ANALYSIS OF PERFORMANCE INDICATORS USED IN INVESTMENT PROFITABILITY ASSESSMENT. CASE STUDY - COMPANIES IN THE FIELD OF BUILDINGS

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Abstract

The main objective of this paper is to identify the main indicators for measuring the return on investments, as well as how they put their mark on a company. Thus, we want to highlight what are the indicators of return on investments and how they are determined, as well as factors that can influence their positive side. The term profitability is that form of expressing economic efficiency, characterized by the ability of an entity to obtain results, profit. We must take into account the fact that the main objective of any entity is the profit obtained. If we consider this increase of the indicator, as well as the profitability, this becomes essential for the company, which thus assures its existence on the market. Profitability thus represents that indicator of income, as a result of the sale and collection according to the manufactured production, but which must be greater than the expenditure incurred.

Key words: *performance indicators, return on investments, evaluation*

JEL Classification: M20, M40, M41

I. INTRODUCTION

The term profitability is that form of expressing economic efficiency, characterized by the ability of an entity to obtain results, profit (Bordeianu, 2006). We must take into account the fact that the main objective of any entity is the profit obtained. If we consider this increase of the indicator, as well as the profitability, this becomes essential for the company, which thus assures its existence on the market. Profitability thus represents that indicator of income, as a result of the sale and collection according to the manufactured production, but which must be greater than the expenditure incurred.

II. DESCRIPTION OF THE FIELD OF OPERATION OF THE COMPANIES UNDER ANALYSIS

In order to carry out a complete and complex analysis of the return on investments, we focused on the field of activity intended for construction.(www.investopedia.com) This area gives us the opportunity to explore the usefulness of investments in such an activity, as well as the methods they use to render the efficiency of the activity. Thus, this profile mainly includes activities regarding general and special constructions for buildings, but also works related to civil aspects.

It should be noted that this section includes new works, additions, alterations, repairs, as well as the erection of these or other structures in which we also include constructions that are temporary in nature. If we refer to general constructions, they mainly include buildings for housing, offices, shops or the like, such as public or utility buildings. This area also includes civil constructions, which refer to bridges, tunnels, railways, ports, streets, highways, pipelines and power lines and others that take into account the proper functioning of the activity. Such activities can be carried out on their own account or on the basis of contracts, fees.

The chosen field of activity is presented by divisions, depending on its specificity, from which we can identify the construction of buildings, found in division 41, civil works, in division 42 and the last component that refers to special construction activities, on which we can identify it in division 43. These large classes can be found in several sections or subdivisions. Regarding the field of activity that we focused on in carrying out this analysis, it is found in

the first division, namely that which refers to the construction of buildings, which in turn may include other components.

NACE Code 41, refers to the construction of buildings of all types. In this activity we identify operations such as repairs, additions, alterations or changes on a construction, raising or elevating new ones, but also those that are temporary. We can also identify buildings of offices, shops or others of public and utilitarian character. Subdivision that this class contains are: 411 referring to real estate development and 412 residential or non-residential construction works.(http://www.coduricaen.ro/41-constructii-de-cladiri)

III.   SAMPLE CONSTRUCTION AND DATABASE FORMATION

The sample (I., Condratov, and Hapenciuc V.- Cours) based on which this analysis of the indicators will be carried out, in order to be able to highlight an evolution, is made up of a database (I., Condratov, and Hapenciuc V.- Cours) of 60 companies in the field of constructions, but it is mainly focused on subdivision 4120, which includes Building construction works. residential and non-residential. This section includes activities such as the construction of all types of residential and non-residential buildings, single-family or multi-family houses, such as high-rise buildings, buildings for industrial production, and here we refer to factories, factories, workshops. , but also buildings of public interest, hospitals, schools, shops, restaurants and many others that can lead to a better performance of activities. We should note that there are certain activities that cannot be included in this section, so we identify those regarding the erection of some constructions from already manufactured parts, but not concrete, the construction of industrial installations, with the exception of buildings, those related to of architecture or engineering, but also the management services regarding the construction projects. (https://blog.avocatoo.ro/codurile-caen-explicate-ianuarie-2017)

This area of activity implies the existence of a sustainable area of development, so that its presence in the economy reflects both an increase and the maintenance of a continuous flow of activity. We can mention the fact that this field of activity can also have a seasonal character, in the sense that there are certain periods when the flow of activity is decreasing, which can be due to several factors. This can be reproduced by a thorough analysis of the indicators, which will be determined using the data collected in the database (see Annex I). Once the results have been identified and obtained, we can say that the database represents the essential support from which to start to carry out the complex analysis of investments in this field of activity.

