**RATIOS ANALYSIS**

- A financial ratio is a relationship between financial variables and helps ascertain

financial condition of the firm.

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Ratio analysis is a means of comparing and quantifying relationships between financial variables in the statement of comprehensive income and the Statement of financial position.

With ratios, financial statements can be interpreted and usefully applied to satisfy the needs of the users of financial statements.

**Uses of ratios**

* + Enable comparability (both trend and industry)
  + Give liquidity position
  + Give profitability
  + Show the gearing levels

**Classification of ratios**

###### Profitability ratios

They measure the management’s effectiveness as shown by returns generated on sales and investment. They indicate how successful management has been in generating profits of the company.

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###### Liquidity ratios

These measure firm’s ability to meet its short-term maturing obligations as and when they fall due. The lower the ratio, the higher the liquidity risk and vice versa. Failure to meet short term liabilities due to lack of liquidity may lead to poor credit worthiness, litigation by creditors and insolvency.

###### Activity ratios

These measure the efficiency with which a firm uses its assets to generate sales. They are also called turnover ratios as they indicate the rate at which assets are converted into sales.

###### Leverage or gearing ratios

These measure extent to which a company uses its assets which have been financed by non owner supplied funds. They measure financial risk of the company. The higher the ratio, the higher the financial risk. Gearing refers to the amount of debt finance a company uses relative to its equity finance.

###### Investment or equity ratios

These are used to evaluate the overall performance of a company. E.g. in determining company’s dividend policy, determining theoretical value of company’s securities and predicting effects of rights issue.

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###### Profitability ratios

* **Gross profit margin**. This ratio shows how well cost of production has been controlled in relation to distribution and administration costs.

Gross profit margin = Gross profit X 100%

Sales

* **Net profit margin**. This measures firm’s ability to control its production, operating and

financing costs.

Net profit margin = Net profit X 100%

Sales

* + **Return on capital employed (ROCE).** This measures the effciency with which a company

uses long term funds or permanent assets to generate returns to shareholders.

ROCE = Profit before interest and tax/ operating profit

Total capital employed

Capital employed consists of shareholders funds (ordinary share capital, preference share capital, share premium and retained earnings) and long term debts.

* **Return on investment**. This measures the efficiency with which a company uses its

total funds in capital employed to generate returns to owner’s funds.

Return on investment = Net profit after tax X 100%

Capital employed

* **Return on equity. (ROE)** This measures the efficiency with which a company uses other

supplier’s funds to generate returns to shareholders.

Return on equity = Earnings attributable to equity shareholders X 100%

Equity

###### Equity comprises of ordinary share capital, share premium and reserves.

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**Liquidity ratios**

* **Current ratio**. This is computed by dividing total current assets by total current liabilities:

Current ratio = Current assets

Current liabilities

* **Acid test or quick ratio**. This is calculated by dividing total current liabilities excluding stock by current liabilities

Acid test ratio = Current assets less stock

Current liabilities

* **Cash ratio**. This is calculated by dividing total current liabilities excluding stock and debtors by current liabilities.

Cash ratio = Current assets less (stock+debtors)

Current liabilities

Alternatively Cash ratio = Cash

Current liabilities

**Activity/efficiency ratios**

* + **Debtor’s turnover.** This shows the number of times debtors pay within the year. It indicates how efficient the firm is in management of credit. The higher the ratio, the more efficient management is in managing its credit policy.

Debtor’s/Receivables turnover = Credit sales

Average debtors

* + **Creditor’s/Payables turnover**. This indicates the number of times creditors are paid by a company during a year.

Creditor’s turnover = Credit Purchases

Average creditors

* + **Stock or inventory turnover**. This indicates the efficiency of a firm in selling its products so as to generate sales. It shows the times stock is turned over or converted into sales within a year. It shows how rapidly stock is being turned into cash through sales.

