

FINANCIAL RATIOS – REVEAL HOW A BUSINESS IS DOING?

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ABSTRACT: *The paper aims to present the main financial ratios which provide a picture about company's profitability, its financial position, use of its assets efficiency, its long-term debt financing. Discussion is focused on: profitability ratios, short-term financial ratios, activity ratios, long-term debt ratios or dividend policy ratios. Also, will try to answer at the following main questions: What financial ratios analysis tells us? What the users of these needs to know?*

KEY WORDS: *ratios, financial analysis, financial statement, financial ratios, profitability, liquidity, activity ratios*

1. INTRODUCTION

Accounting is the process of collecting, analyzing and reporting financial information.

The raw material of financial analysis is considered financial statement and with help of ratios analysis can be revealed profitability, liquidity, activity ratios or financing and debts burden ratios of one company.

Financial statement analysis it is an helpful techniques which have no significance only by reading the financial statement, being necessarily to calculate financial ratios, interpreting those financial ratios, and also, by using other techniques of financial analysis, such us horizontal analysis which reveals additional information about financial strengths and weaknesses, or vertical analysis which shows financial situation within a single accounting period.

The information contained in the financial statements is used and presents interest for different categories of users like: managers, investors, suppliers and other trade creditors, stockholders, financial analysts, government agencies. A number of financial ratios can be computed from the information contained in the financial statements.

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Financial ratios show financial relationship by dividing one financial item by another, and are an important tool for management, permitting a space comparison to place the company in her environment.

It is recommended that after financial ratios calculation to compare those ratios with a standard.

Financial ratios analysis is used to find an answer of the following main questions: is activity profitable, has the company enough money to pay its obligations, how higher is wages level of its employees, company use its assets efficiently, has company a gearing problem.

2. PROFITABILITY RATIOS

Profitability ratios measure income relative to sales and resources, determining the ability of a company to generate earnings and effective employment of resources. It is considered that a company is doing well when a profitability ratio has a higher value relative to the same ratio from a previous period.

The main profitability ratios to which have to be considered are the following:

- Gross Profit Margin;
- Net Profit Margin;
- Operating Profit Margin;
- Return on Assets;
- Return on Equity.

Gross profit margin measures the gross profit earned on sales taking into consideration company's costs of goods sold, excepting other costs. Gross profit is the profit we earn before we take off any administration costs, and this has a higher value than net profit.

$$\text{Gross Profit Margin} = \frac{\text{Gross Profit}}{\text{Turnover}} \times 100 \quad (1)$$

Turnover = Sales

Gross Profit = Sales – Cost of Sales

An average value of gross profit margins vary from industry to industry, or type of company within an industry.

Net profit margin shows what percent of profit is made from sales. Similarly with the gross profit margin, net profit margin varies from business to business, or type of company within an industry. Net Profit = Gross Profit - Expenses

$$\text{Net Profit Margin} = \frac{\text{Net Profit}}{\text{Turnover}} \times 100 \quad (2)$$

Operating profit margin reveals the return from standard operations, excluding the impact of extraordinary items, or how much profit earned a company from standard operations, being defined by dividing operating profit to turnover. Operating profit = sales – costs of goods sold.

$$\text{Operating Profit Margin} = \frac{\text{Operating Profit}}{\text{Turnover}} \times 100 \quad (3)$$

Return on assets is a measure of how effectively the company's assets are being used to generate profit.

$$\text{Return on Assets} = \frac{\text{Net Profit}}{\text{Total Assets}} \times 100 \quad (4)$$

Return on assets indicates the capital intensity of the company, being useful to take into consideration the idea of trying to convert assets into profit.

Return on Equity measures the rate of return on the ownership investments. It measure company's efficiency at generating profits from each monetary unit or net assets, being one of the most financial ratio, showing how well a company uses investments to generate earnings growth. It is an important ratio for owners and potential investors.

$$\text{Return on Equity} = \frac{\text{Net Profit}}{\text{Shareholder Equity}} \times 100 \quad (5)$$

3. LIQUIDITY AND SOLVENCY RATIOS

Liquidity ratios shows company's ability to pay off short term obligations as they come due, to convert short term assets into cash to cover debts.

The main ratios which have to be considered are: general liquidity; intermediate liquidity; immediate liquidity; solvency ratio.

General liquidity is in accordance with working capital being considered a well indicator of company's ability to pay off her bills and debts. Liquidity ratios are of particular interest to those extending short term credit to the company. This ratio is known like current ratio or working capital ratio.

$$\text{General liquidity} = \frac{\text{Current Assets}}{\text{Current Liabilities}} \quad (6)$$

The current assets used in the general liquidity ratio are inventories, accounts receivable, short term investments, cash. In the industrial field where there is a long production life cycle, this ratio has to be almost 2 (or 200%). A value under unit (<1) indicates that short term debts are not cover by current assets and working capital has a negative value. Short term creditors prefer a higher value of this ratio since it reduce their risk, and shareholders prefer a lower value so that more of the company's assets are working to grow the business.