IV.   IDENTIFICATION AND IMPROVEMENT OF INDICATORS FOR MEASURING INVESTMENTS IN CONSTRUCTION

The indicators of return on investments, on the basis of which a comparison will be made over a period of 5 years of their evolution within the companies identified in this field of activity are identified as several groups or categories of indicators from which we can observe the following, being rendered in their abbreviated form, but also in English:

• Return on investment (ROI)
• Return on assets (ROA)
• Return on capital employed (ROCE - return on capital employed)
• Return on equity (ROE - return on equity)
• Fixed assets turnover
• Total asset turnover (total asset turnover)
• Working capital turnover
• Receivables turnover
• Rotation of debt to suppliers (payables turnover)
• Inventory turnover (see https://www.tradeville.eu/tradepedia/economic- financial-indicators).

Each profitability indicator of the investment is characterized separately, depending on the size and the destination it has within a company. Thus, these indicators denote a certain significance and are calculated separately.

Return on investments or in its abbreviated form we identify it as ROI, it is the performance indicator that helps us to measure or evaluate what is the performance of an investment or such categories of investments.

(www.investopedia.com). It helps us to measure in a direct way what is actually the value of the profit on an investment, when we compare it to the cost of the investments. In order to determine the value of this indicator, we must report the benefits of an investment at its cost. The result thus obtained is expressed either as a percentage or as a ratio. The basic formula of this indicator is:

$$ROI = \frac{(\text{current value of investment } - \text{ cost of investment})}{\text{cost of investment}}$$

In this formula, the current value of the investment, in fact, represents the income that was obtained from the sale of the investment of interest. We can note that the percentage value of this indicator allows us to make comparisons with other returns on investments, which can lead to the measurement of a variety of investment categories against each other.

Return on assets or ROA, this indicator that reflects the profitability of an entity in relation to total assets. We emphasize that this indicator helps the members of a company to get an overview of how its efficient management leads to profit. The ROA is calculated according to the following formula:

$$ROA = \frac{\text{net profit}}{\text{total assets}}$$

Also, we can mention that this indicator shows us, in basic terms, what gains are generated based on the invested capital or assets. This indicator, for public institutions, may vary substantially and may be industry dependent. So, when we use this indicator as a comparative measure, we must take into account that this comparison must be made with previous ROA figures or similar companies. (www.investopedia.com/terms/r/returnonassets.asp) The ROA figure, as it appears from the calculation, gives investors an idea of the efficiency of the company in relation to the conversion of the money it invests into the net income. The higher this figure, the better, in the sense that the entity earns more money on less investments.

Return on committed capital (ROCE), an indicator as a financial report that measures the profitability of an entity and the efficiency with which it uses the capital held. We can say that it actually reproduces how the entity generates profits from the available capital. Such an indicator is usually used by company members when selecting eligible investment candidates (see https://www.tradeville.eu/tradepedia/independent-companies- indicators). The formula is:

$$ROCE = \frac{\text{EBIT}}{\text{capital employed}}$$

In this case EBIT represents the result before interest and taxes, and the Capital employed can be calculated as follows: Total assets - current liabilities or Long-term debts + Equity.

ROCE, an indicator that can be used as a measure for comparing profitability within a trading company, based on the value of the capital it uses. Thus, two values are needed to calculate the profitability of the capital employed, namely: earnings before interest and capital employed.

The result before interest and taxes, also found under the abbreviation of EBIT, is also known as operating income, which shows us what the profits of a company are from its operations, but without taking into account its interests and taxes. It is calculated by subtracting the cost of goods sold and operating expenses and revenues. Capital is the total value that a company has used to generate profits or profits. In fact, it represents the sum of the shares that the shareholders own and their debts. However, there is a simplified way, rendered as the difference between total assets and current liabilities.

The return on capital employed is useful when comparing the performance of a company in a capital intensive sector, such as those of telecommunications or utilities. This situation may arise when other fundamental elements, such as the return on equity, only consider the common share capital of an entity, while ROCE also considers debt and other debts, which gives such companies a better deal. indication of financial performance for companies with significant debts.

