

The Impact of Financial Analysis in Maximizing the Firm's Value "A Case Study on the Jordanian Industrial Companies"

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Abstract: *Financial statement analysis involves a study of the relationships between income statement and financial position statement accounts, how these relationships change over time, and how a particular firm compares with other firms in the same industry. This study aims to point out the impact of financial analysis in maximizing the firm's value. Financial analysis outcomes can be used to help both managers and external parties in making financial and investment decisions to maximize the wealth and benefits of each stakeholder. For achieving this purpose, number of 100 questionnaires has been designed, circulated by hand to a selected sample of employees working in different Jordanian industrial companies. Resolution data were analyzed using the statistical program SSPS. Finally, the study concluded that, financial analysis has a significant positive effect on helping managers in taking effective decisions that can increase the profitability and the value of the firm.*

Keywords: *Financial Analysis, Firm's Value, Investment Decisions, Financial Position statement.*

1. INTRODUCTION

Financial analysis identifies a firm's relative strengths and weaknesses and suggests actions the firm might enact to take advantage of its strengths and correct its weaknesses in the future. Financial statement analysis (Pandey, 1995) is not only important for the firm's managers, it is also important for the firm's investors and creditors. Internally, financial managers use the information provided by financial analysis to help making financial and investment decisions to maximize the firm's value. Externally, stockholders and creditors use financial statement analysis to evaluate the attractiveness of the firm as an investment by examining its ability to meet its current and expected future financial obligations.

Financial statement analysis(Khan, Jain, 1993) involves a study of the relationships between income statement and balance sheet accounts, how these relationships change over time (Trend Analysis), and how a particular firm compares with other firms in industry (Comparative Ratio Analysis). Although financial analysis has limitations, when used with care and judgment, it can provide some very useful insights into the operations of a company.

Financial statement analysis is used to obtain a quick indication of a firm's financial performance in several key areas. The data, which are provided by financial statements, are readily available. The computation of ratios facilitates the comparison of firms which differ in size. Ratios can be used to compare a firm's financial performance with industry averages. In addition, ratios can be used in a form of trend analysis to identify areas where performance has improved or deteriorated over time.

A financial analysis assists in identifying the major strengths and weaknesses of a business enterprise. It indicates whether a firm has enough cash to meet obligations; a reasonable accounts receivable collection period; an efficient inventory management policy; sufficient plant, property, and equipment; and an adequate capital structure (Moyer, McGuigan, Kretlow, 2005).

2. STUDY PROBLEM

Right decisions definitely will lead to increasing the firm's earnings, but right decisions depend on useful and proper information. Financial ratios derived through financial analysis can provide

such useful and proper financial information which helps managers to take such right decisions. Recently, most of business failures are due to improper information. Financial ratios are statistical yardstick that relate to numbers which is generally taken from the firm's income statement and financial position statement. These ratios are used by managers as a main judgment tool of financial performance of a firm. So can managers depend on the ratios outcomes in judging the real performance of their company? And can ratio analysis reveal the weaknesses points in order to direct management attention to the problems and finally taking right decisions that could maximize the firm's wealth and value.

3. STUDY IMPORTANCE

Ratio analysis is an important technique of financial statement analysis. Ratios are useful for understanding the financial position of the company. Investors, management, bankers and creditors use the ratio to analyze and judging the company's efficiency, locating weakness of the company's operations even though its overall performance may be quite good. Although financial ratios are used to analyze the company's past financial performance, they can also be used to establish future trends of its financial performance. As a result, investors can predict the company's performance over the coming years and then facilitates comparison to make the suitable investment decisions.

4. STUDY OBJECTIVES

The main objective of the study is to evaluate of ratio analysis in investment decision making by applying ratio analysis to determine the strengths and weaknesses of the firm. In assessing the significance of various financial data for effective investment decision, experts engage in financial analysis, the process of determining and evaluating financial ratios.

5. LITERATURE REVIEW

Ratio Analysis is one of the basic tools of financial analysis. It is an important tool in business planning and decision making as it explores the strengths, weaknesses, opportunities and threats facing the company (B.F Online, 2014). Generally managers use financial ratios to analyze a company's financial performance before making a decision. Financial ratios reveal how a company is financed, how it uses its resources, its ability to pay its debts and its ability to generate profit. Ratios provide a glimpse of a company's position at a particular time, and are most useful when compared across time periods and when comparing companies in the same industry. Ratios alone do not give a complete picture of a company's investment potential, but they are a wise place to start the analysis (Young, 2014).

