Comparative Ratio Analysis for Financial Performance Evaluation

A Case Study ofthe NCI Company

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- تشرين٢ ٢٠١٨
- استلام البحث: ٢٠١٨/٥/١٠
- قبول النشر: ٢٧/ ٢٠١٨/٦

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Absract:

The financial statements provide information about company's financial position. Although, Itmightpresent alimited information about the shareholders wealth. Hence,the shareholders need to ensure about their equity investment and to decide whether to invest or not in the company, and this necessitycanbe done byevaluating the financial health of the company. Therefore, the financial performance of a company needs to be evaluatedperiod after period; thus, it is necessary to choose an adequatemethod and technique to make this analysis.

This is a comparative analytical study. It has taken The National Carton Industry (NCI) Company, Nablus, Palestine, as a case study. It used the NCI company annual financial reports' information for three periods (2011, 2012& 2013). This information was obtained from (NCI) website, necessary information derived from these financial statements, and they were summarized and used to evaluate the company's financial health.

This study aims to evaluate the NIC company financial health by using financial ratio analysis method, It includes a three periods analysis for three aspects; profitability, liquidity and solvency.

It found from the comparison of the NCI Company's financial ratios of three periods, that there is a remarkable progression in the profitability indicators in 2013 compared with the previous two years; nevertheless, there is an intense regression in its liquidity and solvency indicators.

It concludes that the company's profitability increased in 2013, while its liquidity and solvency decreased. Accordingly, the earning power of the business is good presently, but its riskiness is too high.

Keywords: Ratio analysis; Performance; Financial position; financial Ratios and Financial health.

1. INTRODUCTION

The main objective that shareholders might have is the desire to maximize the worth of their investment. However, the achievement of this objective requires efficient management in utilization of its resources. Hence, the financial performance of the business needs to be evaluatedand a proper measures need to be applied by shareholders to appraisethe firm efficiency in achievement of their objectives.

According to Ebrahim et al. (2014), the most important factor motivate the investors to come and invest in the company is its performance. Hence, it is the first to be appraised by different kinds of investors. Moreover, the performance evaluation can help the investors to estimate how well the company's management can use its assets, liabilities, equity, revenues and expenses (Faruk & Md. Ahsan, 2010).

According to Anaja Blessing and Emmanuel E. (2015), the financial statement are providing beneficial information for investors, shareholders and other users. The main objective of the financial statements is that they provide needed information about the company's financial position and they provide useful snapshot that allows the shareholders and investors to keep up with company's financial decisions. But they are limited about providing a fair picture about the actual worth of the business. Hence, the financial statements must be measured and interpreted.

According toFlorenz C. and Tugas (2011), financial statement analysis is the process of selecting, evaluating and interpreting the financial information to help the investors and other users in the financial decision making process, and to help them to identify the company's financial weakness and strength. Moreover, the financial statement analysis composes of applying analysis techniques and tools on financial statements to present substantial relationships, acquire valuable information and conclude about company's financial status and its future potentials.

In this regard, Mohammed Nuhu, (2014) observes that a lot of information including in the financial statements are hidden in the figures, and these figures may provide misleading statistics, therefore, the shareholders, investors and other users try to discover the relationships or the ratios among these figures.

However, Ratio analysis is the most proper method through witch shareholders and investors could evaluate and monitor the actual financial wealth of them equity investment. It may compare with the previous years' ratios or with the industry standers' ratios in order to estimate the reveal areas of weaknesses and strengths. Thus, Elijah, (٢٠١٤) noted that financial ratios are used to indicate past situation, compare current performance and may give a denotation to future situation and financial position of the company,

Elijah, (2015) recommended that ratio analysis plays a pivotal role in a business forecasting, and discovering strength, weakness and opportunities of the company. Therefore, ratio analysis helps different users to evaluate the financial performance of one company, its financial ratios will be compared with its past financial ratios, and the comparison of financial ratios over a period of time gives an indication of changes and finds out the company's financial performance and determine areas where financial performance has improved or went to the bad (Ma. Padma, 2016).

2. STATEMENT OF THE PROBLEM

Shareholders need information in order to evaluate the company's financial health and ensure about them equity investment. In addition, this information can be obtained from the financial statements. But the data available in the financial statements need to be analyzed and interpreted to provide the useful information for them.

