CHAPTER THREE

FINANCIAL STATEMENTS AND RATIOS

3.1 A GLANCE AT FINANCIAL RATIOS

In Latin, ratio means "reasons", which relates to solely quantitative numbers and financial ratios are among the most popular tools used in financial analysis. But their function is often misunderstood. A ratio is a mathematical relationship between two variables. If ratios are properly interpreted, they can identify areas such as assets, liabilities and revenue, that need further investigation and analysis.

In particular, ratios are useful when we know how to interpret them and make use of them, because ratios take into consideration the relative relation between the size of the denominator and the size of the numerator. This makes comparison meaningful across firms of different sizes. Otherwise, it would be meaningless to make comparison when there is a significant difference in company size. Most importantly, by comparing ratios of a company with the industry average, one can discover the company's strengths and weaknesses as well as its competitive position in the industry.
Ratios can be categorised into four main categories, namely:

(1) Liquidity

Liquidity is a matter of degree and it implies the ability to convert assets into cash. The short term liquidity refers to the degree to which it can meet its short term liabilities and is often referred to a time span of less than one year.

A lack of liquidity means that the company is unable to fully make use of the assets to maximise profit. A serious lack of liquidity implies that the enterprise is unable to pay its current debts and obligations. In the most severe form, it can cause insolvency and bankruptcy.

For an owner, liquidity is related to profit and opportunity to do business. For creditors, liquidity can imply the ability of an enterprise to pay debts and outstanding loan.

(2) Return on Invested Capital/Profitability/Operating Performance

Profitability is the ability of a company in generating earnings or revenue. Analysis of profit is vital for everyone, especially the shareholders, because profit can be derived in the form of dividend, which is paid from profit. In
addition, an increase in profit can cause a rise in share price, which leads to capital gains. Therefore, profit is often used as a performance measure.

(3) Financial Leverage and Solvency

Financial leverage means the use in the capital structure of an enterprise of debt that pays a fixed return. Financial leverage index is calculated as follows:

\[
\text{Financial Leverage Index} = \frac{\text{Return on Common Equity}}{\text{Return on Total Assets}}
\]

The effect of leverage is positive when the return on common equity exceeds the return on total assets.

(4) Asset Utilisation and Efficiency

Asset utilisation and efficiency measures how effective the firm manages its assets. Each company has to borrow money from other sources to obtain and acquire assets. Therefore, this category of ratios is very important, because it determines how well the company is in managing its capital to acquire assets that can maximise the sales and profit.
CHAPTER THREE: FINANCIAL STATEMENTS AND RATIOS

Last but not least, the usefulness of management decision also depends on how accurate the financial data are and how we interpret the data in an appropriate way. Unfortunately, financial data can vary significantly in terms of quality and scope. Financial statements can be broadly classified as follows:

1. The audited statement. The audited statement covers a specific period and is prepared by certified public accountant; it is quite reliable.

2. The interim statement. This type of statement depends on the company requirement. Interim data can be prepared monthly, quarterly or half-yearly. The interim statement is less reliable because these statements are seldom subject to audit. Therefore, some inaccuracies may occur in the figures.

3. The unaudited year-end statement. This unaudited statement can either be signed by the company officer or unsigned. Usually, only a small company will prepare unaudited statement. In our sample of study, none of the financial data are unaudited data.
3.2 **FINANCIAL STATEMENTS**

In the business world, the common language of business is finance. Therefore, the most important ratios are those that are financially sound. Fundamental to this level of understanding are three – and only three – documents from which we obtain the raw data for our analysis. These are:

1. The balance sheet,
2. The profit and loss account,
3. The cash flow statement.

Therefore, it is important that we have a clear understanding of these financial statements. Each of these statements will be discussed in detail and the link between financial statements will also be pointed out later in this chapter.

**BALANCE SHEET (B/S) STATEMENT**

The balance sheet is simply an instant “snapshot” of the company assets and liabilities, which are summarised and presented in a statement called balance sheet. It is a static document relating to one point in time and we take repeated “snapshot” at fixed intervals usually quarters or years to see how the assets and funds move with the time. The main purpose of a balance sheet is to show the financial condition of an accounting entity as of a particular date, which is the financial year end date. The balance sheet consists of assets, which are the
resources of the firm; liabilities, which are the debts of the firm; and stockholders' equity, which is the owners' interest in the firm.

THE PROFIT AND LOSS (P/L) ACCOUNT / INCOME STATEMENT

The profit and loss account measures the gains or losses from normal operations over a period of time between two balance sheets. Therefore, it is a link or bridge between the opening and closing balance sheets of an accounting period. In other words, the profit and loss account measures total income and deducts total cost. Both income and cost are calculated according to strict accounting rules. It is not possible to change a value in the profit and loss account without any adjustment to the balance sheet. In this way, they support one another.

