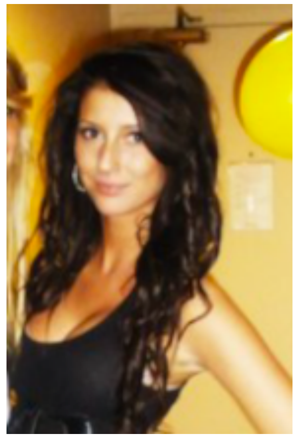
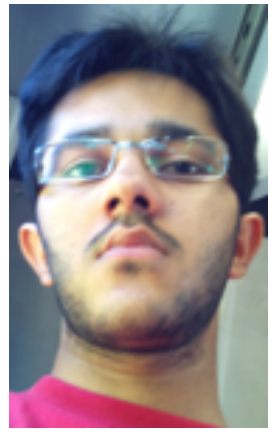
CCT224 Assignment 2- Financial Ratios

GROUP MEMBERS :

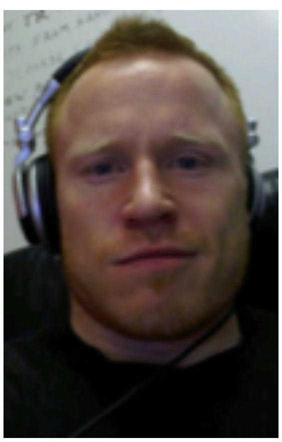
MAYAKI, PATRICK



OGRODNIK, ULANA



PARIKH, TANMAY



PAYNE, BRETT

SANKAR, RAVI

SAJJAD, AYESHA

Link to online presentation: http://prezi.com/yo2uk9uls4hf/cct224-profitability-ratios/

Profitability Ratios

1. What is it and what is it used for?
2. What does it tell you and why is that important?
3. Media Stories
4. Sources
5. Something interesting and useful you learned about this ratio

The Big Picture Questions (Context)

Why?
As per the name of the class suggests (Performance Assessment) we as super smart and savvy business people need someway to understand how well a business is doing relative to it's previous performance, as well as compared to other business (also known as benchmarking).

How?
Ratio Analysis – Specifically Profitability Ratios!

What?
Ratio Analysis is a way to assess a firm's financial condition and performance done through calculations and interpretations of financial results derived from the firm's financial statements.

Profitability Ratios are one of many types of ratio analyses that exist. Generally speaking Profitability Ratios measure how effectively a firm is using it's various resources to achieve profits over a specific period of time.

Who?
Ratio Analyses are often performed by financial accountants inside and outside a firm, however a number of groups stand to benefit from this type of information including, business owners, investors, bankers, and governments to name a few.

When?
The following are guidelines. Recommended use is to be kept between business hours only otherwise you run the risk of being mistaken for a huge nerd. (ie: Do not spit "Profitability Ratio" game at the club). If by chance you find someone that wants to talk about this while socializing, chances are they know waaaaay more about it than you and inevitably you'll end up looking like an ass when you are unable to reciprocate w an intelligent response.

The Details - Profitability Ratios

Definition
Profitability ratios are a vital measurement of company growth and management performance. They are used to assess a business' ability to generate earnings as compared to expenses over a specified period of time.

These ratios give stakeholders a picture of the business' performance, specifically in terms of efficiency of resources employed to generate profit and shareholder value.

Generally speaking profitability ratios may be lumped into two main categories. Those based on sales information and those based on a business's investment practices.

In the first category, indicators such as profits and expenses are analyzed. We are interested in this type of information because although a company may be demonstrating an increase in profits, they may not be doing a good job of controlling their operating costs. High overhead costs can easily erode any benefits realized from an increase in a company's sales.

The second category deals with indicators focused on a company's investment practices. We are interested in this type of information because it provides us with insight as to how effectively a company is able to generate returns given their available capital base.

In either case, we look to the figures available to us on an organizations financial statements to calculate these ratios.

Three key ratios which we will be exploring include: Gross Profit Margin, Operating Profit Margin, and Return on capital employed ("ROCE").

A bit about Profit Margins

Practical business sense suggests the higher a company's profit margin the better off they are. Unfortunately profit margins alone do not afford us enough information to make an informed decision about a company's success. Factors such as market volatility can directly impact profit margins. Furthermore in some industries it is more acceptable to maintain lower profit margins. In others, low profit margins may mean that a company is not well positioned to sustain themselves through an economic downturn. Conversely, if a company maintains higher profit margin relative to the industry it's in, it would be worthwhile investigating further to ensure they are not misrepresenting their figures (can you say "ENRON"?).

