$$\Delta_{\frac{Vt}{At}}^{Rf} = \left[ \left( \frac{Vt_1}{At_1} - \frac{Vt_0}{At_0} \right) \cdot \frac{At_0}{Kpr_0} \cdot \frac{Pn_0}{At_0} \right] \cdot 100 = \left[ \left( \frac{121.189.852}{94.011.589} - \frac{105.103.567}{91.334.998} \right) \cdot \frac{91.334.998}{49.852.104} \cdot \frac{1.277.179}{91.334.998} \right] \cdot 100 = +0,35\% \quad (23)$$

## 2. Influence of the indebtedness of the company:

$$\Delta_{\frac{At}{Kpr}}^{Rf} = \left[ \frac{Vt_1}{At_1} \cdot \left( \frac{At_1}{Kpr_1} - \frac{At_0}{Kpr_0} \right) \cdot \frac{Pn_0}{At_0} \right] \cdot 100 = \left[ \frac{121.189.852}{94.011.589} \cdot \left( \frac{94.011.589}{50.480.806} - \frac{91.334.998}{49.852.104} \right) \cdot \frac{1.277.179}{91.334.998} \right] \cdot 100 = +0,05\% \quad (24)$$

## 3. Influence of the net profit at 1 leu total assets:

$$\Delta_{\frac{Pn}{At}}^{Rf} = \left[ \frac{Vt_1}{At_1} \cdot \frac{At_1}{Kpr_1} \cdot \left( \frac{Pn_1}{At_1} - \frac{Pn_0}{At_0} \right) \right] \cdot 100 = \left[ \frac{121.189.852}{94.011.589} \cdot \frac{94.011.589}{50.480.806} \cdot \left( \frac{1.519.485}{94.011.589} - \frac{1.277.179}{91.334.998} \right) \right] \cdot 100 = +0,52\% \quad (25)$$

## III. To check this we have the relation:

$$\Delta R f = \Delta_{\frac{Vt}{At}}^{Rf} + \Delta_{\frac{At}{Kpr}}^{Rf} + \Delta_{\frac{Pn}{At}}^{Rf} \quad (26)$$

$$0,92\% = 0,35\% + 0,05\% + 0,52\%$$

The increase in the financial rate of return on equity in year N+1 compared to year N with 0,92% has been influenced by the following factors:

- the variation of total assets in year N+1 compared to year N has determined a modification in the financial rate of return of +0,35%;
- the variation of the indebtedness of the company in year N+1 towards year N has determined a positive change in the financial rate of return on equity of 0,05%;
- the variation of net profit at 1 leu total assets in year N+1 compared to year N has determined a positive change in the financial rate of return on equity of 0,52%.

Based on the explicative model  $R f = \left( \frac{CA}{Kper} \cdot \frac{Pb}{CA} \right) \cdot 100$  the factorial explanation of the financial rate of return on

permanent capital is done as follows:

## I. Deviation of the financial rate of return on permanent capital:

$$\begin{aligned} \Delta R f = R f_1 - R f_0 &= \left[ \left( \frac{CA_1}{Kper_1} \cdot \frac{Pb_1}{CA_1} \right) - \left( \frac{CA_0}{Kper_0} \cdot \frac{Pb_0}{CA_0} \right) \right] \cdot 100 = \\ &= \left[ \left( \frac{101.288.324}{50.593.952} \cdot \frac{2.221.219}{101.288.324} \right) - \left( \frac{97.803.747}{50.231.574} \cdot \frac{1.678.892}{97.803.747} \right) \right] \cdot 100 = +1,04\% \end{aligned} \quad (27)$$

## II. Measuring the influence of factors:

## 1. Influence of turnover at 1 leu permanent capital:

$$\Delta_{\frac{CA}{Kper}}^{Rf} = \left[ \left( \frac{CA_1}{Kper_1} - \frac{CA_0}{Kper_0} \right) \cdot \frac{Pb_0}{CA_0} \right] \cdot 100 = \left[ \left( \frac{101.288.324}{50.593.952} - \frac{97.803.747}{50.231.574} \right) \cdot \frac{1.678.892}{97.803.747} \right] \cdot 100 = +0,09\% \quad (28)$$