Nowadays, the financial analysis of an enterprise is one of the main prerequisites for successful management of financial resources, and, according to several scientists, is one of the most significant elements of financial management.

A problem with using ratios as tools is that the extant literature testing their value is limited. For example, there is little evidence that a capital accumulation ratio of 0.7 is better than one of 0.3, or that the protection provided by holding 6 months of assets in liquid investments is worth the tradeoff in expected return (Harness, Chatterjee, Finke, 2008).

Financial ratios allow for comparisons and, therefore, are intertwined with the process of benchmarking, comparing one's business to that of others or of the same company at a different point in time. In many cases, benchmarking involves comparisons of one company to the best companies in a comparable peer group or the average in that peer group or industry. In the process of benchmarking, investor identifies the best firms in their industry, or in another industry where similar processes exist, and compares the results and processes of those studied to one's own results and processes on a specific indicator or series of indicators (Boundless, 2014).

For ratios to be useful and meaningful, they must be:

- Calculated using reliable, accurate financial information
- Calculated consistently from period to period
- Used in comparison to internal benchmarks and goals
- Used in comparison to other companies in your industry

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- Viewed both at a single point in time and as an indication of broad trends and issues over time
- Carefully interpreted in the proper context, considering there are many other important factors and indicators involved in assessing performance.

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Although financial analysis has limitations, when used with care and judgment, it can provide some very useful insights into the operations of a company.

A firm's annual report (Lawence, Daniel, W Bruce, 2004) to shareholders presents two types of information. The first is a verbal statement of the company's recent operations and its expectations for the coming year. The second is a set of quantitative financial statements that report what actually happened to the firm's financial position, earnings, and dividend over the past few years. The information contained in an annual report is used by investors to form expectations about future earnings and dividends.

The income statement (Larson, Miller Paul, 1993) summarizes the firm's revenues and expenses during the accounting period. It's important to note that not all the amounts shown in the income statement represent cash flows. Revenues are recognized when they are earned, not when the cash received, and the expenses are realized when they are incurred not when the cash is paid. The primary purpose of the income statement is to report a company's earnings to investors over a specific period of time. Years ago, the income statement was referred to as the Profit and Loss (or P&L) statement, and has since evolved into the most well-known and widely used financial report on Wall Street. Many times, investors make decisions based entirely on the reported earnings from the income statement without consulting the balance sheet or cash flow statements (which, while a mistake, is a testament to how influential it is). To an enterprising investor, income statement analysis reveals much more than a company's earnings. It provides important insights into how effectively management is controlling expenses, the amount of interest income and expense, and the taxes paid. Investors can use income statement analysis to calculate financial ratios that will reveal the rate of return the business is earning on the shareholders' retained earnings and assets; they can also compare a company's profits to its competitors by examining various profit margins such as the gross profit margin, operating profit margin, and net profit margin.

Many companies break revenue or sales up into categories to clarify how much was generated by each division. Clearly defined and separate revenues sources can make analyzing an income statement much easier. It allows more accurate predictions on future growth.

Cost of goods sold (COGS for short) is the expense a company incurred in order to manufacture, create, or sell a product. It includes the purchase price of the raw material as well as the expenses of turning it into a product. Cost of goods sold (COGS) is also known as cost of revenue or cost of sales.

The balance sheet (Larson, Miller Paul, 1993) lists the firm's assets and the claims against those assets. It portrays the firm's financial position at a specific point of time. Assets are typically shown by the order of their liquidity, or the length of time it typically takes to convert them to cash. The first liquid item is cash which represent actual money. Non-cash assets should produce cash flow eventually, but they do not represent cash on hand, and the amount of cash they would bring if they were sold today because the amounts could be higher or lower than the values at which they carried on the books.

Claims against the assets consist of liabilities and common stockholders' equity. Net worth represents the residual amount stockholders would receive if assets could be sold and liabilities paid at book values. It should be noted that, the risk of asset value fluctuations is borne by the stockholders. Another important point should be considered when evaluating the amount of

stockholders equity, which is preferred stock. It should be combined with debt because the preferred dividend is considered one of the financial obligations of the firm.