Thereforethey need for a method to enable them in analyzing the company's financial statements and evaluating its financial health

3. OBJECTIVE OF THE STUDY

The main objective of this study is to measure the financial position and to evaluate the financial health of the NCI Company by using ratio analysis.It included a comparative analysis, for three periods, of three aspects; profitability, liquidity and solvency.

4. HYPOTHESIS OF THE STUDY

Ratio analysis is an effective tool for shareholders and other users to measure the financial position and to evaluate the financial health of the NCI Company.

5. STUDY QUESTIONS

- What is the financial status of the company related to Profitability ratios comparison?
- What is the financial status of the company related to liquidity ratios comparison?
- What is the financial status of the company related to debt management ratios comparison?
- What is the financial status of the company in 201٣ compared with ٢٠١٠&2011?

6. SCOPE AND IMPORTANCE OF RATIO ANALYSIS

Ratio analysis is one of the methods of financial analysis. It used as a technique for evaluating the financial health and performance of a company. The Interpretation and analysis of diversified financial ratios provide the shareholders with better understanding of company’s financial health and performance.
The financial ratios permit for comparisons:-

1) between industries
2) between companies
3) between a single company and its industry average
4) between different time periods for one company

7. PREVIOUS STUDIES

7.1 Study of Manish & Mustafa, Ratio Analysis used to compare the performance of Tata steel and Jindal Steel, (A comparative study), 2013.

This is a comparative analytical study, it has compared the financial performance of Tata steel and Jindal steel by using ratio analysis. After analyzing 8 financial ratios of these two companies, it is clear that the position of Tata steels is better in comparison to Jindal steels.

7.2 Study of Elijah, A Tool for Measuring Organization Performance using Ratio Analysis, 2014.

The study aimed to analyze how ratio analysis can be used to measure performance of anorganizationby using the ratio analysis.The study confirmed thatthere is significant relationship between ratio analysis and organizational performances. Based on the discussions and findings in the course of this study it found that the ratio analysis is a perfect tool of financial analysis

8. LITERATURE REVIEW

8.1 The concept of financial ratio analysis

According to Mukarushema et al. (2016), the financial statements have failed in providing reliable information for the shareholders and the other. And without this kind of information the correct decisions cannot be made by the shareholders, therefore, the financial statements need to be analyzed and interpreted for providing a better understanding about the company's financial status.

And moreover, the financial statement analysis has been defined by Florenz, (2012) as the process of selection a financial statement, measuring and interpreting its data to give better understanding of its information for the investor and other users.

Financial ratio analysis is one of the most important tools in financial statement analysis. It includes comparing the company's performance of one period with another period for the same company, with other company for the same period or with the company's industry average for evaluating its financial status(Florenz, 2012).

Thus, it is hard to judge about the company's financial status without making the needed comparison . Ratio comparison gives the most meaningful measurements for financial statements' information (Mohammed Nuhu, 2014).

8.2 Objectives and uses of ratio analysis

Financial statements' information serves deferent kinds of users, and according to them perspectives, the objectives of the ratio analysis will be determined.

According to Alijah (2014), the main objective of ration analysis is providing information needed for performance evaluation by various groups of user.

According to Mohammed Nuhu (2014), the most uses of ratio analysis are:

- Ratio analysis can evaluate various aspects in the performance of the company.
- It helps in determining the company's ability to pay its short term and long term financial debts.
- It determines whether a company able to stay afloat in the future by paying its debt and interest on the debt.
- It evaluates company's capability in generating profits from its operations.
- It estimates the company's efficiency in sales generating from its assets and liabilities.

8.3 Common ratios used in financial analysis:

8.3.1 Profitability (activity) ratios

These ratios are measure the ability of the company in generating profits relative to sales, and help to determine the company's overall profitability (Elijah, 2014).

A well, profitability ratios called as activity ratios because they show the company's competence to gain profits with regard to the sales made, capital invested and assets employed (Mohammed Nuhu, 2014).

