Analysis of Accounting Ratios

M B G Wimalarathna
(FCA, FCMA, MCIM, FMAAT, MCPM)(MBA–PIM/USJ)

Ratio Analysis

A popular tool used to conduct a quantitative analysis of information in a company's financial statements. *Ratios are calculated from current year numbers and are then compared with previous years, other similar companies, the industry, or even the economy to judge the performance of the company.*

Key Categories of ratios are as follows;

- ❑ Profitability.
- ❑ Efficiency.
- ❑ Liquidity.
- ❑ Gearing/Capital Structure.
- ❑ Investors/Market Performance. *(Investors' point of view.)*

From the View point of the Company/Key Management.

Profitability Ratios

What does this **measure & indicate** to users/Stakeholders?

What are the main two categories?

1. ROE. (Return On Equity)
  What?
  How to calculate?

$$\frac{\text{NP. atri. O/SHS.}}{\text{Avg. Equity}} \times 100$$

2. ROA. (Return On Assets)
  What?
  How to calculate?

$$\frac{\text{EBIT}}{\text{Avg. Assets}} \times 100$$

3. GP Margin. (Gross Profit))
   What?
   How to calculate?

$$\left\{ \frac{GP}{Total\ Sales}\ x100 \right\}$$

4. OP Margin. (Operating Profit))
   What?
   How to calculate?

$$\left\{ \frac{OP}{Total\ Sales}\ x100 \right\}$$

5. NP Margin. (Net Profit))
   What?
   How to calculate?

$$\left\{ \frac{NP}{Total\ Sales}\ x100 \right\}$$

Efficiency Ratios

What does this **measure & indicate** to users/Stakeholders?

1. Asset Turnover Ratio

$$\left\{ \frac{\text{Total Sales}}{\text{Avg. total Assets}} \right. \\ \text{(Times / x)}$$

What?

How to calculate?

2. Inventory/Stock Turnover Ratio

$$\left\{ \frac{\text{Cost of Sales}}{\text{Avg. Stock}} \right\}$$

What?

How to calculate?

3. Debtors Turnover Ratio

$$\left\{ \frac{\text{Total Credit Sales}}{\text{Avg. Drs.}} \right\} \quad \textit{Why average?}$$

What?

How to calculate?

4. Stock Residency Period - Direct/Indirect

What?

How to calculate?

$$\left\{ \frac{\text{Avg. Stock}}{\text{Cost of Sales}} \text{ x 365/50/12} \right\}$$

5. Debtors Collection Period - Direct/Indirect

What?

How to calculate?

$$\left\{ \frac{\text{Avg.Debtors}}{\text{Total Credit Sales}} \text{x365/50/12} \right\}$$

6. Activity Cycle

What?

How to calculate?

$$\left\{ \text{SRP} + \text{DCP} \right\}$$

• *If Figures are not available*, how to calculate?

Liquidity Ratios

What does this **measure & indicate** to users / stakeholders?

1. Current Ratio.
$$\left\{ \frac{CA}{CL} \right\}$$ *What is best for the company???*

What?
How to calculate?

2. Quick Asset/Acid Test Ratio.
$$\left\{ \frac{(CA - St.)}{CL} \right\}$$ *Traditional. Is this correct?*

What?
How to calculate?

3. Cash Flow Ratio.

$$\left\{ \frac{NCF. \, OP. \, act}{CL} \right\}$$

What?
How to calculate?

4. Cash Cycle.

Cash ratio is also can use and which is treated as extreme measurement of liquidity.

Gearing/Capital Structure Ratios

What does this **measure & indicate** to users / stakeholders?

1. Debt to equity Ratio/Gearing.

What?

$$\frac{\text{Total Liabilities}}{\text{Total Equity}} \times 100$$

Is high or low, good?

How to calculate?

2. Debt Ratio.

$$\frac{\text{Total Liabilities}}{\text{Total Assets}} \times 100$$

What?
How to calculate?

3. Equity Ratio.

What?
How to calculate?

$$\left\{ \frac{\text{Total Equity}}{\text{Total Assets}} \text{ x 100} \right\}$$

4. Interest Coverage Ratio.

What?
How to calculate?

$$\left\{ \frac{\text{EBIT}}{\text{F/Cost}} \right\} \textit{Sometimes, efficiency.}$$

5. Debt Coverage Ratio.

What?
How to calculate?

$$\left\{ \frac{\text{NCL}}{\text{NCF.op.act}} \right\}$$

Investors'/Market Performance Ratios

What does this **measure & indicate** to users / stakeholders?

1. Net Tangible asset backing per share

$$\frac{(OS/HE-IA)}{O/SC}$$

What?

How to calculate?

2. EPS

$$\frac{NP.\ atri.OSHs}{WA.\ O/Sc}$$

What?

How to calculate?

3. Operating cash flow per share

$$\frac{(NCF.\ op.\ -\ Pr.\ Divi)}{WA.\ O/Sc}$$

What?

How to calculate?

4. Dividend per share $\left\{ \dfrac{\text{Divi. paid + proposed}}{\text{WA. O/Sc}} \right\}$

What?

How to calculate?

5. PE Ratio $\left\{ \dfrac{\text{MPS}}{\text{EPS}} \right\}$

What?

How to calculate?

DuPont Analysis

A method of performance measurement that was started by the DuPont Corporation in the 1920s. With this method, assets are measured at their gross book value rather than at net book value in order to produce a higher return on equity (ROE).

It is also known as "DuPont identity".

DuPont analysis tells us that ROE is affected by three things:
- *Operating efficiency, which is measured by profit margin*
- *Asset use efficiency, which is measured by total asset turnover*
- *Financial leverage, which is measured by the equity multiplier*

ROE = Profit Margin (Profit/Sales) * Total Asset Turnover (Sales/Assets) * Equity Multiplier (Assets/Equity) **[03 factor analysis]**

ROE = EBIT Margin (EBIT/Sales)*Interest Burden (EBT/EBIT)*Tax Burden (Net Income/EBT)*Asset Turnover (Sales/Assets)* Equity Multiplier (Assets/Equity)

Ratio Analysis Vs Other Techniques

❑ Why Ratio Analysis **become more popular** than other techniques?

❑ **Is Ratio Analysis best** for AFI? Shortcomings of ratio analysis.