## 2. Influence of gross profit at 1 leu turnover:

$$\Delta_{\frac{CA}{Kper}}^{Rf} = \left[ \frac{CA_1}{Kper_1} \cdot \left( \frac{Pb_1}{CA_1} - \frac{Pb_0}{CA_0} \right) \right] \cdot 100 = \left[ \frac{101.288.324}{50.593.952} \cdot \left( \frac{2.221.219}{101.288.324} - \frac{1.678.892}{97.803.747} \right) \right] \cdot 100 = +0,95\% \quad (29)$$

## III. To check this we use the relation:

$$\Delta R f = \Delta_{\frac{CA}{Kper}}^{Rf} + \Delta_{\frac{CA}{Kper}}^{Rf} + \Delta_{\frac{CA}{Kper}}^{Rf} \quad (30)$$

$$1,04\% = 0,09\% + 0,95\%$$

The increase in the financial rate of return on permanent capital in year N+1 compared to year N by 1,04% was influenced by the following factors:

- the variation of turnover at 1 leu permanent capital in year N+1 compared to year N determined a change in the financial rate of return of +0,09%;
- the variation of gross profit at 1 leu turnover in year N+1 compared to year N determined a change in the financial rate of return of +0,95%.

As measures to increase the financial rate of return we mention:

- the improvement of the structure and the increase of the commercial profitability rate per unit;
- the reduction of the operating and commercial expenses;
- the price increase;
- the change in the fiscal policy;
- the maximization of the year result based on the increase in the activity volume and on the improvement of the margins;
- the increase of the return on total assets by using tangible assets and the reduction in the need of working capital;

▪ the improvement of the financial structure by increasing indebtedness, provided that the economic rate of return is higher than the interest rate.

Practically, it is considered as an optimum level for the financial rate of return a rate of 25%.

### 2.4.3. The diagnosis of the commercial rate of return

The **commercial rate of return** expresses the efficiency of the commercial activity of a company providing a link between profit and net turnover. The data required for the commercial rate of return calculation are presented in the table below:

Table no. 3

Nr. crt.	Indicator	Year N	Year N+1	Deviation
1.	Turnover	97.803.747	101.288.324	+3.484.577
2.	Net profit	1.277.179	1.519.485	+242.306
3.	Profit related to turnover	3.883.151	1.826.194	-2.056.957
4.	Operating profit	4.885.308	4.058.658	-826.650

$$a) R_{rc} = \frac{P_{CA}}{CA} \cdot 100 \quad (31)$$

1. Deviation of the commercial rate of return:

$$\Delta R_{rc} = R_{rc_1} - R_{rc_0} = \left( \frac{P_{CA1}}{CA_1} - \frac{P_{CA0}}{CA_0} \right) \cdot 100 = \left( \frac{1.826.194}{101.288.324} - \frac{3.883.151}{97.803.747} \right) \cdot 100 = -2,17\% \quad (32)$$

II. Measuring the influence of factors:

1. Influence of turnover:

$$\Delta_{CA}^{R_{rc}} = \left( \frac{P_{CA0}}{CA_1} - \frac{P_{CA0}}{CA_0} \right) \cdot 100 = \left( \frac{3.883.151}{101.288.324} - \frac{3.883.151}{97.803.747} \right) \cdot 100 = -0,14\% \quad (33)$$

2. Influence of profit related to turnover:

$$\Delta_{P_{CA}}^{R_{rc}} = \left( \frac{P_{CA1}}{CA_1} - \frac{P_{CA0}}{CA_1} \right) \cdot 100 = \left( \frac{1.826.194}{101.288.324} - \frac{3.883.151}{101.288.324} \right) \cdot 100 = -2,03\% \quad (34)$$

Based on this diagnosis, we can state that the commercial rate of return has decreased in year N+1 compared to year N by 2,17%, while the two influencing factors, turnover and profit related to turnover, negatively influenced this rate by -0,14% and -2,03%.

$$b) R_{rc} = \frac{P_{Expl}}{CA} \cdot 100 \quad (35)$$

1. Deviation of the commercial rate of return:

$$\Delta R_{rc} = R_{rc_1} - R_{rc_0} = \left( \frac{P_{Expl1}}{CA_1} - \frac{P_{Expl0}}{CA_0} \right) \cdot 100 = \left( \frac{4.058.658}{101.288.324} - \frac{4.885.308}{97.803.747} \right) \cdot 100 = -0,99\% \quad (36)$$

