ANALYSIS OF A COMPANY'S PROFITABILITY, SOLVENCY AND LIQUIDITY

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A company's financial statements provide various financial information that investors and creditors use to evaluate a company's financial performance.

Moreover, it is very important to monitor a wide range of 'performance indicators' in the business, in order to ensure that appropriate economic decisions and plans can be made. Given that sales, profit margins and cash flow are the lifeblood of any business, owners should place particular emphasis on receiving regular reports on these areas of the business.

There are many users of company's financial statements and each of them have their own specific interest and information needs in order to take an economic decision. For example :

1) Investors are concerned with risk inherent in, and return provided by, their investment. They need information :

- To help them determine whether they should buy, hold or sell their shares, investment in the company.
- That enables them to assess the performance of management.

2) Employees are interested in stability and profitability, and the ability of the company whether it has enough cash to provide salaries;

3) Lenders, Banks are interested in information that enables them to assess whether their loans and interests will be paid when dues, and other users of financial statements.

In order to get this information ration analysis is useful and effective. They focus attention on trends and weaknesses and facilitate comparison over time, between companies, also industry averages and so on. They can be grouped into 5 categories:

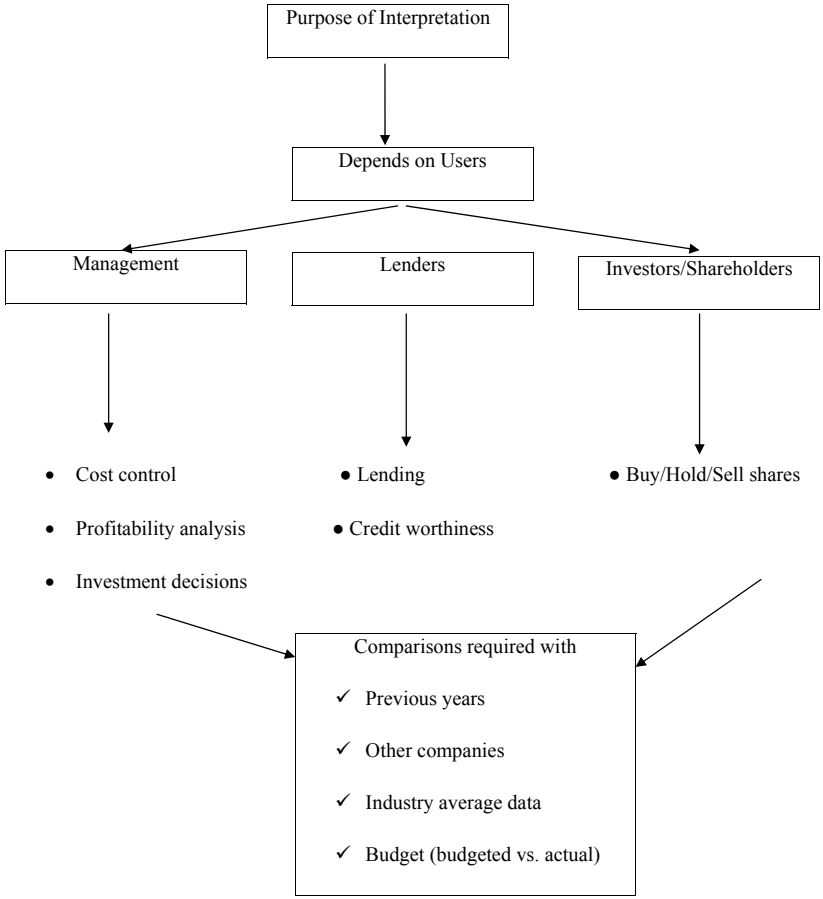
- Profitability and Return (performance)
- Short-term solvency and liquidity
- Long-term solvency and stability
- Efficiency
- Investors' ratios

Please find below the table in order to have a general idea about the reason, purpose of analyze and interpretation of financial statements according users **(See The illustration)**.

To illustrate the calculation of ratios, the following draft statement of financial position and income statements figures of one company will be used.