Return on equity (ROE), a measure of financial performance is calculated as the ratio between net income and equity. Due to the fact that these equity are equal to the assets of the entity less the debt, this indicator can be considered as the profitability of the net assets. It is considered as a measure in which the management of assets can lead to profits. This indicator is shown as a percentage and can be determined by any company that has net income and positive equity. The company's net income is calculates before dividends are paid to normal shareholders and

after   payment   of   dividends   to   preferred   shareholders   and   credit   interest (https://corporatefinanceinstitute.com/resources/knowledge/finance/what-is-return-on-equity-roe/.

Also, a higher return on equity can be achieved as a result of a smaller material investment of the shareholders that can be turned into a big profit, the most important thing for any business, by maximizing the results felt by the shareholders as a result. of the realization of the investment. If we want to refer to the formula for determining this indicator, we can see that there are two measures by which this ROE indicator can be increased, namely, either by increasing the profit, but with the condition of keeping the same equity or decreasing the equity. , but under the same net profit. In the second way presented, we do not talk about a decrease of the equity in nominal terms, but a decrease of its share in the total assets held by the entity.

An example for this indicator refers to the fact that an entity with a higher degree of debt and a lower degree of financing from shareholders' wealth, will usually have a higher return on equity, than that of the financing obtained from shareholders. An advantage of this situation is given by obtaining a higher profit in the same investment given by the shareholders, whereas the disadvantage would be the greater risk that it can have to a dependency of the debts. The formula of this indicator can be shown as follows:

$$ROE = \frac{net\ income}{shareholder's\ equity}\ \%$$

Rotation of fixed assets, an indicator that helps us to measure the efficiency of the use of fixed or fixed assets. This indicator is very useful within a company, because it shows us the result or the profit, but from the point of view of the turnover, respectively of the money that has been invested in long-term assets. Another remark is given by how large the turnover of these assets is, so that a high value shows us that the assets are used effectively and also that each leu that has been invested in these categories of assets has a result. convenient amount obtained from sales. The calculation formula of this indicator is: Turnover / Fixed assets   (see https://www.contzilla.ro/glossary/rotatia-activului-total-total-asset-turnover/)

Total assets turnover, an indicator that shows the efficiency of the assets utilization. (Kale, 2017) Thus, this indicator is calculated as a ratio between turnover and total assets, which means how many times the assets are converted into sales within a business year or shows us how much money they get as a result of using assets that have a certain value. The formula of this indicator is shown as follows: Turnover / Total assets.

The working capital turnover, as a rule, measures the efficiency of working capital use. It should be noted that, this indicator becomes equal to the difference between current assets and short-term liabilities, due to the financing need that the company needs in the short term. Also, within a company, most of the times the short-term assets are higher than the short-term liabilities, which thus requires a partial financing of the short-term resources and a part of the long-term ones. When we talk about the long-term financing side, we are actually talking about working capital or working capital.

There may be situations where this value of working capital may be negative, and at that time, rotation is considered to be irrelevant. The indicator can be determined by the formula: Turnover / (Current assets - Current liabilities)

The rotation of receivables returns the efficiency with which an entity can collect its receivables from various clients. Regarding this indicator, we can specify that its higher value may reflect the fact that the company uses very little the method of selling by credit, so that the payments are made on the spot or that it can efficiently collect its debts. The opposite situation of the value of this indicator denotes that the entity has deficiencies in collecting the receivables in a timely manner, which can make the activity difficult and may lead to problems of liquidation or quantity of production and not least of the smaller sales. than currently. Thus, we can determine this indicator as a ratio between: Turnover / Receivables. (Kale, 2017)

Debt rotation to suppliers is the indicator that reflects how often the company pays its debts in a calendar year. Regarding its value, we cannot say that it is optimal. Specific to this indicator, we can mention that it depends on the activity of the company, so that the value obtained will reflect the need or not to solve some problems. There are several factors on which this payment of debts depends, such as the duration of the receivables, the events through which the company has passed or passed, so that the conclusions regarding this indicator must be relevant and take into account all the details. It can be determined by the formula: (Expenditure on raw materials and materials + Expenditure on goods + Other operational expenses) / Debts to suppliers, respectively Turnover / Debts to suppliers.

