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Basic Types of Financial Ratios Used to Measure a Company's Performance

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Abstract: *Financial ratios express relationships between financial statement items. Although they provide historical data, management can use ratios to identify internal strengths and weaknesses, and estimate future financial performance. Investors can use ratios to compare companies in the same industry. Ratios are not generally meaningful as standalone numbers, but they are meaningful when compared to historical data and industry averages.*
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Introduction

Financial ratios are powerful tools to help summarize financial statements and the health of a company or enterprise.

„Certain ratios are available to evaluate both short- and long-term financial and operational performance, making them useful at identifying trends in the business and providing warning signs when it may be time to make a change. There are also specific ratios that can measure important variables essential to one industry or another. By evaluating particular ratios, a business can benchmark itself against similar companies and understand its strengths, weaknesses, threats and areas of opportunity."[1]

Ratios are useful in the analysis for the following reasons: [2, 152]

- They allow the assessment of the financial health of the enterprise and the evaluation of the management's performances, constituting synthetic information both for the management of the enterprise and also for the shareholders, banks, financial analysts, etc.
- They allow the visualisation of an evolution provided that the period considered is long enough, at least three years, so that a future trend could be predicted for the next year based on the past evolution assuming that there will be no major changes by comparison to the previous periods.
- It facilitates comparisons to other enterprises that have the same profile or enterprises in the same branch or even comparisons to statistical data, allowing the execution of congeries and the presentation of the financial ratios levels as averages of specific economical activities.
- Ratios are essential elements of the company's scoreboard. They should be re-grouped and transcribed as simple, easy-to-read graphs adapted to the level of each person in charge, in order to clarify and synthesize all information as to facilitate decision making.
- Ratios contribute to decision making, however being recommended to use them carefully and without over appreciations based on a single ratio.

1. Liquidity Ratio

„The most common liquidity ratio is the current ratio, which is the ratio of current assets to current liabilities. This ratio indicates a company's ability to pay its short-term bills. A ratio of greater than one is usually a minimum because anything less than one means the company has more liabilities than assets. A high ratio indicates more of a safety cushion, which increases flexibility because some of the inventory items and receivable balances may not be easily convertible to cash." [3]

Based on the fact that current assets contain three elements (inventory, accounts receivables and cash – including short term financial investments) there are three liquidity ratios that can be built.

Current liquidity or „quick ratio”(according to the anglo-saxon model) can be calculated as the ratio between current assets and current liabilities:

Current Ratio = Current assets / Current liabilities

“To calculate the ratio, analysts compare a company's current assets to its current liabilities. Current assets listed on a company's balance sheet include cash, accounts receivable, inventory and other assets that are expected to be liquidated or turned into cash in less than one year. Current liabilities include accounts payable, wages, taxes payable and the current portion of long-term debt.” [4]

According to IAS1, The Presentation of Financial Statements, the general liquidity is closely linked to working capital and it is considered to be a good indicator of the company’s ability to pay its bills and repay loans.

The level of this ratio varies depending on the economic sector: it is proper in the distribution sector and almost 2 in long-cycle industrial sectors. According to international regulations, the general liquidity should be around 2 (respectively 200%).

The improper ratio means that the working capital is positive (calculated on the basis of the bottom of the balance sheet) and at the same time it allows the enterprise to deal with certain distortions that may occur in the movement of the current assets.

The proper ratio means that short term liabilities are not covered by current assets and the working capital has a negative value.

The reporting of the currents assets to the less than one year maturity liabilities may generate a slightly altered image of the company’s capability of not entering into a critical state as stocks of endproducts are difficult to be sold in many cases.

However, if current liabilities increase faster than currents assets, overall liquidity decreases which may cause problems (late payments of suppliers, late payment of wages, and accumulation of bank loans). In this situation, a thorough analysis of the factors which caused a decrease in liquidity and taking early measures are required in order to avoid the occurrence of future negative problems such as:

- increasing and diversifying the portfolio (number of customers) with impact on sales growth;
- lower liabilities to suppliers, preferably through clearing operations;
- timely payment of debts to the state to avoid penalties;
- reduction of bank loans, at least until recovery;
- debts recovery from debtors.

In the foreign specialized literature, **the intermediate liquidity** can also be found under the name of immediate liquidity, considering the full circulation of the credit instruments (the bill of exchange and the promissory note).

It reflects the company’s ability to honour its short-term debts from accounts receivables, short-term financial investments and cash. It is obvious that cash as well as accounts receivables are more easily available to settle debts than any type of inventory unit.

Intermediate liquidity = Current assets - Inventory stocks/ Current debts

The informational value of this rate is revealed by a comparative over time analysis and by reference to current ratio.

The relevance of this indicator, also called “the acid test” is due to the discounting of the inventory which is the least liquid of all current assets, most difficult to be sold and often below their real value. However, the company must ensure that it can meet the short-term due payments (current liabilities)

only on the account of assets that are easily convertible into liquidity. This includes treasury assets and account receivables that can be easily discounted. As the recommended value for this indicator the level of 0.8 may be used.

