

THE DISCLOSURE OF THE CONVERSION OF VOLUME AND UTILIZATION OF FIXED CAPITAL IN THE COMMERCIAL RATE OF RETURN

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ABSTRACT: *The efficiency and sustainability in a competitive economy are provided also by the extent to which the company has a material potential whose technical and operational parameters meet the new requirements of market economy. The management of creating value at the enterprise level requires selecting from a range of alternative investments that variant that incubated the most likely probability to increase the value of the firm. The fixed capital of the company is a production factor with a significant role in the performances of economic efficiency of it. The fixed capital incorporates a certain qualitative level of the production technologies and its effectiveness will depend decisively on the degree of physical and moral wear and also by the degree to which production capacity is used. At company level, economic efficiency is called return and, if the ratio between effect and effort is expressed as a percentage, is called rate of return. The key element of a company's profitability is the profit which, in its various forms, is taken into account in determining the different rates of return. The objective of any enterprise is to achieve maximum benefit and profitability of capital invested with the view to ensure its development and compensation of those who made capital investments. The profitability is one of the synthetic forms of expressing the efficiency of the entire financial-economic activities of the enterprise, respectively of all the means of production used and labor force, in all stages of economic circuit: supply, production and sales.*

KEY WORDS: *fixed capital; commercial rate of return; rate of return of resources consumed; efficiency; productivity; economic profitability; financial profitability*

JEL CLASIFICATION: *D24, D61, E22*

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1. INTRODUCTION

Any company, regardless of the profile and size, the socio-economic space in which it operates, must constantly prove the viability, competitive ability and adaptation, economic and financial performance, especially since the classical mechanism of market economy are formed and will work with all the rigors of that are involved. As economy develops, fixed capital items are subject to multiple changes in the processes related to business activity: formation of new capital, renewal and modernization of the existing ones, depreciation or wear of fixed capital, removal from service.

The formation of new fixed capital is the result of investments, these are composed of the total expenses made by the company for the development of the production capacity (capital inputs). Such investments serve as an engine for economic growth, they have as a source a part of the benefit (profit) obtained by the producers and by the depreciation fund.

Economic efficiency of the use of fixed capital is given by the effort made for the purchase and operation, and the results or outcome from its use. The components of fixed capital put their mark on profits, mainly by the depreciation rates which directly affect the production cost and product quality which is reflected in the sale price. The increase of physical production has the role to amplify the difference between the selling price and the production cost, which is just the annual profit obtained from the product concerned. For the formulation of relevant conclusions is recommended the calculus dynamics indicators mentioned above, and the quantification of the influence of direct and indirect factors, within the information available. In terms of its technical, productive and investment content, the capital comprises those reproductive assets which condition the continuous and efficient production of economic goods that have to be maintained to assure the necessary rate of the economic activity.

The management theory and practice demonstrate that the main objective of any organization is to increase efficiency. In this context, the functions of the financial management require building a system of rates of return that, through structure and content, represents a useful and powerful tool for business. To meet its aspirations, the use rates of return implies complying with some basic conditions: the formulation of rates as characteristic for the phenomenon studied, ensuring the comparability of rates and prudent interpretation of the rates.

In case of the study that we conducted we paid special attention to the commercial rate of return and to the rate of return in terms of volume consumed from the perspective of volume and use of fixed capital.

2. THE DISCLOSURE OF THE CONVERSION OF VOLUME AND UTILIZATION OF FIXED CAPITAL (FIXED ASSETS) IN THE COMMERCIAL RATE OF RETURN

The level of this ratio represents the synthetic and obvious measure of the level of profitability given by the company in its production and trade activity. It advantages

the interests of owners and managers showing their contribution in the procurement of the company's performances.

The analysis of the relation between the volume and utilization of fixed capital (fixed assets) with the commercial rate of return can be done by optimizing the following analysis model:

$$\bar{R}_c = \left(1 - \frac{C_v + A + C_{f'}}{Tu \cdot \bar{r}} \right) \cdot 100 \quad (1)$$

or

$$\bar{R}_c = \left[1 - \left(\frac{C_v}{Tu \cdot \bar{r}} + \frac{A}{Tu \cdot \bar{r}} + \frac{C_{f'}}{Tu \cdot \bar{r}} \right) \right] \cdot 100 \quad (2)$$

where:

\bar{R}_c - the economic rate of return;

C_v - the amount of the variable expenses afferent to turnover;

A - suma amortizării mijloacelor fixe aferente cifrei de afaceri;

$C_{f'}$ - the amount of other fixed expenses without depreciation ;

Tu - the work time of industrial equipments ;

$\bar{r} = \frac{CA}{Tu}$ - the average hourly yield based on turnover .