<u>**Gross Profit Margin**</u>

Gross Profit Margin is an example of a ratio calculation derived through the analysis of profit margins. This ratio falls beneath the broader category of sales based analyses as mentioned earlier.

Gross profit Margin is calculated using the following formula:

Gross Margin (%) = (Revenue – Cost of Goods Sold) / Revenue

This calculation represents a percent of total sales revenue (after taxes) that a company withholds after paying off all direct costs associated with producing the particular goods and/or service produced.

Typically Gross Profit Margins are expressed as a percentage output. The higher the percentage, the more a company earns from each dollar of sales.

This concept illustrated through an example would look something like this:
A company with a Gross Profit Margin of 35% indicates they keep $0.35 from each dollar of revenue earned after covering their basic costs incurred.

Operating Profit Margin

Also known as the 'Coverage Ratio', the Operating Profit Margin is an example of a second ratio calculation derived through the analysis of profit margins. This ratio also falls beneath the broader category of sales based analyses.

Operating Profit Margin is calculated using the following formula:

Operating Margin = Operating Income/Net sales

The Operating Profit Margin is used to measure a company's pricing strategy and operating efficiency. Put another way, it provides us with insight as to what is left over from a company's revenue once they have covered their variable costs of production (things like wages and raw materials). Essentially, the Operating Profit Margin ratio helps us understand how much a company makes on each dollar of sales (before interest and taxes).

Organizations rely on healthy operating margins in order to ensure they can afford to pay for their fixed costs including interest on any debts they maintain.

This particular ratio is best evaluated over time as a companies release their quarterly and yearly figures, as well as in direct comparison with competing companies within the same industry.

Typically, Operating Profit Margins are expressed as a percentage output. If a company's Operating Profit Margin is trending upwards, that can be interpreted as it is consistently earning more per dollar of sales collected.

Illustrated through an example the concept would look something like this:

A company demonstrating an Operating Margin of 12% indicates, they keep $0.12 for every dollar of sales earned (before interest and taxes).

Return on Capital Employed

Return on Captial Employed (ROCE) is the third ratio calculation we'll look at. This ratio falls beneath the second category of investment based analyses mentioned earlier.

Return on Capital Employed is calculated using the following formula:

(ROCE) = Net Income/Capital Employed

Where Capital Employed is calculated as:
Capital Employed = Average Debt Liabilities + Average Shareholders' Equity

In short, this calculation helps us understand how well a company is generating returns relative to what has been invested in the business. ROCE provides us with insight as to how a company's use of leverage impacts their profits. Factoring debt into a company's total capital is deemed to offer a more detailed evaluation of how well management is using the debt and equity it has at its use currently. This in turn gives stakeholders a clearer picture of the company's profitability.

Typically, ROCE is expressed as a percentage. Determining the ROCE ratio allows one to make comparisons to the company's average borrowing rate. The ROCE ratio should be at or above this rate.

Illustrated through an example the concept would look something like this:
A company demonstrating a ROCE of 8% suggests that they are offering a return of $0.08 for every dollar invested in their company. What's important to note here is that ROCE rates vary greatly by industry.

Literature suggests ROCE is a key, if not 'the key', factor in determining a company's profitability.

The Importance - Profitability Ratios and Performance Assessment

Why use profitability ratios for performance assessment, you may ask?
Profitability ratios are key performance measures as they apply strict conditions to help stakeholders determine whether a company is successful or not, in terms of profit. Basically, they give stakeholders a picture of the business' performance, specifically in terms of efficiency of resources employed to generate profit and shareholder value.

How to analyze performance assessment using profitability ratios:
One of the most useful techniques for measuring performance is cross-sectional analysis, which compares the target company to its competitors within the industry. This gives a better reference point for comparison than raw figures in a company's books.

Example:
In a company's books, increased sales may typically suggest higher earnings, but only if a company's management is able to maintain its debt, and incurring costs and expenses, better than its competitors.

The very important details:
The ratios derived from calculating *Gross Profit Margins* and *Operating Profit Margins* help stakeholders keep score, as measured over time, of management's ability to manage costs and expenses, and generate profits. The success, or lack thereof, of this important management function is what determines a company's profitability.