Practice shows that the "quick ratio" cannot provide certainty to the company either, because the mere existence of account receivables from customers is not sufficient to cover outstanding liabilities. The phenomenon of the existence of account receivables on contentious or defaulted business partner is a reality of many economies, including our country. For this reason, in order to have a more conclusive picture of the risk of default, quick ratio can be calculated.

The quick ratio, also called payment capacity, reflects the company's ability to pay off current liabilities, based on cash availability (including short term investments).

The quick ratio = liquid assets+ short term investments/current liabilities

Given the current liabilities, also payable in short term, do not have a full immediate maturity the level of 0.2 can be used as a benchmark; the lower level of this indicator shows a high risk in terms of the possibility of covering immediate liabilities. This may be a warning of the imminent emergence of financial problems such as: entering default, loss of market, possible enforcement proceedings requested by unpaid suppliers, blocking of bank accounts by tax authorities for non-payment of liabilities to the state.

In order to avoid such problems, the following measures should be used:

- creating strategies to retain old customers and attract new ones (by offering discounts to old customers, promotional products to new customers, aggressive advertising campaigns and creating a special customer care department).
- immediate reduction of liabilities towards suppliers and taxes to the state.
- reduction of the level of financing of the current activity based on bank loans (reduction of the level of loans from banks).

In the economic and financial analysis, the quick ratio is also known as the rate of immediate solvency. Its interpretation involves a series of traps:

- a high level of this ratio indicates a high level of solvency, but this may be due to a poor usage of the available resources. The high value of this rate does not constitute a guarantee of solvency if the remaining current assets have a low degree of liquidity.
- a low level of quick ratio, showing a low level of liquidity, illustrates a situation that can be comparable to maintaining the financial balance if only the company minimizes the amount of the cash on hand, but holds, in return, investment values, accounts receivables and high degree of liquidity stocks.

2. Solvency Ratios and Financial Stability

Solvency is company's ability to meet long and medium-term maturities and depends on the size of debts with such maturities and on the financial expenses. (borrowing cost). This is a priority objective for entrepreneurs who want to maintain financial autonomy and management flexibility and results from the balance between cash flows and payment flows but also from a positive net working capital, that being the adequacy of long-term financing needs (in tangible and financial assets) and permanent financing resources (equity and fixed-term debt). [5, 239]

The common solvency ratios are debt-to-asset and debt-to-equity.

Table no. 1 Solvency Ratios

Solvency ratios	Debt-to-asset	Debt-to-equity
Definition	**The debt-to-asset ratio** is the ratio of total debt to total assets. Total-debt-to-total-assets is a leverage ratio that defines the total amount of debt relative to assets owned by a company. Using this metric, analysts can compare one company's leverage with that of other companies in the same industry. This information can reflect how financially stable a company is.	**The debt-to-equity** (D/E) ratio is calculated by dividing a company's total liabilities by its shareholder equity. [7] It is a measure of the degree to which a company is financing its operations through debt versus wholly-owned funds. More specifically, it reflects the ability of shareholder equity to cover all outstanding debts in the event of a business downturn.
Formula	**TD/TA = Short-Term Debt + Long-Term Debt / Total Assets**	**Debt/Equity= Total Liabilities / Total Shareholders' Equity**

„The total-debt-to-total-assets ratio shows the degree to which a company has used debt to finance its assets.The calculation considers all of the company's debt, not just loans and bonds payable, and considers all assets, including intangibles.

If a company has a total-debt-to-total-assets ratio of 0.4, 40% of its assets are financed by creditors, and 60% are financed by owners (shareholders) equity." [6]

3. Profitability Ratios

Profitability is the economic category that expresses the company's ability to make a profit which reflects its performance.In the economic area, the concept of performance covers different meanings such as: productivity, efficiency, growth, return, etc.

Profitability can also be defined as a decisive tool in the market economy mechanism in directing production in relation to consumer's requirements(productive or individuals). Profitability implies higher income than costs from the sale and collection of manufactured production. Therefore, profitability reflects the company's ability to produce profits reflevcting in a synthetic form the efficiency of the entire business activity of the company.

Profitability ratios indicate a company's ability to generate earnings against cost during a given period. The ratios reveal how well a company is making use of its assets to generate a profit. Profitability ratios are generally used to determine how profitable a company is in one period of time over another period of time (year, quarter or month).

There are various profitability ratios that are used by companies to provide useful insights into the financial well-being and performance of the business.