According to Faruk and Md. Ahsan (2010), Profitability ratios include:

- Return of assets
- Return of equity
- Operating profit margin

- Gross profit margin
- Net profit margin
- Asset turnover
- Working capital turnover
- Inventory turnover
- Payables & Receivables turnover

8.3.2 Liquidity ratios

These ratios are used to measure a company's ability in meeting its short term debt obligations and in paying off its short term liabilities at time of payment (Mohammed Nuhu, 2014).

According to Faruk and Md. Ahsan (2010), liquidity ratios are outcome of dividing cash & liquid assets by current liabilities and short term borrowings. They display the number of times that cash and liquid assets can cover the short term debt obligations. And when its value more than one, that is to say short term obligations are completely covered. Liquidity ratios include:

- Current ratio
- Cash ratio
- Quick ratio
- Defensive interval ratio

8.3.3 Solvency (debt) ratio

Debit ratios measure the company's ability to repay its financial obligation, and to obviate financial difficulty in the long term. It indicates the long-term solvency of the company. Hence, these ratios as well called as Solvency ratios (Thomas et al., 2009).

Debit ratios, at times, in good years enhance equity investment, and at times, in bed years weaken investment equity, thus they are known as financial leverage (Idowu & Akinyele, 2015).

According to Thomas et al. (2009), Solvency ratios include:

- Debt Ratio
- Equity Ratio

- Debt-to-equity Ratio
- Debt-to-capital ratio
- Financial leverage ratio
- Interest coverage ratio
- Fixed charge coverage ratio

9. METHODOLOGY

This is an analytical comparative study. It has taken the NCI Company as a case study. This study based on the secondary data, which obtained from the company's annual reportand the details are collected through websites, magazines and journals. The data of three periods (2011, 2012& 2013) are analyzed and summarized by using the comparative financial ratio analysis method.

Following ratios are used for this study:

1. Current ratio: It is one of the best measures of financial strength. It is figured as shown below:

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

2. Quick ratio: It is one of the best known measures of liquidity. It is figured as shown below:

$$\text{QuickRatio} = \frac{\text{Cash + Receivables+ Government Securities}}{\text{Total Current Liabilities}}$$

3. Cash ratio: The cash ratio is used to decide whether a company can meet its short-term liabilities or not. It is figured as shown below:

$$\text{QuickRatio} = \frac{\text{Cash + Cash equivalents}}{\text{Total Current Liabilities}}$$

4. Return on assets: This ratio help to measure how efficaciousearnings are being generated from the assets employed in the company. It is figured as shown below:

$$\text{Return on Assets} = \frac{\text{Net Profit Before Tax}}{\text{Total Assets}}$$

5. Return on equity: The return on equity is also known as the return on investment, It is the best measure of the company's return.It is figured as shown below:

$$\text{Return on Equity} = \frac{\text{Net Profit}}{\text{Average Stockholders' Equity}}$$

6. Operating profit margin:It is the income, which left on the income statement, after all operating costs & overhead. It is often called earnings before income and taxes. It is figured as shown below:

$$\text{Operating Profit Margin} = \frac{\text{Operating Income}}{\text{Sales Revenue}}$$

7. Net profit margin: This ratio is the percentage of sales left after deducting the Cost of Goods sold and all other expenses, except the income taxes.It is figured as shown below:

$$\text{Net Profit Margin Ratio} = \frac{\text{Net Profit Before Tax}}{\text{Net Sales}}$$

8. Debt-to-assets ratio: This ratio helps to measure the relationship between total debt and equity of the business in supporting of its assets. It is figured as shown below:

$$\text{Debt-to-assets ratio} = \frac{\text{Total Liabilities}}{\text{Total Assets}}$$

9. Debt-to-equity ratio: This ratio indicates the range to which the company is reliant on debt to finance its operations. It is figured as shown below:

$$\text{Debt-to-equity ratio} = \frac{\text{Total Liabilities}}{\text{Net Worth}}$$

10. Debt-to-capital ratio: It is a measurement of the financial leverage of the company.It is figured as shown below:

$$\text{Debt-to-capital ratio} = \frac{\text{Total Debt}}{\text{Total Capital}}$$

11. Current debt-to-total debt ratio: This ratio helps to determine the company's short-term debt in regards to its long-term debt.It is figured as shown below:

$$\text{Current debt-to-total debt ratio} = \frac{\text{Current Debt}}{\text{Total Debt}}$$