For the practical exemplification of the disclosure of the volume and utilization of fixed capital (fixed assets) in the commercial rate of return, we use the following:

Table 1.

No	Indicator	2007	2008	Change
1.	Turnover	1.648.000	2.600.000	+950.000
2.	Work time of industrial equipments - hours	800.000	1.000.000	+200.000
3.	The average hourly yield	2,06	2,6	+0,54
4.	The amount of the profit afferent to turnover	165.000	312.000	+147.000
5.	Variable costs afferent to turnover	1.039.500	1.624.480	+584.980
6.	Fixed costs afferent to turnover	445.500	663.520	+218.020
7.	Total costs afferent to turnover	1.485.000	2.288.000	+803.000
8.	The depreciation of fixed assets afferent to turnover	32.000	42.500	+10.500
9.	Other fixed expenses without depreciation	413.500	621.020	+207.520
10.	Variable costs from 2007 afferent to the turnover of 2008 $\sum q_{v_1} \cdot cv_o$	X	1.552.000	-
11.	Expenses with depreciation on products from 2007 afferent to the turnover from 2008	X	208.000	-
12.	Other fixed expenses of products from 2007 afferent to the turnover of 2008	X	560.000	-
13.	The commercial rate of return	9,89%	12%	+2,11%

The absolute change of the commercial rate of return in 2008 compared to 2007 with 2.11% is obtained as it follows:

$$\begin{aligned}
\Delta \bar{R}_c &= \bar{R}_{c1} - \bar{R}_{c0} = \left[\left(1 - \frac{Cv_1 + A_1 + Cf'_1}{Tu_1 \cdot r_1} \right) - \left(1 - \frac{Cv_0 + A_0 + Cf'_0}{Tu_0 \cdot r_0} \right) \right] \cdot 100 = \\
&= \left[\left(1 - \frac{1.624.480 + 42.500 + 621.020}{1.000.000 \cdot 2,6} \right) - \left(1 - \frac{1.039.500 + 32.000 + 413.500}{800.000 \cdot 2,06} \right) \right] \cdot 100 = \quad (3) \\
&= \left[\left(1 - \frac{2.288.000}{2.600.000} \right) - \left(1 - \frac{1.485.000}{1.648.000} \right) \right] \cdot 100 = 12 - 9,89 = +2,11\%
\end{aligned}$$

The factorial explanation of the volume and utilization of fixed assets through turnover is done by using the following influences

1. The influence of the turnover value:

$$\begin{aligned}
\Delta_{Ca}^{\bar{R}_c} &= \left[\left(1 - \frac{Cv_0 + A_0 + Cf'_0}{Tu_1 \cdot r_1} \right) - \left(1 - \frac{Cv_0 + A_0 + Cf'_0}{Tu_0 \cdot r_0} \right) \right] \cdot 100 = \\
&= \left[\left(1 - \frac{1.039.500 + 32.000 + 413.500}{1.000.000 \cdot 2,6} \right) - \left(1 - \frac{1.039.500 + 32.000 + 413.500}{800.000 \cdot 2,06} \right) \right] \cdot 100 = \quad (4) \\
&= \left[\left(1 - \frac{1.485.000}{2.600.000} \right) - \left(1 - \frac{1.485.000}{1.648.000} \right) \right] \cdot 100 = 42,88 - 9,89 = +32,99\%
\end{aligned}$$

from which:

1.1 The influence of the total work time:

$$\begin{aligned}
\Delta_{Tu}^{\bar{R}_c} &= \left[\left(1 - \frac{Cv_0 + A_0 + Cf'_0}{Tu_1 \cdot r_0} \right) - \left(1 - \frac{Cv_0 + A_0 + Cf'_0}{Tu_0 \cdot r_0} \right) \right] \cdot 100 = \\
&= \left[\left(1 - \frac{1.039.500 + 32.000 + 413.500}{1.000.000 \cdot 2,06} \right) - \left(1 - \frac{1.039.500 + 32.000 + 413.500}{800.000 \cdot 2,06} \right) \right] \cdot 100 = \quad (5) \\
&= \left[\left(1 - \frac{1.485.000}{2.060.000} \right) - \left(1 - \frac{1.485.000}{1.648.000} \right) \right] \cdot 100 = 27,91 - 9,89 = +18,02\%
\end{aligned}$$