The common equity section (Kieso, Jerry, 2001) of the balance sheet is divided into three accounts, common stock, paid-in capital, and retained earnings. Common stock and paid-in capital accounts arise from the issuance of stock which is main source of capital to corporations. The difference between the selling price and the nominal value of stock is called paid-in capital. Retained earnings are built up over time as the firm reinvests a part of its earnings rather than paying all earnings out as dividends. The breakdown of the common equity shows whether the company actually earned the funds reported in its equity accounts or whether the firm's earnings came mainly from selling stock.

Ratios can be divided into four major categories:

- Liquidity ratios
- Profitability Ratios
- Debt or Solvency Ratios
- Cash Flow Adequacy ratios
- Market Value ratios

6. LIQUIDITY RATIOS

Liquidity ratios measure a firm's ability to pay its bills as they come due. Two commonly used liquidity ratios are the current ratio, and the quick ratio.

6.1. Current Ratio

The current ratio is found by dividing current assets by current liabilities. A ratio of 1 means the business has just enough current assets to pay current liabilities. Ratios above 1 mean a firm has more current assets than current liabilities; ratios below 1 mean more current liabilities than current assets. Investors typically prefer a lower current ratio because it shows that a firm's assets are working to grow the business.

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

6.2. Quick Ratio

The quick ratio, also called the acid test, subtracts inventory from current assets before dividing them by current liabilities. The acid test gives a more accurate view of the firm's short-term liquidity than the current ratio because it removes inventory that the firm may not be able to sell from the equation.

$$\text{Quick Ratio} = \frac{\text{Current Assets} - \text{Inventory}}{\text{Current Liabilities}}$$

6.3. Accounts Receivable Turnover Ratio

It measures the number of times trade receivables turnover during the year. The higher the turnover, the shorter the time between sales and collecting of cash. This ratio tells the investor what are the customer payment habits compared to firm's payment terms. Accordingly the firm may need to step up the collection policies or tighten the credit policies. These ratios are only useful if majority of sales are credit sales.

$$\text{Accounts Receivable Turnover} = \frac{\text{Net Sales}}{\text{Average Accounts Receivable}}$$

6.4. Inventory Turnover Ratio

It measures the number of times inventory turns over into sales during the year or how many days it takes to sell inventory. This is a good indication of production and purchasing efficiency. A high ratio indicates inventory is selling quickly and that little unused inventory is being stored (or

could also mean inventory shortage). If the ratio is low, it suggests overstocking, obsolete inventory or selling issues.

$$\text{Inventory Turnover} = \frac{\text{Cost of Sales}}{\text{Average Inventory}}$$

7. PROFITABILITY RATIOS

Profitability ratios measure a firm's ability to generate profits. It consist four main ratios; net profit margin, assets turnover ratio, return on assets and return on equity.

7.1. Profit Ratio

Measure of net income produced by each dollar of sales.

$$\text{Profit ratio} = \frac{\text{Net Income}}{\text{Net Sales}}$$

7.2. Assets Turnover Ratio

It measures how efficiently the business generates sales on each dollar of assets. An increasing ratio indicates that the firm is using assets more productively.

$$\text{Asset Turnover Ratio} = \frac{\text{Net Income}}{\text{Average Total Assets}}$$

7.3. Return on Assets

(ROA) Measure of overall earning power of profitability.

$$\text{ROA} = \frac{\text{Net Income}}{\text{Average Total Assets}}$$

7.4. Return on Equity

(ROE) Measure of profitability of stock holders' investment.

$$\text{ROE} = \frac{\text{Net Income}}{\text{Average Total Equity}}$$

It is important to remember that ROA and ROE ratios are based on accounting book values and not on market values. Thus, it is not appropriate to compare these ratios with market rates of return such as the interest rate on Treasury bonds or the return earned on an investment in a stock (Ahsan, 2013)

8. DEBT RATIOS

Debt Ratios attempt to measure the firm's use of Financial Leverage and ability to avoid financial distress in the long run. These ratios are also known as Long-Term Solvency Ratios.

Debt is called Financial Leverage because the use of debt can improve returns to stockholders in good years and increase their losses in bad years. Debt generally represents a fixed cost of financing to a firm. Thus, if the firm can earn more on assets which are financed with debt than the cost of servicing the debt then these additional earnings will flow through to the stockholders. Moreover, our tax law favors debt as a source of financing since interest expense is tax deductible (B.F Online, 2014).