10. DATA ANALYSIS AND DISCUSSION

10.1. Profitability ratios

Table 1: Calculating profitability ratios of NCI Company for three periods

Source: National Carton Industry Company

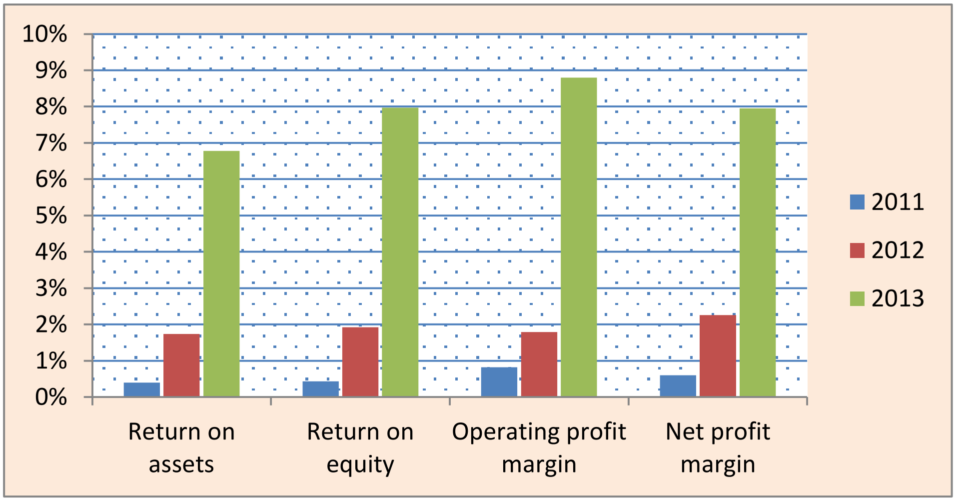

Figure 1: Showing profitability ratios of NCI Company for three periods

From the profitability ratios calculated in the table 1 and showed in the figure 1, it is clear from the comparison of the three period's ratios that return on assets, return on equity, operating profit margin and net profit margin ratios are increasing in 2012 compared with 2011& 2012 ratios due to the large amount of money spent on the investment activities like buying of financial assets, and the increasing of these profitability ratios indicates progression of the company's earning power. Therefore, its profitability is growing.

10.2. Liquidity ratios

Year / Ratio	2011	2012	2013
Current ratio	12.19%	7.39%	4.80%
Quick ratio	10.21%	6.28%	4.22%
Cash ratio	1.76%	0.80%	0.68%

Table 2: Calculating liquidity ratios of NCI Company for three periods l
Source: National Carton Industry Company