1.2 The influence of the average hourly yield:

$$\begin{aligned}
\Delta_r^{\bar{R}_c} &= \left[\left(1 - \frac{Cv_0 + A_0 + Cf'_0}{Tu_1 \cdot r_1} \right) - \left(1 - \frac{Cv_0 + A_0 + Cf'_0}{Tu_1 \cdot r_0} \right) \right] \cdot 100 = \\
&= \left[\left(1 - \frac{1.039.500 + 32.000 + 413.500}{1.000.000 \cdot 2,6} \right) - \left(1 - \frac{1.039.500 + 32.000 + 413.500}{1.000.000 \cdot 2,06} \right) \right] \cdot 100 = \quad (6) \\
&= \left[\left(1 - \frac{1.485.000}{2.600.000} \right) - \left(1 - \frac{1.485.000}{2.060.000} \right) \right] \cdot 100 = 42,88 - 27,91 = +14,97\%
\end{aligned}$$

2. The influence of total costs:

$$\begin{aligned}\Delta_{G'}^{\bar{Rc}} &= \left[\left(1 - \frac{Cv_1 + A_1 + Cf_1'}{Tu_1 \cdot r_1} \right) - \left(1 - \frac{Cv_0 + A_0 + Cf_0'}{Tu_1 \cdot r_1} \right) \right] \cdot 100 = \\ &= \left[\left(1 - \frac{1.624.480 + 42.500 + 621.020}{1.000.000 \cdot 2,6} \right) - \left(1 - \frac{1.039.500 + 32.000 + 413.500}{1.000.000 \cdot 2,6} \right) \right] \cdot 100 = \quad (7) \\ &= \left[\left(1 - \frac{2.288.000}{2.600.000} \right) - \left(1 - \frac{1.485.000}{2.600.000} \right) \right] \cdot 100 = 12 - 42,88 = -30,88\%\end{aligned}$$

from which:

2.1. The influence of the variable costs afferent to turnover:

$$\begin{aligned}\Delta_{Cv}^{\bar{Rc}} &= \left[\left(1 - \frac{Cv_1 + A_0 + Cf_0'}{Tu_1 \cdot r_1} \right) - \left(1 - \frac{Cv_0 + A_0 + Cf_0'}{Tu_1 \cdot r_1} \right) \right] \cdot 100 = \\ &= \left[\left(1 - \frac{1.624.480 + 32.000 + 413.500}{1.000.000 \cdot 2,6} \right) - \left(1 - \frac{1.039.500 + 32.000 + 413.500}{1.000.000 \cdot 2,6} \right) \right] \cdot 100 = \quad (8) \\ &= \left[\left(1 - \frac{2.069.980}{2.600.000} \right) - \left(1 - \frac{1.485.000}{2.600.000} \right) \right] \cdot 100 = 20,39 - 42,88 = -22,49\%\end{aligned}$$

2.2. The influence of the depreciation amount (expression of the volume of the used working capital):

$$\begin{aligned}\Delta_A^{\bar{Rc}} &= \left[\left(1 - \frac{Cv_1 + A_1 + Cf_0'}{Tu_1 \cdot r_1} \right) - \left(1 - \frac{Cv_1 + A_0 + Cf_0'}{Tu_1 \cdot r_1} \right) \right] \cdot 100 = \\ &= \left[\left(1 - \frac{1.624.480 + 42.500 + 413.500}{1.000.000 \cdot 2,6} \right) - \left(1 - \frac{1.624.480 + 32.000 + 413.500}{1.000.000 \cdot 2,6} \right) \right] \cdot 100 = \quad (9) \\ &= \left[\left(1 - \frac{2.080.480}{2.600.000} \right) - \left(1 - \frac{2.069.980}{2.600.000} \right) \right] \cdot 100 = 19,98 - 20,39 = -0,41\%\end{aligned}$$

2.3. The influence of other fixed assets without depreciation:

$$\begin{aligned}\Delta_{G'}^{\bar{Rc}} &= \left[\left(1 - \frac{Cv_1 + A_1 + Cf_1'}{Tu_1 \cdot r_1} \right) - \left(1 - \frac{Cv_1 + A_1 + Cf_0'}{Tu_1 \cdot r_1} \right) \right] \cdot 100 = \\ &= \left[\left(1 - \frac{1.624.480 + 42.500 + 621.020}{1.000.000 \cdot 2,6} \right) - \left(1 - \frac{1.624.480 + 42.500 + 413.500}{1.000.000 \cdot 2,6} \right) \right] \cdot 100 = \quad (10) \\ &= \left[\left(1 - \frac{2.288.000}{2.600.000} \right) - \left(1 - \frac{2.080.480}{2.600.000} \right) \right] \cdot 100 = 12 - 19,98 = -7,98\%\end{aligned}$$

