

PERFORMANCE MEASUREMENT THROUGH FINANCIAL INDICATORS

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Abstract: : In terms of the concept of performance, the literature does not offer a unitary view on it, and therefore one may frequently encounter either singularized definitions of the concept which only take into account a number of aspects, or definitions that are too general and consequently hard to quantify. Without choosing between the modern indicators of performance measurement in companies, some principal conclusions have resulted: these indicators offer the possibility of making comparisons between companies from the same country, but also between companies located in different countries; the regular use of the EVA, MVA, TSR, CVA, CFROI and EM indicators in case studies has shown that, generally, the results are not significantly dissimilar. If differences do appear, it is because of the heterogeneous choice of the analysis periods and of the assumptions on which the reprocessing of the accounting information is based; of all the indicators used, the market value added (MVA) is the best known indicator for quantifying the companies' performances from the investor's point of view. In our paper we have tried to resume the most important indicators (especially the financial one, that are traditional and

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1. INTRODUCTION

The literature in this domain does not offer a unitary view on the concept of performance, and therefore one may frequently encounter either singularized definitions of the concept which only take into account a number of aspects, or definitions that are too general and consequently hard to quantify:

- “...everything that contributes to improving the couple cost – value...” (P. Lorino – Methodes et pratiques de la performance);

- “a state of competitiveness reached through a level of effectiveness and efficiency which ensures a lasting presence over time” (Gh. Băileșteanu – Semiotică economică);
- “the results obtained by the company in relation to the resources used” (E. Cohen – Analize financiare);

According to the Explanatory Dictionary of the Romanian Language (DEX), performance is “an extremely good result obtained in sports, in a field of practical activity etc., the best result obtained by a car, a device, etc.”

Although a frequently used concept, the notion of performance is rarely defined in an explicit way, its meaning being implicitly known.

Another definition in the English language explains the term performance as, among others, “the proportion/ measure in which an investment is profitable” (Judy Pearsall, 1999: 1060). Broadening this definition, one may consider that a company’s management is well-performing if it is capable of yielding a profit or if it is lucrative, useful, mentioning that profit does not necessarily mean a financial plus, but a gain, a benefit, an advantage or the transformed form of the capital gain, which means it can be of various nature: financial, social, humane, ecological, etc. Therefore, performance is equivalent with the obtained profit, i.e. the result of the action, and the performance evaluation with the assessment of the obtained plus.

The information about a company’s performance is necessary in order to evaluate the potential modifications of the economic resources that the entity will be able to control in the future, to anticipate the ability to generate treasury fluxes with the available resources, and to establish the efficiency with which it can employ and make use of new resources. In current practice, the information regarding financial performance are mainly given by “the profit and loss account”, respectively “the budgetary execution account”, but things are not so simple as to reduce them to the synthetic data in a certain periodic report form since it would be a pity to ignore the real - time information given by the account itself. Performance is more important than money. Money expresses a possession; performance expresses the ability to exploit the possession.

2. INDICATORS – MAIN INSTRUMENTS FOR MEASURING PERFORMANCE

An indicator is “a measure which expresses numerically one aspect or a group of aspects which characterize a phenomenon, a process or an economic activity, defined in time, space or organizational structure” (Buglea et al., 2006).

Generally, the given definitions deal with indicators as:

- numerical data which express the evolution of a key-factor;
- data which faithfully render the image of a phenomenon that is under observation;
- objective data which describe a phenomenon.

Over time, the financial analysis has used different criteria in order to evaluate the companies’ economic performance. These criteria have a dynamic character and change periodically.

- the period between 1960 – 1970: the performance criterion consisted in the size of the company, which was assessed by means of two indicators: asset value and turnover.
- the period between 1970 – 1980: performance was given by the so-called “accounting performance”, which was measured using three indicators: net profit, net profit on shares, PER (price earning ratio).
- the period between 1980 – 1990: the criterion based on which performance was assessed was “the value of the generated liquidity”, measured itself by means of various indicators of the cash flow.