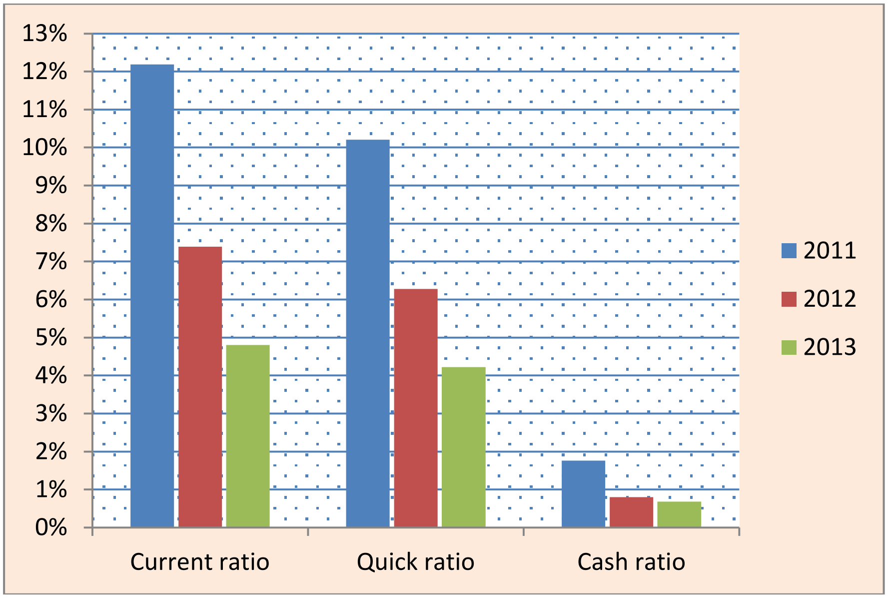

Figure 2: Showing liquidity ratios of NCI Company for three periods

From the liquidity ratios calculated in the table 2 and showed in the figure 2, it is clear from the comparison of the three period's ratios that the current, quick and cash ratios are decreasing in 2013 compared with 2011& 2012 ratios due to the increasing of accounts receivables and the increasing of the company's by 10.7% in 2013 compared with 2012. In addition, the decreasing of these liquidity ratios indicates regression of the company's ability to meet its short-term debt. Therefore, its Liquidity is declining andits riskiness is increasing.

10.3. Solvency ratios

Ratio \ Year	2011	2012	2013
Debt-to-assets ratio	6.51%	9.41%	13.82%
Debt-to-equity ratio	6.97%	10.38%	13.92%
Debt-to-capital ratio	7.47%	11.34%	18.46%
Current debt-to-total debt ratio	74.61%	81.82%	86.84%

Table 3: Calculating solvencyratios of NCI Company for three periods

Source: National Carton Industry Company

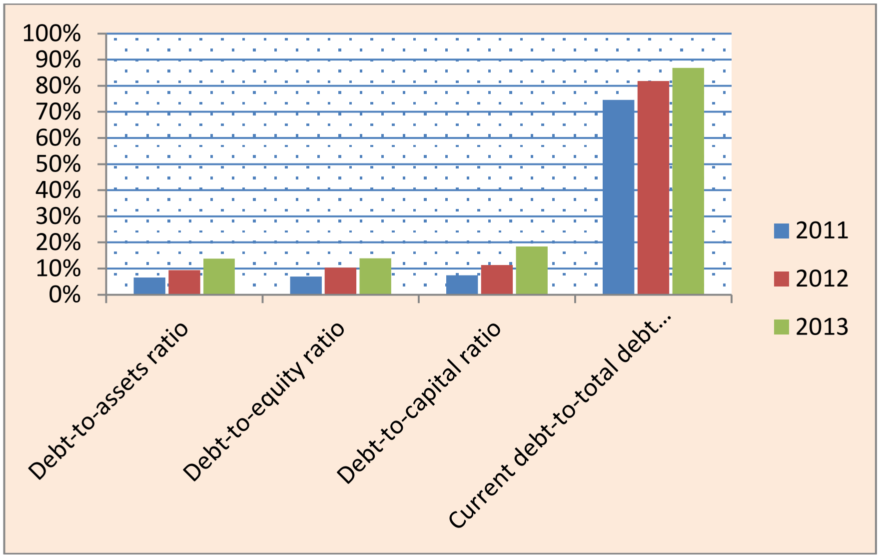

Figure 3: Showing solvency ratios of NCI Company for three periods

From the solvency ratios calculated in the table 3 and showed in the figure 3, it is clear from the comparison of the three period's ratios that debt-to-assets, debt-to-equity and debt-to-capital ratios are increasing in 2013 compared with 2011& 2012 ratios, this increasing happened due to increasing of accounts payable, income tax provision& other current liabilities. In addition, the increasing of these debt ratios indicates regression of the company's ability to meet its long-term debt. Therefore, its solvency is declining and its ability to pay debt obligations is going down.

11. CONCLUSION

The ratio analysis aids to evaluate the financial health of the company and interpret the salient feature in its financial statements. Thus, it helps the shareholders and other users to avoid making any wrong judgments, conclusions or decisions and evaluating the financial performance of the company.

After comparing the above ratios in the NCI Company for three periods, it is clear that the company's profitability in 2013 better that the last two years, while its liquidity and solvency are less in 2013 compared with the last two years. Accordingly, the earning power of the business is good presently (in 2013) and better that its earning power in 2011& 2012, but its riskiness in 2013 is too high compared with 2011& 2012. Therefore, the stockholders and investors should know that the improvement of the profitability ratios is not good news because this is happening due to the current management policy, which want to increase the operating activities in short-term regardless the long-term possible consequences which represented by liquidity problems and perhaps bankruptcy.

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