"International Auditing Service" Co Income Statement

	2011	2010
For the year ended 31 December	GEL	GEL
Sales Revenue (90 % on credit terms)	2 000 500	3 350 000
Cost of Sales	2 400 000	1 550 500
Gross Profit	950 000	450 000
Administration Expenses	590 000	210 000



Operating Profit	360 000	240 000
Interest Expenses	16 300	21 000
Profit before taxation	343 700	219 000
Profit Tax	51 555	32 850
Profit for the year	292 145	186 150

“Computer Service” Co Income Statement

	2011	2010
For the year ended 31 December	GEL	GEL
Non-current Assets		
Property, Plant and Equipment	790 000	660 000
Current Assets:		
Inventory	64 000	90 000
Receivables	173 200	156 300
Cash at bank	524 800	473 700
Cash	301 500	258 000
	1 063 500	978 000
Total Assets	1 853 500	1 638 000
Equity and Liabilities		
Equity		
Ordinary Shares 10t.each	200 000	200 000
Retained Earnings	650 000	430 500
	850 000	630 500
Non-current Liabilities:		
10 % loan	100 000	100 000
Current Liabilities (Trade payable-30%)	903 500	907 500
Total Equity and liabilities	1 853 500	1 638 000

Firstly, we should start from Profitability ratios:

$$\textbf{ROCE} = \frac{\text{Profit before interest and taxation}}{\text{Total Assets less current liabilities (capital employed)}}$$

ROCE 2011 = (343 700+16 300)/ 1 853 500- 903 500= 37. 89 %

ROCE 2010= (219 000+ 21 000) / 1 638 000- 907 500= 32.85 %

ROCE–"Return on capital employed" may be used by the shareholders or the Board to assess the performance of management measures return achieved by management from assets which were employed, they control, before payments to lenders or shareholders or in other words, ROCE states the profit as a percentage of the amount of capital employed. It should be considered that old assets with low carrying values will lead to a high ROCE, whereas just acquired assets result in low coefficient as the new asset will not have reached its optimum performance levels.

$$\text{Gross profit Margin} = \frac{\text{Gross Profit X 100}}{\text{Sales}}$$

GPM % 2011= (950 000/ 3 350 000) * 100= 28.35 %
GPM % 2010= (450 000/ 2 000 500) * 100= 22. 49 %

This measures margin earned by company on sales. A high profit indicates a high profit on each unit sold.

Second, from liquidity ratios short-term and long-term ratios are calculated. Liquid assets are current assets that will or could be soon converted into cash, and cash itself. Short-term liquidity ratios are used to assess a company's ability to raise money quickly to settle all its debts. Below are the key ratios calculated:

		2011		2010	
Current Ratio =	$\frac{\text{Current Assets}}{\text{Current Liabilities}}$	$\frac{1\,063\,500}{903\,500}$	= 1.17	$\frac{978\,000}{907\,500}$	= 1.08
Quick Ratio =	$\frac{\text{Current Assets - Inventory}}{\text{Current Liabilities}}$	$\frac{1\,063\,500 - 64\,000}{903\,500}$	= 1.11	$\frac{978\,000 - 90\,000}{907\,500}$	= 0.98

Current ratio (Acid test) measures adequacy of current assets to cover current liabilities. This should be expected in excess of 1(2:1). However, the current ratio is of limited use as inventory may not be readily convertible into cash, other than at a large discount. Thus quick ratio is better as it omits inventory. This ratio should be at least 1 for companies with a slow inventory turnover for example jewelry business ; and less than 1 with fast inventory turnover f. ex. in supermarkets.