Most frequently used profitability ratios are: [8]

Table no. 2 Profitability Ratios

Gross Profit Margin	„Gross profit margin – compares gross profit to sales revenue. This shows how much a business is earning, taking into account the needed costs to produce its goods and services. A high gross profit margin ratio reflects a higher efficiency of core operations, meaning it can still cover operating expenses, fixed costs, dividends, and depreciation, while also providing net earnings to the business. On the other hand, a low profit margin indicates a high cost of goods sold, which can be attributed to adverse purchasing policies, low selling prices, low sales, stiff market competition, or wrong sales promotion policies."
EBITDA Margin	„EBITDA stands for Earnings Before Interest, Taxes, Depreciation, and Amortization. It represents the profitability of a company before taking into account non-operating items like interest and taxes, as well as non-cash items like depreciation and amortization. The benefit of analyzing a company's EBITDA margin is that it is easy to compare it to other companies since it excludes expenses that may be volatile or somewhat discretionary. The

	downside of EBTIDA margin is that it can be very different from net profit and actual cash flow generation, which are better indicators of company performance. EBITDA is widely used in many valuation methods."
Net Profit Margin	„Net profit margin is the bottom line. It looks at a company's net income and divides it into total revenue. It provides the final picture of how profitable a company is after all expenses, including interest and taxes, have been taken into account. A reason to use the net profit margin as a measure of profitability is that it takes everything into account. A drawback of this metric is that it includes a lot of "noise" such as one-time expenses and gains, which makes it harder to compare a company's performance with its competitors."
Operating Profit Margin	„Operating profit margin – looks at earnings as a percentage of sales before interest expense and income taxes are deduced. Companies with high operating profit margins are generally more well-equipped to pay for fixed costs and interest on obligations, have better chances to survive an economic slowdown, and are more capable of offering lower prices than their competitors that have a lower profit margin. Operating profit margin is frequently used to assess the strength of a company's management since good management can substantially improve the profitability of a company by managing its operating costs."
Cash Flow Margin	„Cash flow margin – expresses the relationship between cash flows from operating activities and sales generated by the business. It measures the ability of the company to convert sales into cash. The higher the percentage of cash flow, the more cash available from sales to pay for suppliers, dividends, utilities, and service debt, as well as to purchase capital assets. Negative cash flow, however, means that even if the business is generating sales or profits, it may still be losing money. In the instance of a company with inadequate cash flow, the company may opt to borrow funds or to raise money through investors in order to keep operations going."
Return on Assets	„Return on assets (ROA), as the name suggests, shows the percentage of net earnings relative to the company's total assets. The ROA ratio specifically reveals how much after-tax profit a company generates for every one dollar of assets it holds. It also measures the asset intensity of a business. The lower the profit per dollar of assets, the more asset-intensive a company is considered to be. Highly asset-intensive companies require big investments to purchase machinery and equipment in order to generate income. Examples of industries that are typically very asset-intensive include telecommunications services, car manufacturers, and railroads. Examples of less asset-intensive companies are advertising agencies and software companies."
Return on Equity	„Return on equity (ROE) – expresses the percentage of net income relative to stockholders' equity, or the rate of return on the money that equity investors have put into the business. The ROE ratio is one that is particularly watched by stock analysts and investors. A favorably high ROE ratio is often cited as a reason to purchase a company's stock. Companies with a high return on equity are usually more capable of generating cash internally and therefore less dependent on debt financing."

Conclusions

Ratio Analysis is important for the company in order to analyze its financial position, liquidity, profitability, risk, solvency, efficiency, and operations effectiveness and proper utilization of funds which also indicates the trend or comparison of financial results that can be helpful for decision making for investment by shareholders of the company.

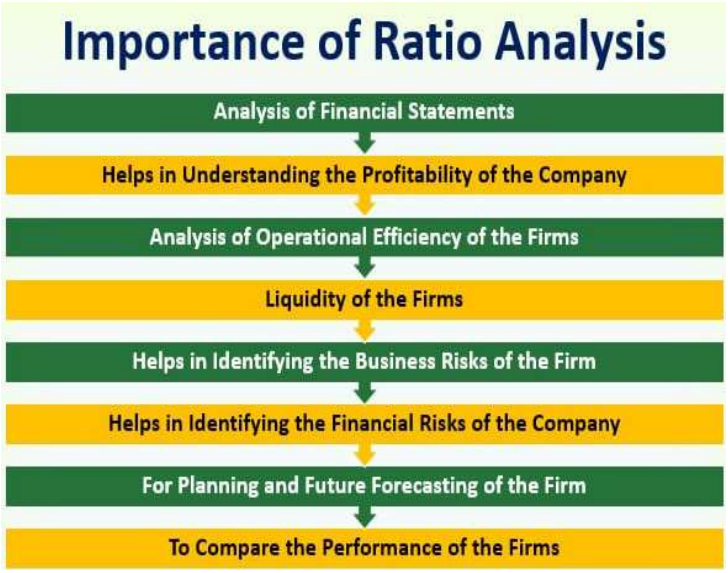

Figure no. 1 Importance of Ratio Analysis [9]

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