In production oriented companies, the Gross Profit Margin is used to analyze how efficiently a company is using its raw materials, labour and manufacturing-related fixed assets to generate profits. Companies more service-oriented, like retailers, typically cannot obtain an exact cost of sales so this is recorded as 'cost of services' instead. However, managers of both types of firms cannot exert much control over these costs, which is why Operating Profit Margins are somewhat more reliable in analyzing manager performance because of the increased ability to control operating expenses. Positive and negative trends in this ratio are, for the most part, directly attributable to management decisions.

The Return of Capital Employed (ROCE) ratio is a very important measure used in performance assessment because factoring debt into a company's total capital provides a more comprehensive evaluation of how well management is maintaining its debt. This gives stakeholders a clearer picture of the company's profitability since determining the ROCE ratio allows us to make comparisons to the company's average borrowing rate; in every case the ROCE ratio should either be at or above this average borrowing rate.

Profitability Ratios in the Media!
Enzo Life Sciences
In an article on MarketWatch.com, *Enzo Life Sciences's* fiscal year report was analysed. There was reference made to Gross Profit Margins in the context of positive performance. They reported an increase to $48.2 million from $45.0 million in the previous year, which reportedly brought the Gross Profit Margin to 47% from 46%.

This tells us that compared to last year, *Enzo Life Sciences* has improved its net sales while paying off producing costs efficiently, per dollar earned. Since the Gross Profit Margin is 47%, this means that $0.47 of every dollar is retained by the company (after taxes), after paying off production costs.

Important note:
Looking at just the company’s book is not enough information to make a sound investment decision. You need to know more than just the revenue earned by the company. Ask yourself; can this company pay off its production costs and still have a positive and relatively high growth rate?

Reliance Industries
LiveMint.com posted a similar article reporting on *Reliance Industries* performance and made reference to the Operating Profit Margin. The article read “Though revenues and (earning before interest and taxes) from the petrochemical business showed healthy (year-on-year) and (quarter-on-quarter) growth, the operating profit margin declined to 11.5% from 12.1% in the June quarter.” This point was followed up with assurance that as long as revenue was consistent with the previous’ quarter, there would not be cause for concern. This point was made because of the aforementioned reliability of Operating Profit Margins in assessing performance.

This shows us a picture of *Reliance Industries’* Operating Profit Margins, and how well they are able to cover their variable costs of productions such as, wages and raw materials. *Reliance Industries’* Operating Profit Margin ratio declined from 12.1% to 11.5%. This tells us that compared to last year’s earning of $0.12 per dollar earned, the company now retains $0.11 from every dollar earned (before taxes), after paying off its variable costs of productions. The decline tells us that the company is earning less relative to last year’s earnings since it cannot pay off its increasing variable costs of productions and still retain decent profit per dollar earned.

Sappi
Global pulp, paper and cellulose-based solutions group Sappi reported announced its new strategy for growth amidst current market conditions. This new strategy, which involves “continuing to optimize its better performing businesses; fixing underperforming businesses; investing for future growth in higher margin businesses; and achieving this within the reality of the group's liquidity and balance sheet” is evidently heavily influenced by the information received from these ratios. Furthermore, it stated its “aim to generate at least 60% of operating profit from these higher margin growth businesses within three to five years, achieving real growth in the revenue line and asset base and exceeding our minimum ROCE target of 12%”.

This tells us that *Sappi* wants to increase its ROCE target of 12% through a strategy. What this means is that *Sappi* wants to offer a return of $0.12 or higher, for every dollar invested in their company. An important note here is that the ROCE rate for *Sappi* must be at or above the borrowing rate, to ensure that they have increasing returns and can manage their debts comfortably.

Something Interesting and Useful we learned about Profitability Ratios:
Profitability ratios are very interesting as they give useful insight about companies' performance levels. It is important to note however that comparing these ratios should be done in conjunction with mindful consideration of other organizations within the depends entirely on how other companies in the industry are doing. It won't be a good idea to have a specific preferred value for each ratio on which the company's condition can be assessed. For example, for one particular ratio, the preferred value would be 0.30 and if the company's ratio is below that than its unprofitable. Analyzing the companies this way will not give you an accurate idea because the conditions of the economy are always changing. There might be a recession going on and having a ratio of 0.20 (which is below the preferred value) might actually be a good thing in tough economic times.