Banks and lenders will be interested in a company's gearing level. The Gearing ratio is a measure of the proportion of a company's capital that is debt. It can be regarded as an attempt to quantify the degree of risk involved in holding equity shares in a company. This risk can be: The ability to remain in business and ability to pay dividends. Gearing coefficients indicate to shareholders the sensitivity of profits and dividends to changes in profitability and activity level.

$$\text{Gearing} = \frac{\text{Interest bearing debt}}{\text{Shareholders' equity+ Interest bearing debt}} \text{ X } 100\ \% \ ;$$

$$\text{Gearing 2011} = \frac{100\ 000 * 100\%}{50\ 000 + 100\ 000} = 10.53\%$$

$$\text{Gearing 2010} = \frac{100\ 000 * 100}{630\ 500 + 100\ 000} = 13.69\%$$

The average limit for this ratio is near 50 %. Above this it is said to be high-geared and this shows an increased risk for shareholders as, if profit fall, debts will still need to be financed, leaving smaller profits available to distribute to shareholders. Companies with low gearing (<50%) are likely to find it easier to borrow and even borrow cheaply than if gearing is high. Leverage is an alternative term for gearing, by calculating the proportion of total assets financed by equity (not by debt), and which may be called the equity to assets ratio:

$$\text{Leverage} = \frac{\text{Shareholders' equity}}{\text{Shareholders' equity+ Interest bearing debt}} \text{ X } 100\ \%;$$

Leverage 2011= 850 000 /(850 000 +100 000)= 89.47 %

Leverage 2010 = 630 500 /(630 500+100 000)=86. 31 %

The debt ratio is the ratio of a company's total debts to its total assets. This ratio shows whether the entity is getting into heavier debt or improving its situation, and whether its debt burden is heavy or light. The Interest cover ratio (ability to pay interests) should exceed 3 times.

$$\text{Debt ratio} = \frac{\text{Total Debts}}{\text{Total Assets}} * 100 \ ;$$

Debt ratio 2011 = (100 000+903 500)/ 1 853 500= 54 %

Debt ratio 2010= (100 000+ 907 500) / 1 638 000= 61 %

$$\text{Interest cover} = \frac{\text{Profit before interest and tax}}{\text{Interest payble}} \ ;$$

% cover 2011= (343 700+16 300)/ 16 300= 22 times

% cover 2010= (219 000+ 21 000)/ 21 000= 11 times

Efficiency ratios represent working capital ratios. They are a significant indicator of management efficiency in running the business effectively, it is most profitable to minimize the level of working capital employed in the business.

$$\text{Inventory turnover period} = \frac{\text{Closing Inventory}}{\text{Cost of sales}} \text{ X } 365 \text{ days} \ ;$$

ITP 2011= (64 000/2 400 000)* 365= 10 days

ITP 2010=(90 000/1 550 500)* 365= 21 days

The lower is the number of days it takes to turn inventory over once , the better is the situation. High rates means efficient but risk of stock outs increased, and the low inventory turnover rate seems inefficient use of

resources and potential obsolescence problems. Next ratio ratio measures period of credit taken by customers. Ideal collection period is approximately 30-40 days, depending on the type of industry. A change in this ratio may indicate 1) bad debt/collection problems, 2) change in nature of customer base(big new receivable-slow payer), 3) change in settlement terms and so on:

$$\text{Trade Receivables collection period} = \frac{\text{Trade receivables}}{\text{Credit Sales}} \text{ X } 365 \text{ days}$$

TRCP 2011= (173 200/2 000 500*90%)*365= 35 days
TRCP 2010=(156 300/ 3 350 000*90%)* 365=19 days

The final working capital ratio is Trade Payables payment period, that measures number of dates credit taken by company from suppliers. High figure may indicate liquidity problems. It is calculated in this way:

$$\text{Trade Payables payment period} = \frac{\text{Trade Payables}}{\text{Purchases (Cost of Sale)}} \text{ X } 365 \text{ days}$$

TPPP 2011=((903 500*30%)/2 400 000)*365=41 days
TPPP 2010=((907 500*30%)/1 550 500)*365= 64 days

All the above mentioned three working capital ratios give an indication of whether a business is able to generate cash as fast as it uses it. They also provide useful comparisons between businesses, e.g. on effectiveness in collecting debts and controlling inventory levels and their obsolescence.