CASH FLOW (C/F) STATEMENT

The statement of cash flow details cash inflows and outflows related to a company's operating, investing, and financing activities over a period of time. The cash flow statement is a very powerful document. It depends on the two balance sheets and the profit and loss account together. It gathers information in both so that, even though this statement is the most recent in time, it is the most important information for explaining the financial activities of the company, especially quarterly reporting.
LINK BETWEEN FINANCIAL STATEMENTS

These three statements are not independent of one another, but are linked in the system at points in time and across time. The three statements of (1) cash flow, (2) profit and loss, and (3) balance sheet explain changes (typically from operating activities) over a period of time in a company’s investing and financing activities. Every transaction that happened in these three statements will impact the balance sheet. The picture below gives a full image of the financial affairs of a business.

Chart 3.1: Link Between Financial Statements

Balance Sheet as at 31 December 2000

Cash Flow Statement for the year ended 31 December 2001

Profit and Loss Account for the year ended 31 December 2001

Balance Sheet as at 31 December 2001
3.3 FINANCIAL RATIOS USED IN THE STUDY

The formula of each ratio used in this study and their functions are discussed briefly as follows:

3.3.1 CURRENT RATIO (CR)

Current ratio (CR) is defined as follows:

\[ CR = \frac{Current\ Assets}{Current\ Liabilities} \]

It is a simple comparison between the current assets and current liabilities. Current assets represent the amount of liquidity, i.e. cash and near-cash assets available to the business, whereas current liabilities give an indication of its upcoming cash requirements. It should be expected that the current assets will be at least equal to, or normally be somewhat greater than, current liabilities.

A frequently heard rule-of-thumb is that if the current ratio is 2:1 or better, then a company is financially sound. The 2:1 norm implies that RM2 of current assets are available for every RM1 of current liabilities or, alternatively viewed, the value of current assets can shrink by as much as 50% and still cover current liabilities.
3.3.2 ACID-TEST RATIO / QUICK RATIO (QR)

Acid-test ratio/Quick ratio (QR) is defined as follows:

\[ QR = \frac{Current\ Assets - Inventories}{Current\ Liabilities} \]

Quick ratio is very similar to that of the “current ratio”. It simply removes the “inventories” value from the “current assets” and divides the result by the “current liabilities” total. Inventories are believed to be the least liquid of current assets and are removed from the acid-test ratio. The reason to remove the inventories from current assets is because:

1. Inventories may be rather slow moving or possibly obsolete,
2. Parts of the inventories may have been pledged to specific creditors,

The usual guideline for the acid-test ratio is 1.00. A reduced liquidity position will lead to more bankruptcies. In general, it means more risk for creditors and investors.
3.3.3 RETURN ON ASSETS (ROA)

Return on assets (ROA) is defined as follows:

\[
ROA = \frac{\text{Profit Before Interest and Tax (PBIT)}}{\text{Total Assets}} \times 100
\]

ROA measures the usage efficiency on the total assets or gives a measure of the operating efficiency of the total business. In other words, it measures the firm’s ability to utilise the assets to create profit.

3.3.4 RETURN ON EQUITY (ROE)

Return on equity (ROE) is defined as follows:

\[
ROE = \frac{\text{Net Profit}}{\text{Shareholders' Fund}} \times 100
\]

ROE measures the actual return made to the equity shareholders. Higher return on equity as compared to its return on assets reflects the favorable effects of financial leverage. A good figure brings success to the business because it results in high share price and makes it easy to attract new funds. All these will lead to greater profit.
3.3.5 DEBT TO EQUITY (DTE)

Debt to equity (DTE) is defined as follows:

\[ DTE = \frac{Total \ Liabilities}{Shareholders' \ Fund} \times 100 \]

This ratio measures the financial strength of a company. It is one of the most important measures in corporate finance. The purpose of this ratio is to measure the mix of funds in the balance sheet and to draw a comparison between those funds that have been supplied by the owner (equity) and those that have been borrowed (debt).

3.3.6 FINANCIAL LEVERAGE (FL)

Financial leverage (FL) is defined as follows:

\[ FL = \frac{Total \ Assets}{Shareholders' \ Fund} \]

Another formula to derive FL is as follows:

\[ FL \ Index = \frac{Return \ on \ Common \ Equity}{Return \ on \ Total \ Assets} \]
CHAPTER THREE: FINANCIAL STATEMENTS AND RATIOS

Financial leverage means the use in the capital structure of an enterprise of debt that pays a fixed return. In other words, financial leverage is the use of debt to increase earnings. The effect of leverage on operating results is positive when the return on the equity capital exceeds the return on total assets. All in all, it means a financial leverage index greater than 1.0 indicates favorable effects from leverage, a value less than 1.0 suggests unfavorable effects from leverage, and a value of exactly 1.0 suggests neither favorable nor unfavorable effects.