With the use of debt also comes the possibility of financial distress and bankruptcy. The amount of debt that a firm can utilize is dictated to a great extent by the characteristics of the firm's industry. Firms which are in industries with volatile sales and cash flows cannot utilize debt to the same extent as firms in industries with stable sales and cash flows. Thus, the optimal mix of debt for a firm involves a tradeoff between the benefits of leverage and possibility of financial distress.

8.1. Debt to Equity Ratio:

Measure of Capital Structure and leverage

$$\text{Debt to Equity Ratio} = \frac{\text{Total Liabilities}}{\text{Total Equity}}$$

8.2. Debt to Assets Ratio

Measure of assets debt structure

$$\text{Debt to Assets Ratio} = \frac{\text{Total Assets}}{\text{Total Equity}}$$

8.3. Interest Coverage Ratio:

Measure of Creditors' protection from default on interest payment

$$\text{Interest Coverage Ratio} = \frac{\text{Income before Income Taxes} + \text{Interest Expenses}}{\text{Interest Expenses}}$$

9. CASH FLOW ADEQUACY RATIOS

9.1. Cash Flow Yield Ratio

Measure of a company's Ability to generate operating cash flows in relation to net income

$$\text{Cash Flow Yield Ratio} = \frac{\text{Net Cash Flow from Operating Activities}}{\text{Net Income}}$$

9.2. Cash Flow to Sales Ratio

Measure of the ability of sales to generate operating cash flow

$$\text{Cash Flow to Sales Ratio} = \frac{\text{Net Cash Flow from Operating Activities}}{\text{Net Sales}}$$

9.3. Cash Flow to Assets Ratio

Measure of the ability of assets to generate operating cash flow

$$\text{Cash Flow to Assets Ratio} = \frac{\text{Net Cash Flow from Operating Activities}}{\text{Average Total Assets}}$$

10. MARKET VALUE RATIOS

Market Value Ratios relate an observable market value, the stock price, to book values obtained from the firm's financial statements.

10.1. Price-Earnings Ratio (P/E Ratio):

The Price-Earnings Ratio is calculated by dividing the current market price per share of the stock by earnings per share (EPS). (Earnings per share are calculated by dividing net income by the number of shares outstanding.) The P/E Ratio indicates how much investors are willing to pay per dollar of current earnings. As such, high P/E Ratios are associated with growth stocks. (Investors who are willing to pay a high price for a dollar of current earnings obviously expect high earnings in the future.) In this manner, the P/E Ratio also indicates how expensive a particular stock is. This ratio is not meaningful, however, if the firm has very little or negative earnings.

$$\text{P/E Ratio} = \frac{\text{Price per Share}}{\text{Earnings per Share}}$$

$$\text{Where: Earnings per Share} = \frac{\text{Net Income}}{\text{Number of Shares Outstanding}}$$

10.2. Market-to-Book Ratio

The Market-to-Book Ratio relates the firm's market value per share to its book value per share. Since a firm's book value reflects historical cost accounting, this ratio indicates management's success in creating value for its stockholders. This ratio is used by "value-based investors" to help to identify undervalued stocks.

$$\text{Market-to-Book Ratio} = \frac{\text{Price per Share}}{\text{Book Value per Share}}$$

$$\text{Where: Book Value per Share} = \frac{\text{Total Owners' Equity}}{\text{Number of Shares Outstanding}}$$

P/E ratio is a widely used ratio which helps the investors to decide whether to buy shares of a particular company. It is calculated to estimate the appreciation in the market value of equity shares. The average P/E ratio is normally from 12 to 15 however it depends on market and economic conditions. P/E ratio may also vary among different industries and companies. P/E ratio indicates what amount an investor is paying against every dollar of earnings. A higher P/E ratio indicates that an investor is paying more for each unit of net income. So P/E ratio between 12 to 15 is acceptable. A higher P/E ratio may not always be a positive indicator because a higher P/E ratio may also result from overpricing of the shares. Similarly, a lower P/E ratio may not always be a negative indicator because it may mean that the share is a sleeper that has been overlooked by the market. Therefore, P/E ratio should be used cautiously. Investment decisions should not be based solely on the P/E ratio. It is better to use it in conjunction with other ratios and measures (ReadyRatio, 2014).