II. Measuring the influence of factors:

1. Influence of turnover:

$$\Delta_{CA}^{R_{rc}} = \left( \frac{P_{Expl0}}{CA_1} - \frac{P_{Expl0}}{CA_0} \right) \cdot 100 = \left( \frac{4.885.308}{101.288.324} - \frac{4.885.308}{97.803.747} \right) \cdot 100 = -0,17\% \quad (37)$$

2. Influence of operating profit:

$$\Delta_{P_{Expl}}^{R_{rc}} = \left( \frac{P_{Expl1}}{CA_1} - \frac{P_{Expl0}}{CA_1} \right) \cdot 100 = \left( \frac{4.058.658}{101.288.324} - \frac{4.885.308}{101.288.324} \right) \cdot 100 = -0,82\% \quad (38)$$

This analysis model reveals a decrease of 0,99% in the commercial rate of return, observing that the two factors, turnover and operating profit, adversely affect the commercial rate of return.

$$c) R_{rc} = \frac{P_n}{CA} \cdot 100 \quad (39)$$

1. Deviation of commercial rate of return:

$$\Delta R_{rc} = R_{rc_1} - R_{rc_0} = \left( \frac{P_{n1}}{CA_1} - \frac{P_{n0}}{CA_0} \right) \cdot 100 = \left( \frac{1.519.485}{101.288.324} - \frac{1.277.179}{97.803.747} \right) \cdot 100 = +0,19\% \quad (40)$$

II. Measuring the influence of factors:

1. Influence of turnover:

$$\Delta_{CA}^{R_{rc}} = \left( \frac{P_{n0}}{CA_1} - \frac{P_{n0}}{CA_0} \right) \cdot 100 = \left( \frac{1.277.179}{101.288.324} - \frac{1.277.179}{97.803.747} \right) \cdot 100 = -0,04\% \quad (41)$$

2. Influence of net profit:

$$\Delta_{P_n}^{R_{rc}} = \left( \frac{P_{n_1}}{CA_1} - \frac{P_{n_0}}{CA_1} \right) \cdot 100 = \left( \frac{1.519.485}{101.288.324} - \frac{1.277.179}{101.288.324} \right) \cdot 100 = +0,23\% \quad (42)$$

The commercial rate of return analysis, based on the model that shows the ratio between turnover and net profit, highlights the fact that it increased in year N+1 compared to year N by 0,19%, while the two factors influenced as follows: turnover by -0,04% and net profit by +0,23%.

The main increasing measures for the commercial rate of return are:

- the improvement of the production structure by increasing the share of products with a high commercial rate of return per unit;
- the decrease of unit costs by reducing consumption of natural resources through the efficient use of resources and better technology;
- the increase in prices correlated with increased sales;
- the increase in the enterprise bargaining power with suppliers and obtaining favorable supply prices;
- the acceleration of inventory turnover;
- the cost optimization.

#### 2.4.4. The factorial diagnosis of the consumed resources rate of return

The data necessary for the factorial diagnosis of the consumed resources rate of return are presented in the table below:

Table no. 4

Nr. crt.	Indicator	Year N	Year N+1	Deviation
1.	Gross operating surplus	6.721.938	7.162.189	+440.251
2.	Operating costs	99.457.278	114.917.186	+15.459.908
3.	Amortization costs	2.740.550	2.909.451	+168.901
4.	Expenses with operating provisions	0	0	0
5.	Profit related to turnover	3.883.151	1.826.194	-2.056.957
6.	Total costs	93.920.614	99.462.130	+5.541.516

##### 1. The rate of return on operating expenses

$$R_{ce} = \frac{EBE}{Ce - A - Cpe} \cdot 100 \quad (43)$$

I. Deviation of the rate of return of operating expenses:

$$\Delta R_{ce} = R_{ce_1} - R_{ce_0} = \left( \frac{EBE_1}{Ce_1 - A_1 - Cpe_1} - \frac{EBE_0}{Ce_0 - A_0 - Cpe_0} \right) \cdot 100 = \left( \frac{7.162.189}{112.007.735} - \frac{6.721.938}{96.716.728} \right) \cdot 100 = -0,56\% \quad (44)$$