For verification we have the relation:

$$\Delta \bar{R}_c = \Delta \bar{R}_{CA} + \Delta \bar{R}_c \Rightarrow 2,11\% = 32,99\% - 30,88\% \Rightarrow 2,11\% = 2,11\% \quad (11)$$

By cutting the variables related to fixed assets in accepting the isolated action (so it enters into the combination of all factors that compete to the completion effect) it is noted that the total working time in which is reflected also the volume and the yield in value on time unit have contributed to the increase of the commercial rate of return (with 18.02% and 14.97%).

The components of costs, through which the depreciation, that express the used volume of fixed assets have determined decreases of the commercial rate of return (the increase of the amount of depreciation has an influence of -1.52%).

By separating the influence 2 which refers to the conversion of the amount of depreciation that reflects the volume and structure of fixed capital and its yield, being involved the depreciation expense at 11eu, we notice the reflection of the three issues in increasing business profitability.

3. OTHER RETURN RATES THROUGH WHICH THE THE VOLUME AND UTILIZATION OF FIXED CAPITAL ARE DISCLOSED

3.1. The disclosure of fixed capital through the economic rate of return-synthesizer

The economic profitability represents a ratio between profit and the value of volume of the company's assets. The different sizes of profit, in the case of economic profitability, refer to the profit's size before tax, this being current or operating profit, or gross operating surplus.

For the rate of return, fixed capital is showed by the following analysis model:

$$Re = \frac{Pc}{At} \cdot 100 = \frac{Pe + Pf}{Ai + Ac} \cdot 100 \quad (12)$$

$$Re = \left[\left(\frac{\bar{M}f}{At} \cdot \frac{\bar{M}fa}{\bar{M}f} \cdot \frac{Ve}{\bar{M}fa} \cdot \frac{Pe}{Ve} \right) \cdot \frac{Pf}{At} \right] \cdot 100 \quad (13)$$

$$Re = \left[\left(\frac{\bar{M}f}{At} \cdot \frac{\bar{M}fa}{\bar{M}f} \cdot \frac{Tu}{\bar{M}fa} \cdot \frac{Ve}{Tu} \cdot \frac{Pe}{Ve} \right) \cdot \frac{Pf}{At} \right] \cdot 100 \quad (14)$$

where:

Re the economic rate of return;

At - total assets;

Pe - operating profit;

Pf - financial profit;

Ai - fixed assets;

$\bar{M}f$ - average value of total fixed assets;

$\bar{M}fa$ - average value of active fixed assets;

Ve - operating revenues;

The factorial exemplification of the economic rate of return by reflecting the fixed capital through the model $Re = \left[\left(\frac{\overline{Mf}}{At} \cdot \frac{\overline{Mfa}}{Mf} \cdot \frac{Ve}{\overline{Mfa}} \cdot \frac{Pe}{Ve} \right) \cdot \frac{Pf}{At} \right] \cdot 100$ implies the following

influences:

1. The influence of the share of fixed assets in total assets:

$$\Delta \frac{Re}{\frac{Mf}{At}} = \left[\left(\left(\frac{\overline{Mf}_1}{At_1} - \frac{\overline{Mf}_0}{At_0} \right) \cdot \frac{\overline{Mfa}_0}{\overline{Mf}_0} \cdot \frac{Ve_0}{\overline{Mfa}_0} \cdot \frac{Pe_0}{Ve_0} \right) \cdot \frac{Pf_0}{At_0} \right] \cdot 100 \quad (15)$$

2. The influence of the share of active fixed assets in total fixed:

$$\Delta \frac{Re}{\frac{Mfa}{Mf}} = \left[\left(\frac{\overline{Mf}_1}{At_1} \cdot \left(\frac{\overline{Mfa}_1}{\overline{Mf}_1} - \frac{\overline{Mfa}_0}{\overline{Mf}_0} \right) \cdot \frac{Ve_0}{\overline{Mfa}_0} \cdot \frac{Pe_0}{Ve_0} \right) \cdot \frac{Pf_0}{At_0} \right] \cdot 100 \quad (16)$$