Investors' ratios help to establish characteristics of ordinary shares in different companies, e.g.

❖ Earnings per share will be important to those investors looking for capital growth

❖ Dividend yield, dividend cover and dividends per share will be important to those investors seeking income.

	2011	2010

$$\text{Earnings per share} = \frac{\text{Net profit to ordinary shares}}{\text{Average number of shares}} = \frac{292\,145}{38\,953} = 7.5 \quad \frac{186\,150}{46\,538} = 4$$

$$\text{Dividend Cover} = \frac{\text{Earnings per share(EPS)}}{\text{Dividend per (ordinary) share}} = \frac{7.5}{2.5} = 3 \text{ times} \quad \frac{4}{2} = 2 \text{ times}$$

$$\text{Dividend yield} = \frac{\text{Dividend per share}}{\text{Current market price per share (ex div)}} = \frac{2.5}{3.5} = 0.71 \quad \frac{2}{3} = 0.67$$

$$\text{Price/Earning (PE) ratio} = \frac{\text{Current market price per share}}{\text{EPS}} = \frac{3.5}{7.5} = 0.47 \quad \frac{3}{4} = 0.75$$

EPS represents the amount of net profit to each ordinary shares. Dividend Cover ratio shows the proportion of profit for the year available for distribution to shareholders that has been paid and what proportion will be retained in the business to finance future growth. Dividend yield is the return a shareholder is currently expecting on the company's shares. For this ratio dividend per share is taken as the dividend for the previous year, and Ex-div means that share price does not include the right to the most recent dividend. Price/Earning (PE) ratio is a company's current share price to the earnings per share. High PE ratio indicates strong shareholder confidence in the company's profit growth, and lower rate –lower confidence.

Finally, we should make an overall analyze of the company's financial statements based on Profitability , Short-term solvency and liquidity, Long-term solvency and stability, Efficiency and Investors' ratios. Discussing the company's trading and profitability, from the data above calculated is seems that ROCE has increased 5 %, this is maybe due to the decrease in the interest expenses – 21000 (2011) less 16300 (2012)=4700 GEL that generally decreases the profit.

What is more, Gross profit margin by 5.86 % (28.35-22.49) comparing 2011 and 2010 years. However 90 % of sales revenue are sales on credit terms, this has not distorted the profit , it balances the increase in price and also increase in profit margin. This company has problems in collection of receivables, it has to change its credit policy, not allowing to wait for 35 days in 2011, when it was only 21 days in 2010. This situation has not resulted in critical liquidity problems, because management decided to finance the company not by debt but by equity –Leverage is increased by 3.16 %, and Gearing and Debt ratio were reduced in 2011 by 3.16 %(13.69-10.53) and by 7% (61%-54%). Referring working capital ratio-Inventory turnover period has decreased from 21 days to 10 days. The reason can be writing off obsolete inventory-quick ratio was increased in 2011 -1.11 or the management has found other best suppliers. Discussing Investors' ratios - EPS (7.5-4=3.5) , Dividend yield(0.67-0,71=0.04) and dividend cover(from 2 to three times) are increased in 2012 . The company has distributed dividends, but the Price / Earning ratio is reduced from 0.75 to 0.47 in 2011. Thus shareholders' confidence has decreased because truly dividend were distributed 3 times but it is under question whether the company will be able to do so in future, there are liquidity, receivables collection problems that influence on the entity's reputation.

Thus, from overall financial analyze of the above mentioned company's activity is neither in best situation, nor in bad. It is low-geared, gearing and debt ratios are not critical and it can take a cheap credit for financing the entity's activity . But the company's existence and activity will be at risk if this situation continues for a long time .The management has to change its strategy, policy considering different factors.

Finally, as we see analyzing of the company's profitability, solvency and liquidity play a important role in evaluating entity's performance. In summary, financial statements and other key performance indicators should be prepared on a regular and consistent basis and compared with prior periods or average industry data. Monitoring performance using successive quarterly or annual accounts can show trends that otherwise might not be apparent.