II. Measuring the influence of factors:

1. Influence of operating costs:

$$\Delta_{Ce}^{R_{ce}} = \left( \frac{EBE_0}{Ce_1 - A_0 - Cpe_0} - \frac{EBE_0}{Ce_0 - A_0 - Cpe_0} \right) \cdot 100 = \left( \frac{6.721.938}{112.176.636} - \frac{6.721.938}{96.716.728} \right) \cdot 100 = -0,96\% \quad (45)$$

2. Influence of amortization costs:

$$\Delta_A^{R_{ce}} = \left( \frac{EBE_0}{Ce_1 - A_1 - Cpe_0} - \frac{EBE_0}{Ce_1 - A_0 - Cpe_0} \right) \cdot 100 = \left( \frac{6.721.938}{112.007.735} - \frac{6.721.938}{112.176.636} \right) \cdot 100 = +0,00009\% \quad (46)$$

3. Influence of costs with operating provisions:

$$\Delta_{Cpe}^{R_{ce}} = \left( \frac{EBE_0}{Ce_1 - A_1 - Cpe_1} - \frac{EBE_0}{Ce_1 - A_1 - Cpe_0} \right) \cdot 100 = \left( \frac{6.721.938}{117.826.637} - \frac{6.721.938}{117.826.637} \right) \cdot 100 = 0\% \quad (47)$$

4. Influence of gross operating surplus:

$$\Delta_{EBE}^{R_{ce}} = \left( \frac{EBE_1}{Ce_1 - A_1 - Cpe_1} - \frac{EBE_0}{Ce_1 - A_1 - Cpe_1} \right) \cdot 100 = \left( \frac{7.162.189}{117.826.637} - \frac{6.721.938}{117.826.637} \right) \cdot 100 = +0,37\% \quad (48)$$

The decrease in the consumed resources rate of return in year N+1 compared to year N of 0,56% was influenced by the following factors:

- the variation of operating costs in year N+1 compared to year N with +15.459.908 lei determined a change in the consumed resources rate of return of -0,96%;
- the variation of amortization costs in year N+1 compared to year N with +168.901 lei determined a positive change in the consumed resources rate of return of 0,00009%;
- the variation of gross operating surplus in year N+1 compared to year N with +440.251 lei determined a positive change on the rate of 0,37%.

**2. The rate of return on expenses related to turnover:**

$$R_c = \frac{Pr_{af.CA}}{CT} \cdot 100 \quad (49)$$

I. Deviation of rate of return on expenses related to turnover:

$$\Delta R_c = R_{c_1} - R_{c_0} = \left( \frac{Pr_{af.CA1}}{CT_1} - \frac{Pr_{af.CA_0}}{CT_0} \right) \cdot 100 = \left( \frac{1.826.194}{99.462.130} - \frac{3.883.151}{93.920.614} \right) \cdot 100 = -2,30\% \quad (50)$$

II. Measuring the influence of factors:

1. Influence of total costs:

$$\Delta_{CT}^{R_c} = \left( \frac{Pr_{af.CA0}}{CT_1} - \frac{Pr_{af.CA_0}}{CT_0} \right) \cdot 100 = \left( \frac{3.883.151}{99.462.130} - \frac{3.883.151}{93.920.614} \right) \cdot 100 = -0,23\% \quad (51)$$

2. Influence of profit related to turnover:

$$\Delta_{Pr_{af.CA}}^{R_c} = \left( \frac{Pr_{af.CA1}}{CT_1} - \frac{Pr_{af.CA_0}}{CT_1} \right) \cdot 100 = \left( \frac{1.826.194}{99.462.130} - \frac{3.883.151}{99.462.130} \right) \cdot 100 = -2,07\% \quad (52)$$

In the case of the two rates, we observe a decrease of 0,56% in the rate of return on operating expenses and a decrease of 2,30% in the rate of return on expenses related to turnover.

The main measures of increasing the consumed resources rate of return are:

- improvement of the sold products structure by increasing the percentage of products which have the consumed resources rate of return higher than the average per enterprise;
- reduction of costs per unit of product;
- increase in the sales prices, which can occur only by increasing the product quality and in conjunction with the evolution of the relationship between supply and demand for such goods;
- increase in turnover at 1 leu variable costs if the turnover index is greater than the index variable costs;
- increase in turnover at 1 leu fixed costs if the turnover index is greater than the index of fixed costs;
- increase in the commercial rate of return if the operating result index is greater than the turnover index.