3. The influence of operating revenues at 1000 lei fixed assets:

$$\Delta \frac{Re}{\frac{Ve}{Mfa}} = \left[\left(\frac{\overline{Mf}_1}{At_1} \cdot \frac{\overline{Mfa}_1}{\overline{Mf}_1} \cdot \left(\frac{Ve_1}{\overline{Mfa}_1} - \frac{Ve_0}{\overline{Mfa}_0} \right) \cdot \frac{Pe_0}{Ve_0} \right) \cdot \frac{Pf_0}{At_0} \right] \cdot 100 \quad (17)$$

4. The influence of operating profit at 1 leu operating revenues :

$$\Delta \frac{Re}{\frac{Pe}{Ve}} = \left[\left(\left(\frac{\overline{Mf}_1}{At_1} \cdot \frac{\overline{Mfa}_1}{\overline{Mf}_1} \cdot \frac{Ve_1}{\overline{Mfa}_1} \cdot \left(\frac{Pe_1}{Ve_1} - \frac{Pe_0}{Ve_0} \right) \right) \right) \cdot \frac{Pf_0}{At_0} \right] \cdot 100 \quad (18)$$

5. The influence of financial profit at 1000 lei total assets :

$$\Delta \frac{Re}{\frac{Pf}{At}} = \left[\left(\frac{\overline{Mf}_1}{At_1} \cdot \frac{\overline{Mfa}_1}{\overline{Mf}_1} \cdot \frac{Ve_1}{\overline{Mfa}_1} \cdot \frac{Pe_1}{Ve_1} \right) \cdot \left(\frac{Pf_1}{At_1} - \frac{Pf_0}{At_0} \right) \right] \cdot 100 \quad (19)$$

3.2. The disclosure of fixed capital through the financial rate of return-synthesizer

The financial rate of return (ROE - Return on Equity) is one of the major indicators followed by investors and management. With this rate, investors can assess whether their investment is profitable or not. If the financial rate of return exceeds the cost of capital, than, by the activity, the company creates additional value for shareholders.

Similarly we will notice the impact of volume, structure and use of fixed capital (fixed assets) on the financial rate of return, of course, from this model:

$$Rf = \frac{Pn}{Cpr} \cdot 100 \quad (20)$$

where:

Pn-net profit;

Cpr-owners' equity.

According to the correlation methodology, the volume, structure and utilization of fixed capital are showed by the operating profit in the way that:

$$Pn = [(Pe + Pf + Pext) - \alpha] - I \quad (21)$$

where:

Pex - extraordinary profit;

α - deductions from the taxable income;

I - income tax

This rate is a relevant indicator in assessing the company's position on the market. An increase in the remuneration of capital invested provides: easy access to financial resources due to current owners trust to reinvest in the business and of potential investors - holders of financial resources available for investments, the capacity of development.

The analysis of the financial rate of return allows the breakdown of the influence of determinant factors and identify some significant issues to interpret the performance of the company at level of each of them, using several models of factorial analysis, according to the objectives pursued. In our case the objective is to highlight the volume and use of fixed capital, and the above model translated into a multiplicative model to highlight this objective can be detailed in the following variables:

$$Rf = \left[\left(\frac{\overline{Mf}}{Cpr} \cdot \frac{\overline{Mfa}}{Mf} \cdot \frac{Tu}{\overline{Mfa}} \cdot \frac{Ve}{Tu} \cdot \frac{Pe}{Ve} \right) + \frac{Pf}{Cpr} + \frac{Pext}{Cpr} \right] \cdot 100 \quad (22)$$

Because the first group of variable factors is connected to volume, structure (technological composition) and utilization (extensive and intensive) of assets, by using it we can make quantifications of the reflection in the financial rate of return.

So, the factorial exemplification assumes the following influences :

1. The influence of the share of average fixed assets in owners' equity:

$$\Delta \frac{Rf}{\frac{Mf}{Cpr}} = \left[\left(\left(\frac{\overline{Mf}_1}{Cpr_1} - \frac{\overline{Mf}_0}{Cpr_0} \right) \cdot \frac{\overline{Mfa}_0}{Mf_0} \cdot \frac{Tu_0}{\overline{Mfa}_0} \cdot \frac{Ve_0}{Tu_0} \cdot \frac{Pe_0}{Ve_0} \right) \right] \cdot 100 \quad (23)$$

2. The influence of the share of active fixed assets in total fixed assets:

$$\Delta \frac{Rf}{\frac{Mfa}{Mf}} = \left[\left(\frac{\overline{Mf}_1}{Cpr_1} \cdot \left(\frac{\overline{Mfa}_1}{Mf_1} - \frac{\overline{Mfa}_0}{Mf_0} \right) \cdot \frac{Tu_0}{Mfa_0} \cdot \frac{Ve_0}{Tu_0} \cdot \frac{Pe_0}{Ve_0} \right) \right] \cdot 100 \quad (24)$$