Stock or inventory turnover = Cost of sales

Average stock

**Leverage/ Gearing ratios**

* + **Debt ratio or capital gearing ratio**. This measure the proportion of debt nance to capital employed by a company. A company is highly geared if the ratio is greater than 50%.

Debt ratio = Total long term debt x 100%

Capital employed

* + **Debt equity ratio**. This measures the proportion of non owner supplied funds to owner’s contribution to the company. A company is highly geared if the debt equity ratio is greater than 100%.

Debt equity ratio = Long term debt

Equity or Net worth

* + **Times interest cover**. This shows number of times earnings by a company cover its current payments. The higher the ratio, the lower the gearing position and thus the lower the financial risk.

Times interest cover = Earnings before interest and tax + Depreciation

Interest charged

###### Investment or equity ratios

* + **Earnings Per Share (EPS).** This indicates the amount shareholders expect to generate in form of earnings for every share invested. It shows profitability of a company on a per share basis.

EPS = Earnings attributable to equity shareholders Number of ordinary shares

* + **Dividend Per Share** (DPS) This represents the amount of cash dividend that shareholders expect to receive for every share invested in the company.

Dividend Per Share = Total ordinary dividends

Number of ordinary shares

* + **Earnings yield**. This measures the potential return that shareholders expect to earn for every share invested in a company. It evaluates the shareholders returns in relation to the market value of a share.

Earnings yield = Earnings per share X 100

Market price per share

* **Dividend yield**. This ratio measures how much an investor expects to receive from cash dividends for every share purchased or invested in a company.

Dividend yield = Dividend per share X 100

Market price per share

**LIMITATIONS OF RATIOS**

* **Subjectivity**. Ratios are subjective to accounting information that depends on the accounting policies adopted by a particular organization hence making it impossible for cross sectional analysis if a company uses different accounting policies.

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* **Irrelevance**. Ratios are historical figures which may irrelevant in making future

decisions.

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* **Qualitative aspects are ignored**. Qualitative aspects such competent management,

experience and motivation of employees are not captured in computation of ratios.

* **Ambiguity.** Different people will use different stances to describe financial information

e.g. including preference share capital in equity or return on capital being referred to as gross capital employed.

* **Usefulness**. Ratios are computed at a specific point in time. By the time they are analyzed for decision making, circumstances may have changed thus ratios are only useful in the short term
* **Monopoly**. For a company without competitor, it may not be .possible to analyze its

performance with other companies in the same industry.

**ILLUSTRATION**

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The following are the summarized financial statements of Katume Limited

Statement of financial position as at 31 March:

2015 2014

``Sh. “million” Sh. “million Sh. “million” Sh. “million”

Non-current assets 4,100 4,000

Current assets

Inventories 450 400

Trade receivables 496 534

Cash at bank 40 986 66 1,000

Total assets 5,086 5,000

**Equity and liabilities**

Ordinary share capital (sh. 100 par value) 1,000 1,000

Retained earnings 2,546 2,400

3,546 3,400

**Non-current liabilities**

Loans from bank 1,000 1,200

Current liabilities 540 400

Total equity and liabilities 5,086 5,000

**Income statement for the year ended 31 March:**

**2015 2014**

**Sh. “000” Sh. “000”**

Revenue 3,666 4,000

Cost of sales (1,866) (2,000)

Gross profit 1,800 2,000

Less: expenses

Administration and selling expenses (700) (800)

Profit before interest and tax 1,100 1,200

Interest (120) (134)

Tax (330) (360)

650 706

Dividends (200) (200)

Retain profit 450 506

Required:

For each financial year, calculate the following:

1. Gross profit margin.

1,800/3,666 =49% 2,000/4,000 =50%

1. Return on capital employed.

1,100/4,546 =24% 1,200/4,600=26%

1. Current ratio.

986/ 540 =1.83 1,000/400=2.5

1. Quick Ratio
2. Inventory turnover.

1,866/425 =4.39 2,000 /400 =5

1. Receivables turnover