The rotation of stocks that reflects how often the stocks are sold or replaced within an entity over a year, which measures the efficiency of their use. Depending on the size of the activity, its value may be lower or higher. The indicator is determined by the formula: (Expenditure on raw materials and materials + Expenditure on goods) / Stocks (https://www.tradeville.eu/tradepedia/economic- financial-indicators). Due to the fact that these expenses shown in the above formula cannot be fully identified, we can still use the Turnover indicator.

Once the indicators under analysis have been identified (see Appendix II) and presented in their general form, we can make further additions so that the indicators are exactly suited to the situation analyzed, thus ensuring financial performance at the level of any company. From the set of indicators presented, the ones that will be further explored during the analysis are the return on investment, the return on assets, the return on equity, the rotation of fixed assets, the rotation of debt and debt rotation. We have chosen to present this improvement of these categories of indicators, because I believe that they are the ones that best reproduce the faithful image of the operations carried out by the companies analyzed. In this situation, based on the information obtained from the companies in the field of construction, these indicators can be calculated according to the general formula, so that it can be shown what their evolution is and what improvement practices are needed.

The profitability indicator of investments is the one that best portrays its performance, meaning that the situation in which they are profitable or not for a company can be accurately identified. Thus, it measures the value of the investment made, which is usually realized from the entity's earnings. What is profitable for a company is that the investment made is as small as possible, and the results are above their level well above the normal limit. This is why it is important to identify the period of the analysis and the factors that can influence its outcome and performance. The information provided by this indicator is conclusive, because it shows us in fact whether the money we used to make the investment, of any kind within the company, is useful for it. Specifically, it shows us whether the money spent will be recovered along the continuity of the activity.

This indicator can be used to decide how the company's budget will be spent. For example, if companies in this field of activity observe that another similar company generates a better return on investments, then they can allocate a larger amount from the budget depending on its value, as well as reducing the budget of those companies. that do not have satisfactory performance. At the same time, with the data obtained on the return on investments, entrepreneurs can improve the performance of the company or companies with poorer results. Besides the method of changing the way of determining this indicator, a method that we will present in the following rows, we can also use another method that is characterized by the conversion of the obtained values.

From the moment the measurement of conversions begins, then it is also the moment when the return on investment made is measured. At each conversion, the value obtained must be greater than the one we spent to get the values from the conversion. For example, if we purchase a machine that we needed to perform a work in the field of construction worth 1500 lei, then for the respective work we will ask the owner a value of 2000 lei, as a result of this work, the profit thus obtained is of 500 lei, which indicates that the investment made in that machine has brought us a high return.

Examples of situations in which this indicator can be used, such as in companies working on projects and in the sale process. In the first situation, the one in which we discuss projects, this indicator can be interpreted as a method of evaluation regarding the initiative in a business, to determine if it is viable. There is a situation where the project should be re-analyzed. That moment is when the ROI is at a lower level than the interest the investor could have gotten if he made a deposit in the bank. The second situation concerns the sale process, in which we have the contradictory situation with the customer who considers that the price of the product is too high. Those who calculate this indicator very well, not only know their product, but also learn the best selling arguments that will have a higher value when supported by figures. Thus, by this indicator we want to reflect on which are the best ways of determining, but also the advantages that they have in different situations. The ways in which an economic agent can make an investment are topical according to the Romanian economy and society, which present detailed aspects regarding the efficiency of an investment.

V. CONCLUSIONS

From my point of view, there are certain periods of the year in which the activity of such a company reaches lower values, but not unprofitable, in the sense that it has an influence factor such as that of the seasonal character. For this reason, we can mention that there are periods of the year in which external constructions cannot be realized due to the climate and the temperature existing at that period, which generates decreases of the annual profit. From this point of view, the method of determining this indicator is shown as a percentage, which implies the existence of the calendar year, but if we consider all the factors, we can determine that out of the 12 calendar months, the most productive would be only 9 months. This is due to the winter season, which does not allow us to build buildings and make exterior finishes, as well as other interior finishes, in case the optimal conditions for the materials used are not provided. It is very good that when a company starts its activity, it should take into account all the aspects that can significantly influence the profits that the company can obtain. In this situation, I can say that an implementation of a new form of the formula, could bring a plus to the companies and thus its true image will no longer be distorted by the existence of external factors. Thus, a reformulated formula of return on assets would be presented in the following form: Net profit / Total assets * 9/12 * 100 (%). In this situation, the value of the calculated indicator will decrease compared to the value obtained by the basic formula, so that it will present the way in which the entity manages its assets efficiently in order to obtain profit only during the active months.

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