3. The influence of the utilization time of fixed assets:

$$\Delta \frac{Rf}{\frac{Tu}{Mfa}} = \left[\left(\frac{\overline{Mf}_1}{Cpr_1} \cdot \frac{\overline{Mfa}_1}{Mf_1} \cdot \left(\frac{Tu_1}{\overline{Mfa}_1} - \frac{Tu_0}{\overline{Mfa}_0} \right) \cdot \frac{Ve_0}{Tu_0} \cdot \frac{Pe_0}{Ve_0} \right) \right] \cdot 100 \quad (25)$$

4. The influence of operating revenues on time unit:

$$\Delta \frac{Rf}{\frac{Ve}{Tu}} = \left[\left(\frac{\overline{Mf}_1}{Cpr_1} \cdot \frac{\overline{Mfa}_1}{Mf_1} \cdot \frac{Tu_1}{Mfa_1} \cdot \left(\frac{Ve_1}{Tu_1} - \frac{Ve_0}{Tu_0} \right) \cdot \frac{Pe_0}{Ve_0} \right) \right] \cdot 100 \quad (26)$$

5. The influence of operating profit at 1 leu operating revenues:

$$\Delta \frac{Rf}{\frac{Pe}{Ve}} = \left[\left(\frac{\overline{Mf}_1}{Cpr_1} \cdot \frac{\overline{Mfa}_1}{Mf_1} \cdot \frac{Tu_1}{Mfa_1} \cdot \frac{Ve_1}{Tu_1} \cdot \left(\frac{Pe_1}{Ve_1} - \frac{Pe_0}{Ve_0} \right) \right) \right] \cdot 100 \quad (27)$$

6. The influence of the financial profit at 1 leu owners' equity:

$$\Delta \frac{Rf}{\frac{Pf}{Cpr}} = \left(\frac{Pf_1}{Cpr_1} - \frac{Pf_0}{Cpr_0} \right) \cdot 100 \quad (28)$$

7. the influence of the extraordinary profit at 1 leu owners' equity:

$$\Delta \frac{Rf}{\frac{Pext}{Cpr}} = \left(\frac{Pext_1}{Cpr_1} - \frac{Pext_0}{Cpr_0} \right) \cdot 100 \quad (29)$$

3.3. The disclosure of fixed capital through the rate of return of resources consumed- synthesizer

The rate of return of resources consumed is expressed as a ratio between a particular economic result and the costs incurred in obtaining it. It is called the rate of return of costs and in the literature there are views that the optimal level of the rates of return of costs are in the range of 9% -15%.

It shows interest to business managers, who must ensure efficient use of available resources. So c we we consider the following rates:

a) the rate of return of operating costs:

$$\overline{Rce} = \frac{EBE}{Ce - A - Cpe} \cdot 100 \quad (30)$$

or

$$\bar{R}_{ce} = \frac{Pe}{Ce} \cdot 100 \quad (31)$$

where:

Ce - operating costs ;

A - depreciation costs;

Cpe - costs with operating provisions.

b) the rate of return of costs afferent to turnover

$$\bar{R}_{ce} = \frac{Pr}{\sum q \cdot c} \cdot 100 \quad (32)$$

where:

Pr - profit afferent to turnover and the cost of production sold .

c) the rate of return of resources consumed :

$$\bar{R}_c = \left(\frac{Tu \cdot \bar{r}}{Cv + A + Cf'} - 1 \right) \cdot 100 \quad (33)$$

or

$$\bar{R}_c = \left[\left(\frac{Tu \cdot \bar{r}}{Cv} + \frac{Tu \cdot \bar{r}}{A} + \frac{Tu \cdot \bar{r}}{Cf'} \right) - 1 \right] \cdot 100 \quad (34)$$

Over this rate of return the costs have a double action, influencing differently the size of the numerator and of the denominator. In the case of exceeding the unitary costs, the numerator(representing turnover) is reduced and the denominator (representing total costs) increases, what shows the negative influence of this factor over the rate of return of the resources consumed to be more stronger than in the case of other rate.