Intermediate liquidity - the normal level is almost 0.8-1 (or 80% - 100%) and show company's ability to cover short term debts. The higher this ratio is, the better is the position of the company. This ratio is known like quick ratio.

$$\text{Intermediate liquidity} = \frac{\text{Current Assets} - \text{Inventory}}{\text{Current Liabilities}} \quad (7)$$

Immediate liquidity reveals company's ability to pay off current obligations with cash (including short term investments). A normal level of this ratio is 0.2-0.3 (or 20% - 30%). This ratio is known like cash ratio.

$$\text{Immediate liquidity} = \frac{\text{Cash} + \text{Short term Investments}}{\text{Current Liabilities}} \quad (8)$$

Immediate liquidity ratio excludes all current assets except the most liquid cash and short term investments, and it is considered the most conservative liquidity ratio.

Solvency ratio shows company's ability to face with medium and long term liabilities. This ratio measures company's financial security relative to its creditors and financial institutions. The normal value of this ratio has to be higher than 1.5.

$$\text{Solvency ratio} = \frac{\text{Total Assets}}{\text{Total Liabilities}} \quad (9)$$

4. ACTIVITY RATIOS

Activity ratios tell us how well a company is managing its assets, and help financial statement users to evaluate levels of output generated by assets. The assessment of activity ratios helps us to understand the overall level of efficiency at which a business is performing.

The activity ratios are useful, especially when these are compared with standards taking into account industry averages.

The main ratios which have to be considered are:

- Total Assets Turnover;
- Fixed Assets Turnover;
- Current Assets Turnover;
- Inventory Turnover and Inventory Period;
- Receivables Turnover and Average Collection Period;
- Working Capital Turnover.

Generally, all these activity ratios can be express in number of rotation of one item through turnover (how quickly an item is generated sales), or in terms of the number of days needed by one item to generate sales.

Total assets turnover compares the turnover with the assets that the company has used to generate that turnover, reflecting the efficiency of assets utilization, or otherwise how well the company management is using its total assets to generate sales.

Total assets are split in fixed assets and current assets, so we can take about the ratios which take into consideration that element, and could be built others two activity ratios, as follow: fixed assets turnover and current assets turnover.

$$\text{Total Assets Turnover} = \frac{\text{Turnover}}{\text{Total Assets}} \quad (10)$$

Fixed assets turnover show how well the company is using its fixed assets to generate sales, and it is calculate by dividing turnover to fixed assets (11). The higher is the value of the fixed assets ratio turnover the better.

$$\text{Fixed Assets Turnover} = \frac{\text{Turnover}}{\text{Fixed assets}} \quad (11)$$

Current assets turnover show how well the company is using its current assets to generate sales, and it is calculate by dividing turnover to current assets (12). Also, regarding the current assets there can be split, and we can calculate similar ratio such as inventory turnover, or receivable turnover.

$$\text{Current Assets Turnover} = \frac{\text{Turnover}}{\text{Current Assets}} \quad (12)$$

Inventory is a very important asset that must to be managed. The inventory turnover ratio shows how effective the company management is managing inventory. This activity ratio could be express also through cost of goods sold in a time period divided by the average inventory level during a period. Inventory period (14) is defined by dividing average inventory level to turnover, being expressed in days (15).

$$\text{Inventory Turnover} = \frac{\text{Turnover}}{\text{Average Inventory}} \quad (13)$$

$$\text{or Inventory Turnover} = \frac{\text{Cost of Goods Sold}}{\text{Average Inventory}} \quad (14)$$

$$\text{Inventory Period} = \frac{\text{Average Inventory}}{\text{Turnover}} \times 365 \quad (15)$$

Receivable turnover indicates how quickly the company collects his accounts receivables being defined by dividing annual credit sales to accounts receivable (16). Often, the receivable turnover is expressed in terms of the number of days that credit sales remain in accounts receivable before they are collected. This number of days is known as the average collection period (17).

$$\text{Receivable Turnover} = \frac{\text{Annual Credit Sales}}{\text{Accounts Receivable}} \quad (16)$$

$$\text{Average Collection Period} = \frac{\text{Accounts Receivable}}{\text{Annual Credit Sales}} \times 365 \quad (17)$$

These ratios can be used to determine whether the company is having trouble collecting on sales it provided customers on credit. Average collection period helps monitor the effectiveness of credit management policy and also, helps the company budget for cash flows.

Working capital turnover ratio - the relationship between turnover and working capital, show how effectively working capital is being used in terms of the turnover. There is no ideal values regarding this ratio, but the higher is the better.

$$\text{Working Capital Turnover} = \frac{\text{Turnover}}{\text{Working Capital}} \quad (18)$$

5. DEBT RATIOS

Debt ratios show how company is using long term debt, providing to the users indication of the long term solvency of the company, and how debt are used to finance the company, and how well these debt are managed.