The traditional period (1960 – 1990) is characterized by approaching the company's performance in growth terms, i.e. the company's ability to extend the volume of its activity (Niculescu, 1997:228). The indicators used in order to describe this growth are: exercise production, turnover, added value, analyzed in relation to the total assets, to the human and material resources, social, economic and financial profitability.

- the period between 1990 – present day: the concept of performance bends to the necessity of value creation. Value creation is a new concept which replaces the traditional one. Investors mainly keep track of the evolution of the following indicators: the profitability of the invested capital, EVA (economic value added) and MVA (market value added).

A system of indicators used in order to quantify the company's global performance must also include, beside financial indicators, which record the historical results of the activity, non-financial indicators, which record especially the qualitative aspects that generate value on a long term. We are interested in those aspects concerned with performance measuring and analyzing which constitute the basis for a polemic approach, regarding the measurement of a company's performance by means of two categories of indicators: financial and non-financial. Although the theoretical opinions in the field of analysis differ in regard to one approach or the other, practice demonstrated the necessity of approaching performance not only in terms of productivity and profitability, but also in terms of non-financial aspects which influence the increase in performance.

3. PERFORMANCE MEASUREMENT BASED ON TRADITIONAL ANALYSIS INDICATORS

3.1 RATES OF RETURN

For the creation of return rates various forms of profit indicators are reported in the case of indicators displaying the effort of the society to ensure deployment conditions of business (total assets or capital). The most common forms of return rate refer to the economic return and financial return.

The economical return rate measures the performance of the total of assets of a company, regardless of the procurement method of capital (owned or borrowed), allocated for the existence of this asset. In this respect, the economic rate of return is independent of the funding policy promoted by the company. The formula for calculating the economic rate of return is:

$$ER = \frac{GOS, OR}{TA} \times 100 \quad (1)$$

where:

GOS – Gross operating surplus;

OR – operation result;

TA –total assets.

The economic rate of return combines the operating result with the effort indicator and can be divided into a rotation rate and a margin rate to highlight the impact of asset and margin rotation acceleration on the growth of the economic return.

To obtain a more accurate value from the result of the operating activity this has to be revised as follows:

$$\text{Revised} = ER + \text{Interest} - \text{Income tax} \quad (2)$$

$$R_e = ROA = \frac{EBIT - \text{Interest}}{A1 + A2} \times 100 \quad (3)$$

R_e = ROA (Return on Assets)

EBIT = Gross profit + Interests = NP + Interest + income tax = Earnings before interest and taxes

The financial return compensates the owners of companies by offering dividends and own capital growth, in order to motivate the participation to social capital growth, for both existent and new shareholders (Buglea & Lala, 2009).

The net financial rate of return, which is remunerated directly to owners of companies by grant of dividends and reserve growth and indirectly through increased allocation of funds for company development, is calculated according to the formula:

$$R_f = \frac{Np}{Oc} \times 100 \quad (4)$$

where:

Np –net profit

Oc – own capital

The financial return rate is dependent on the modalities of funding the work, being receptive to the changes in financial structure, in particular to the grade of indebtedness. It is also influenced by the regime for the calculation of depreciation and provisions, of the insured and uninsured expenses to determine the base of the income tax calculation.

The gross financial rate of return is used instead of the net income of self-financing capacity to eliminate incidents of depreciation practices. The formula for the calculation is:

$$R_f = \frac{\text{Self-financing capacity}}{\text{Own capital}} \times 100 \quad (5)$$

3.2 RATES OF RETURN ON INVESTMENT CAPITAL

In order to be listed on stock markets, companies must meet certain performance conditions which can be analyzed by previously presented rates, but also some specific ones.

The analysis of stock market performance rates can be made on the basis of the net profit or the distributed dividends, information being destined for shareholders manifesting different interests according to each person's investment option (Buglea & Lala, 2009).