The factorial explanation assumes the following influences:

1. The influence of total costs:

$$\Delta_{Cr}^{\bar{R}_c} = \left[\left(\frac{Tu_0 \cdot \bar{r}_0}{Cv_1 + A_1 + Cf'_1} - 1 \right) - \left(\frac{Tu_0 \cdot \bar{r}_0}{Cv_0 + A_0 + Cf'_0} - 1 \right) \right] \cdot 100 \quad (35)$$

From which:

1.1 The influence of variable costs :

$$\Delta_{Cv}^{\bar{R}_c} = \left[\left(\frac{Tu_0 \cdot \bar{r}_0}{Cv_1 + A_0 + Cf'_0} - 1 \right) - \left(\frac{Tu_0 \cdot \bar{r}_0}{Cv_0 + A_0 + Cf'_0} - 1 \right) \right] \cdot 100 \quad (36)$$

1.2. The influence of the amount of depreciation :

$$\Delta_A^{\bar{R}_c} = \left[\left(\frac{Tu_0 \cdot \bar{r}_0}{Cv_1 + A_1 + Cf'_0} - 1 \right) - \left(\frac{Tu_0 \cdot \bar{r}_0}{Cv_1 + A_0 + Cf'_0} - 1 \right) \right] \cdot 100 \quad (37)$$

1.3. The influence of other fixed costs:

$$\Delta_{Cf'}^{\bar{Rc}} = \left[\left(\frac{Tu_0 \cdot \bar{r}_0}{Cv_1 + A_1 + Cf'_1} - 1 \right) - \left(\frac{Tu_0 \cdot \bar{r}_0}{Cv_1 + A_1 + Cf'_0} - 1 \right) \right] \cdot 100 \quad (38)$$

2. The influence of turnover :

$$\Delta_{CA}^{\bar{Rc}} = \left[\left(\frac{Tu_1 \cdot \bar{r}_1}{Cv_1 + A_1 + Cf'_1} - 1 \right) - \left(\frac{Tu_0 \cdot \bar{r}_0}{Cv_1 + A_1 + Cf'_1} - 1 \right) \right] \cdot 100 \quad (39)$$

From which:

2.1. The influence of total work time:

$$\Delta_{Tu}^{\bar{Rc}} = \left[\left(\frac{Tu_1 \cdot \bar{r}_0}{Cv_1 + A_1 + Cf'_1} - 1 \right) - \left(\frac{Tu_0 \cdot \bar{r}_0}{Cv_1 + A_1 + Cf'_1} - 1 \right) \right] \cdot 100 \quad (40)$$

2.2. The influence of the average hourly yield:

$$\Delta_r^{\bar{Rc}} = \left[\left(\frac{Tu_1 \cdot \bar{r}_1}{Cv_1 + A_1 + Cf'_1} - 1 \right) - \left(\frac{Tu_1 \cdot \bar{r}_0}{Cv_1 + A_1 + Cf'_1} - 1 \right) \right] \cdot 100 \quad (41)$$

4. THE DISCLOSURE OF FIXED CAPITAL THROUGH THE RATE OF RETURN OF USED CAPITAL (FIXED AND WORKING) - SYNTHESIZER

The model of calculus and analysis of used capital is recommended to be the following one:

$$\bar{Rcro} = \left(\frac{CA}{Cr} \cdot \overline{pr} \right) \cdot 100 = \left[\left(\frac{\sum_{i=1}^n qvi \cdot \bar{pi}}{Mf + Ac} \right) \cdot \left(1 - \frac{\sum_{i=1}^n qvi \cdot ci}{\sum_{i=1}^n qvi \cdot \bar{pi}} \right) \right] \cdot 100 \quad (42)$$

where:

\bar{Rcro} - the rate of return of the used capital;

Cr - real-fixed- working capital;

$\frac{CA}{Cr}$ - the efficiency of real capital.

$\frac{Cr}{pr}$ - average profit at 1 leu turnover ;

qvi - the structure of the production sold;

\bar{pi} - average sale price ;

α - inflation;

$pi - \alpha$ - price less inflation effect;

csj - the physical consumption of resources on products;

pj - the aquisition price-on the resource unit .