The main debt ratios which have to be considered are: Debt to Total Assets; Debt to Equity; Interest Coverage.

Debt to total assets shows the proportion of assets finance by debt, and is express as a percentage, being calculated by dividing total debt to total assets. A debt to total assets ratio of 50 percent expressing that half of the assets are financed with debt.

$$\text{Debt to Total Assets} = \frac{\text{Total Debt}}{\text{Total Assets}} \times 100 \quad (19)$$

Debt to equity ratio is defined dividing total debt to total equity.

$$\text{Debt to Equity} = \frac{\text{Total Debt}}{\text{Equity}} \quad (20)$$

Interest coverage ratios reveal how well company's earnings can cover the interest payments on its debt, and express a measure of safety, being expressed as a multiplier.

$$\text{Interest Coverage} = \frac{\text{Earnings Before Interest and Taxes}}{\text{Interest Expenses}} \quad (21)$$

6. DIVIDEND POLICY RATIOS

Dividend policy ratios are useful for investors, and these ratios are relatively simple both to use and to understand. Investors, especially, are concerned with the return provided by their investments. They need information to help them to assess the ability of the company to pay dividends. The basic dividend policy ratios which

investors are interested in are the following: Earnings per Share; Dividends per Share; Dividend Yield; Dividend Cover; Price/Earning Ratio.

Earning per share is one of the fundamental dividend policy ratios, expressing the average amount of profits earned per ordinary share issued, being calculated as follow:

$$\text{Earnings per Share} = \frac{\text{Pr ofit available to equity shareholders}}{\text{Averagenumber of issued equity shares}} \quad (22)$$

Dividend per share ratio is similar with first one and shows how much the shareholders were actually paid by way of dividends, and is calculated by dividing total amount of dividends paid to equity shareholders to the average number of issued equity shares.

$$\text{Dividends per Share} = \frac{\text{Dividends paid to equity shareholders}}{\text{Averagenumber of issued equity shares}} \quad (23)$$

Dividend yield ratio allows investors to compare the latest dividend they received with the current market value of the share as an indicator of the return they are earning on their shares.

$$\text{Dividend Yield} = \frac{\text{Dividends per Share}}{\text{Share Price}} \quad (24)$$

Dividend cover ratio tells us how easily a business can pay its dividend from profits. A high dividend cover means that the company can easily afford to pay the dividend and a low value means that the business might have difficulty paying a dividend.

$$\text{Dividend Cover} = \frac{\text{Net profit available to equity shareholders}}{\text{Dividends paid to equity shareholders}} \quad (25)$$

Price/Earning Ratio is a vital ratio for investors, which gives us an indication of the confidence that investors have in the future prosperity of the business.

$$\text{Price/Earnings Ratio} = \frac{\text{Share price}}{\text{Earnings per share}} \quad (26)$$

7. CONCLUSIONS

Financial ratios are useful to indicate company's performance and financial situation. To be significant most of the financial ratios must to be compared to company's forecast, to historical values of the same company, to a value which is considered an optimum value for the company's activity sector, or ratios of similar companies. Some ratios by themselves may not be representative, and should be

viewed as indicators or combined with others ratios to give us a picture about company's situation. Financial ratios have to satisfy different needs for information for the different users. Users are interested by information that focuses on the financial position, performance, activity assets utilization, company's financial structure, its liquidity and solvency, and its capacity to adapt to changes in the environment in which it operates. Financial ratio analysis can also help users to check whether a business is doing better in one period (current financial exercise) than it was last period, and it can tell them if one business is doing better or worse than other businesses doing and selling the same things.

REFERENCES:

- [1]. **Bragg, S.M.** - *Business Ratios and Formulas. A Comprehensive Guide*, John Wiley & Sons Inc, USA, 2007
- [2]. **Brezeanu, P.** - *Management financiar*, Editura Universității Româno-Britanice, București, 2008
- [3]. **Cohen, E.** - *Analyse financiare, 5e edition*, Economica, Paris, 2004
- [4]. **Dinu, E.** - *Rentabilitatea firmei în practică*, Editura AllBeck, București, 2004
- [5]. **Ebbers, G.; Flower, J.** - *Global Financial Reporting*, Palgrave, New York, 2002
- [6]. **Gheorghiu, A.** - *Analiza economico-financiară la nivel microeconomic*, Editura Economică, București, 2004
- [7]. **Griffin, M.P.** - *MBA Fundamentals. Accounting and Finance*, Kaplan Publishing, New York, 2009
- [8]. **Helfert, E.** - *Tehnici de analiză financiară*, BMT Publishing House, București, 2006
- [9]. **Needles, B.E.Jr.; Powers, M.; Crosson, S.V.** - *Financial and Managerial Accounting*, Houghton Mifflin College, USA, 2007
- [10]. **Walsh, C.** - *Key management ratios*, Pitman Publishing, 1996