11. METHOD

The primary data needed for the study objectives were collected through a survey conducted among different levels of employees such as officers, clerks, and managers. A questionnaire has been designed for this purpose, and it was distributed by hand to selected sample of employees working in the industrial companies in Jordan in the month of May 2014. Resolution data were analyzed using the statistical program SSPS. Likert scale quintet has been used, five options for each question was identified. Quantitative data were collected using a self-administered questionnaire, in which the investors were asked to state the likelihood (on a 5-point scale: [5] strongly agree; [4] agree; [3] neutral; [2] disagree; [1] strongly disagree), 100 copies of the questionnaire were delivered by hand on the respondents, 96 copies were returned (percentage of 96%); All copies returned were accepted and used in the analysis.

Other Data is collected from secondary sources. Secondary data is collected from articles published by the well-known periodicals, books, and dissertations.

11.1. Statistical Analysis

The Statistical Package for SSPS was applied in analyzing the data received; Statistical Analysis tools include the followings:

1. Descriptive Statistics, mainly frequencies and percentages, were used to analyze sample characteristics according to job, educational level, professional certificates, and experience.
2. Reliability Test using Cronbach's Alpha was used to test the reliability of the scale (Sekrran, 2003).

The results showed that, the reliability coefficient is 76.5%, which indicates that, the questionnaire is reliable and suitable for the objectives of the study.

11.2. Study Hypothesis

H0: There is **No** significant impact of the financial analysis on maximizing the firm's value

11.3. Data Analysis of the Demographic Characteristics of the Respondents

Table (1), illustrates the demographic characteristics distribution of the study sample.

Table(1): Variable	Group	Frequencies	%
Sex	Male	82	85.4
	Female	14	14.6
Total		96	100%
Age	Less than 25 years	12	10.7
	From 25 years—35 years	29	25.9
	More than 35 years—45 years	42	37.5
	More than 45 years	29	25.9
Total		112	100%
Professional Certificate	Bachelors Degree	73	76.4
	Master Degree	13	13.54
	PhD degree	6	6.25
	Other	4	4.17
Total		96	100%
Job Title	Accountant	73	76.4
	officer	11	11.46
	Head of Dept.	12	12.5
Total		96	100%
Experiences	Less than 5 years	42	43.7
	From 5 years – 10 years	43	44.7
	More than 10 years – 15 years	9	9.3
	More than 15 years	2	2.8
Total		96	100%

The respondents were 85.4% male and 14.6% female; most of them were between the age of 25 years and 45 years and 25.9% were above the age of 45 years. Most respondents had average experience between 5 and 10 years. The Job title of 76.4% of the respondents was Accountants, 11.46% were Officers, and 12.5% were Head of Departments. Most of respondents 76.4% had Bachelors Degree, and 13.54% were having Master degree, and 6.25% were having PhD degrees. Demographic data is shown in Table No. (1).

11.4. SSPS Results

The study hypothesis stated that there is no significant impact of the financial analysis on maximizing the firm's value. Regression test has been made in order to figure out whether there is an impact of the financial analysis on maximizing the firm's value in the Jordanian industrial companies.

Table (2), illustrates the Regression test results

Sig	R2	R	Calculated F	Tabulated F	Result
0.000	0.209	0.457	20.012	2.001	Reject

Table (2) refers that there is significance effect where the adjusted R2 equals (0.209) at the significant level ($\alpha \leq 0.05$). As the calculated F value equals (20.012) which is higher than tabulated value (2.001), and as the level of statistical significance amounted to (0.000) which is less than the specified value 0.05, and therefore we accept the alternative hypothesis and reject the null hypothesis. This means that there is no statistical significant effect at the level of significance ($\alpha \leq 0.05$). This means that, there is a significant impact of the financial analysis on maximizing the firm's value

12. CONCLUSIONS & RECOMMENDATIONS

According to data analysis, and hypothesis testing the study had concluded the following:

- Financial analysis has a significant positive effect on helping managers in taking effective decisions that can increase the profitability and the value of the firm.
- Proper preparation and analysis of financial statements minimizes risk of business failure, and reveals the strength, weaknesses, and opportunities of a business enterprise.

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According to the study conclusions the researcher recommends the following:

- a. Managers depend on financial statements while taking decisions, so there should be a continuous controlling process over accounts.
- b. As accounts reflects the real activities of the firm, there should be
- c. Management should take into consideration other tools than financial ratios as it has a significant effect on decision making.
- d. Financial analysis will not say why something is going wrong and what to do about a particular situation; they only pinpoint where the problem is.

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