The influences that are at the base of the model are:

1. The influence of the efficiency of the real- fixed and working capital

$$\Delta_{\frac{\bar{R}_{cro}}{C_r}} = \left[\left(\frac{CA_1}{Cr_1} - \frac{CA_0}{Cr_0} \right) \cdot \bar{pr}_0 \right] \cdot 100 \quad (43)$$

2. The influence of the average profit at 1 leu turnover :

$$\Delta_{\frac{\bar{R}_{cro}}{pr}} = \left[\frac{CA_1}{Cr_1} \cdot (\bar{pr}_1 - \bar{pr}_0) \right] \cdot 100 \quad (44)$$

From which :

2.1 The influence of the structure of the production sold :

$$\Delta_{\frac{\bar{R}_{cro}}{qvi}} = \left[\frac{CA_1}{Cr_1} \cdot (\bar{pr}' - \bar{pr}_0) \right] \cdot 100 \quad (45)$$

where:

$$\bar{pr}' = 1 - \frac{\sum_{i=1}^n qvi_1 \cdot ci_0}{\sum_{i=1}^n qvi_1 \cdot \bar{pi}_0} \quad (46)$$

2.2. The influence of sale prices on products:

$$\Delta_{\frac{\bar{R}_{cro}}{pi}} = \left[\frac{CA_1}{Cr_1} \cdot (\bar{pr}'' - \bar{pr}') \right] \cdot 100 \quad (47)$$

where:

$$\bar{pr}'' = 1 - \frac{\sum_{i=1}^n qvi_1 \cdot ci_0}{\sum_{i=1}^n qvi_1 \cdot \bar{pi}_1} \quad (48)$$

From which:

2.2.1. The influence of the sale prices on products less the inflation effect:

$$\Delta_{\alpha}^{\bar{R}_{cro}} = \left[\frac{CA_1}{Cr_1} \cdot (\bar{pr}^{(i)} - \bar{pr}') \right] \cdot 100 \quad (49)$$

where:

$$\bar{pr}^{(i)} = 1 - \frac{\sum_{i=1}^n qvi_1 \cdot ci_0}{\sum_{i=1}^n qvi_1 \cdot \bar{pi}_0 \cdot IP} \quad (50)$$

2.2.2. The influence of the sale prices on products less the inflation effect :

$$\Delta_{pi-\alpha}^{\bar{Rcro}} = \left[\frac{CA_1}{Cr_1} \cdot \left(\overline{pr}^{//} - \overline{pr}^{(i)} \right) \right] \cdot 100 \quad (51)$$

2.3. The influence of costs on products:

$$\Delta_{ci}^{\bar{Rcro}} = \left[\frac{CA_1}{Cr_1} \cdot \left(\overline{pr}_1 - \overline{pr}^{//} \right) \right] \cdot 100 \quad (52)$$

From which:

2.3.1. The influence of the physical consumption of resources on products:

$$\Delta_{csj}^{\bar{Rcro}} = \left[\frac{CA_1}{Cr_1} \cdot \left(\overline{pr}^{(csj)} - \overline{pr}^{//} \right) \right] \cdot 100 \quad (53)$$

where:

$$\overline{pr}^{(csj)} = \frac{\sum_{i=1}^n qvi_1 \cdot \sum_{j=1}^m (csj_1 \cdot pj_0)}{\sum_{i=1}^n qvi_1 \cdot \overline{pi}_1} \quad (54)$$

2.3.2. The influence of acquisition prices on the resource unit:

$$\Delta_{pj}^{\bar{Rcro}} = \left[\frac{CA_1}{Cr_1} \cdot \left(\overline{pr}_1 - \overline{pr}^{(csj)} \right) \right] \cdot 100 \quad (55)$$

5. CONCLUSIONS

The influencing factors of the efficiency of fixed assets represent growth reserves of profitability. In assessing the overall efficiency of production factors is necessary to highlight the correlations of efficiency at the enterprise level, which allow the establishment of factorial interdependencies and their intensity, identifying the measures needed for improving the performances of the company. From this point of view we have to take into consideration the following correlations:

• Dependent variable:

$\frac{P}{Mf}$ - profit at 1 leu fixed assets;

$\frac{CA}{Mf}$ - turnover at 1 leu fixed assets;

$\frac{Qf}{Mf}$ - manufactured production at 1 leu fixed assets.

• Independent variables:

$\frac{Q_f}{Q_{\max}}$ - the degree of utilization of the production capacity;

$\frac{M_{fa}}{M_f}$ - the technological composition of fixed assets;

$\frac{Q_f}{N_s}$ - labour productivity.

The character of the economic efficiency of the utilization of fixed capital is completed by the analysis of some correlation indicators as:

- the correlation between fixed capital and production- for having a better efficiency of the utilization of fixed capital is necessary that the volume of the annual production to increase in a faster rate (value) than the annual average value of fixed capital ;
- the correlation between labour productivity and technical endowment- an efficient use of fixed capital is done when we have a faster rate of increase of the index of labour productivity comparatively with the index of technical endowment with fixed capital.

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