The analysis of stock market performance rates based on the net profit assumes the calculation of the following rates:

- the result (the profit or loss) per share (Rps), called also earnings per share (EPS) showing the net profit of a share. If the trend of the indicator is growing, the efficiency of the investment made by shareholders is improving. The indicator is calculated as a ratio between the net income of the result and the number of common shares (usual shares) issued and in circulation:

$$Rps = \frac{\text{Net result of the share}}{\text{Number of issued shares}} \quad (6)$$

- self-financing capacity per share (Scps) reflects own sources of funding for a share:

$$Scps = \frac{\text{Self-financing capacity}}{\text{Number of issued shares}} \quad (7)$$

- income capitalization rate (ICR) shows the net profit generated by capital invested in a share and can be calculated using two equations:

$$Icr = \frac{\text{Net profit per share}}{\text{Share rate}} \quad (8)$$

or

$$Icr = \frac{\text{Net result of the share}}{\text{Stockmarket capitalization}}$$

where:

Stock-market capitalization = last exchange rate at time of implementing x number of issued shares

- the stock market capitalization ratio (PER – price earnings ratio) is a reversed form of profit capitalization rate, which shows the number of times investors were willing to pay the net profit per share:

$$PER = \frac{\text{Share rate}}{\text{Net income per share}} \quad (9)$$

or

$$PER = \frac{\text{Stockmarket capitalization}}{\text{Net result of operation}} \quad (10)$$

- the financial rate of return per share (FROR) is followed especially by minority shareholders who are interested in cash earnings from the investing in the company's shares.

The calculation relationship takes into account both the distributed dividend for a share and the recorded extra value:

$$FROR = \frac{\text{Dividend} + (V_t - V_0)}{V_0} \quad (11)$$

where:

V_0 - value of a share at time of purchase

V_t - value of a share at the present time

The analysis of the stock-market return involves calculating the following rates:

- dividend rate (r_{div}), calculated as percentage ratio between the level of dividends (Div) and subscribed and paid in share capital (Cs) and reflects a form of a share capital rate of a company:

$$r_{div} = \frac{Div}{Cs} \quad (12)$$

Shareholders are interested by this rate as it provides information about the immediate remuneration of the capital invested by them. It is also a field of interest to prospective shareholders, indicating future possibilities of gain.

- dividend distribution rate (r_{ddiv}) shows the level of dividends per share:

$$r_{ddiv} = \frac{\text{Annual dividends}}{\text{Net result of the operation}} \quad (13)$$

- net dividend per share (D_{ra}) shows the level of dividends per share

$$D_{ra} = \frac{\text{Annual dividends distributed}}{\text{Number of shares}} \quad (14)$$

- the rate of dividend capitalization (Rdc) shows the dividend generated by the invested capital in a share:

$$Rcd = \frac{\text{Dividend per share}}{\text{Share rate}} \quad (15)$$

or

$$Rcd = \frac{\text{Total dividends}}{\text{Stockmarket capitalization}} \quad (16)$$

- dividend coverage capacity (Dcc), whose minimum level is 2,5:

$$Dcc = \frac{\text{Net result of operation}}{\text{Sum of payable dividends}} \quad (17)$$

4. CONCLUSIONS

The financial indicators are key instruments used to measure the financial performance of the companies, although the calculation basis of these indicators, historical information, is suffering from limited information level.

During this period of turmoil in the economy, companies are trying to survive and adapt to a new competitive level.

A clear and balanced frame of the company performance can only be achieved through an appropriate set of financial and non - financial indicators, contributing to the sustainability of the company and also increase the value generated by the companies' activity.

REFERENCES

1. Buglea,A.
Lala, I. Analiză economico-financiară: Ed. Mirton, Timișoara, 2009
2. Buglea, A. Diagnosticul și evaluarea întreprinderii: Ed. Mirton, Timișoara, 2010
3. Buglea, A. Analiză financiară: Ed. Mirton, Timișoara, 2006
4. Băileșteanu,
Gh. Diagnostic, risc și eficiență în afaceri: Editura Mirton, Timișoara, 1998
5. Lorino, P. Comptes et recits de la performance, Ed. D'Organisation, Paris, 1995
6. Paye,B.S.,
Timmermann
A., Wright, R. Journal of Empirical Finance: Instability of Return Prediction Models, Forthcoming, No. 13, 2006, pp. 274 – 315
7. Pearsall, J. The Concise Oxford Dictionary: Ediția a 10-a, Oxford University Press, New York, 1999