## 2.6. Conclusions

The characterization of the economic and financial performance requires the use of the information provided by the rates of return. The quality of the decisions and the actual presentation of the results offered by the diagnosis analysis of the rates of return depend on the quality of information offered by them, which have to be relevant, reliable and comparable.

Profitability is one of the most synthetic forms of expression of a company's economic efficiency and the rate of return is the ratio between a result and a stock or workflow comparing the final effect, the profit, with the effort in this regard.

The rates of return measure the company's economic and financial performance and appear as numeric expressions of some dynamic realities and the more their economic content and, above all, the accurate reflection of this reality, are more adequate for the work, the rates system better fulfills its purpose and role to make decisions and take measures of improvement or recovery of the economic and financial activity of the company.

The results of this research have resulted in the presentation of the four rates of return, respectively, the economic rate of return, the financial rate of return on equity and permanent capital, the commercial rate of return, the consumed resources rate of return, using the most popular models for analysis and, based on the factorial diagnosis analysis, it was established the influence of these rates so as eventually to present the key measures to increase them.

We believe that this research cannot present all aspects of the rates of return which are subject to research, so we appreciate that further studies can give other explanations that would improve the quality of this research.

## 4. References

- [1]Anthony E. Boardman, David H. Greenberg, Aidan R. Vining, David L. Weimer, Analiza cost – beneficiu. Concepte și practică, ediția a II - a, Ed. ARC, Chișinău, 2004;
- [2]Avare Ph., G.Legros, L.Ravary, P.Lemonnier, Gestione și analiză financiară, Ed.Economică, București, 2002;
- [3]Buglea Alexandru, Popa Ion Lala, Analiză economico-financiară, Ed. Mirton, 2009, Timișoara;
- [4]Bușe Lucian, Analiză economico-financiară, Ed. Economică, București, 2005;
- [5]Brezeanu Petre (coordonator), Analiză financiară, Ed. Meteor Press, București, 2007;
- [6]Căruntu Constantin, Lăpăduși Mihaela Loredana, Analiza economico-financiară la nivel microeconomic. Concepte.Metode.Tehnici., Ed. Universitaria, Craiova, 2010;
- [7]Dobrotă Niță, Dicționar de economie, Ed. Economică, București, 1999;

- [8] **Erich A. Helfert**, Techniques of Financial Analysis - a guide to value creation, Ed. BMT, 2006;
- [9] **Gheorghiu Anca**, Analiză-diagnostic și evaluarea întreprinderii, Ed. Victor, București, 2010;
- [10] **Jessua Claude, Christian Labrousse, Daniel Vitry, Damien Gaumont**, Dicționar de Științe Economice, Ed. ARC, Chișinău, 2006;
- [11] **Păvăloaia Willi, Păvăloaia Daniel**, Analiza economico-financiară, Ed. Tehnopress, Iași, 2009;
- [12] **Petcu Monica**, Analiza economico-financiară a întreprinderii, Ed. Economică, București, 2009;
- [13] **Popa Ion Lala, Miculeac Melania**, Analiză economico-financiară, Ed. Mirton, Timișoara;
- [14] **Popescu Dan Dumitru**, Creating value through company analysis, H'ART Publishing Science, Bucharest, 2007;
- [15] **Simion Mirela Dalia**, Analiză economico-financiară, Ed. Universitaria, Craiova;
- [16] **Spătaru Liviu**, Analiza economico-financiară, instrument al managementului întreprinderilor, ed. a doua, Ed. Economică, București, 2010;
- [17] **Vâlceanu Gheorghe, Robu Vasile, Georgescu Nicolae**, Analiză economico-financiară, Ed. Economică, București, 2005;
- [18] **Țole Marin, Matei Cristina, Iatan Elena, Elefterie Liana**, Analiza economico-financiară a entităților economice. Metode, tehnici și modele, Ed. Pro Universitaria, București, 2006;
- [19]\*\*\* [www.economice.ro](http://www.economice.ro)
- [20]\*\*\* [www.reviste.ase.ro](http://www.reviste.ase.ro)
- [21]\*\*\* [www.capital.ro](http://www.capital.ro)