3.3.7 WORKING CAPITAL TO SALES (WCTS)

Working capital to sales (WCTS) is defined as follows:

\[ WCTS = \frac{Working\ Capital}{Turnover} \]

This ratio uses values from the balance sheet and the profit and loss account and relates the surplus of short-term assets over short-term liabilities to the annual operating gross cash flow.
3.3.8 FIXED ASSETS TO SALES (FATS)

Fixed assets to sales (FATS) is defined as follows:

\[
FATS = \frac{Fixed \ Assets}{Turnover}
\]

This ratio measures the firm’s ability to make productive use of its properties, plants and equipments for the generation of revenue. This ratio may not be meaningful if the fixed assets are old or if the industry is labor-intensive; in these cases, the ratio will be substantially lower because of the low, fixed assets base.

3.3.9 FIXED ASSETS TURNOVER (FAT)

Fixed assets turnover (FAT) is defined as follows:

\[
FAT = \frac{Turnover}{Fixed \ Assets}
\]

This ratio is similar to Fixed Assets to Sales ratio but in the reverse order.
3.3.10 DAYS SALES IN RECEIVABLES (DSIR)

Days sales in receivables (DSIR) is defined as follows:

\[
DSIR = \frac{Accounts \, Receivable}{Turnover} \times 365
\]

DSIR, also known as collection period for accounts receivable, gives an indication of the length of time receivables have been outstanding at the end of the year. And the length of time the receivables have been outstanding gives an indication of the collectibility of the receivables. But this indicator can be misleading if the sales are seasonal.

In fact, we should include only credit sales when computing this ratio because cash sales do not create receivables. Since most of the financial statements rarely disclose both cash and credit sales, we often compute this ratio by using total net sales (i.e. assuming cash sales are insignificant).
3.3.11 WORKING CAPITAL TURNOVER (WCT)

Working capital turnover (WCT) is defined as follows:

\[
WCT = \frac{Turnover}{Working \ Capital}
\]

A low working capital turnover indicates an unprofitable use of working capital which means sales are not adequate in relation to the available working capital. In contrast, a high ratio is an indication that the firm is undercapitalized (overtrading), meaning the firm is particularly susceptible to liquidity problems when there is a major adverse change in business conditions.

3.3.12 CASH RATIO (CASHR)

Cash ratio (CASHR) is defined as follows:

\[
CASHR = \frac{Cash, \ Cash \ Equivalents \ & \ Marketable \ Securities}{Current \ Assets} \times 100
\]

The CASHR indicates the immediate liquidity of the firm. The larger this ratio, the more liquid its current assets. A high cash ratio indicates that the firm is not using its resource cash to best advantage, whereas a cash ratio that is too low could indicate an immediate problem with paying bills.
3.3.13 ACCOUNTS RECEIVABLE TURNOVER (RT)

Accounts receivable turnover (RT) is defined as follows:

\[
RT = \frac{Turnover}{Accounts~Receivable}
\]

The accounts receivable turnover figure indicates the number of times the receivables are resolved, that is, are generated and collected during the year.

3.3.14 DEBT TO ASSETS / DEBT RATIO (DR)

Debt to assets/debt ratio (DR) is defined as follows:

\[
DR = \frac{Total~Liabilities}{Total~Assets} \times 100
\]

DR is one of the measures to determine the firm’s long-term debt-paying ability. It is a comparison of a company’s total liabilities with its total assets. The debt ratio indicates the percentage of assets financed by creditors, and it helps to determine how well creditors are protected in case of insolvency of the company.
3.3.15 CURRENT DEBT TO EQUITY (CDTE)

Current debt to equity (CDTE) is defined as follows:

\[
CDTE = \frac{Current\ Liabilities}{Shareholders'\ Fund} \times 100
\]

This ratio is similar to DTE, but CDTE concentrates on a short-term basis and measures the short-term company’s financial strength. It is normally used to make decision on short-term debt-paying ability.

3.3.16 CASH TURNOVER (CT)

Cash turnover (CT) is defined as follows:

\[
CT = \frac{Turnover}{Cash,\ Cash\ Equivalents\ &\ Marketable\ Securities}
\]

CT measures the speed with which the “near-cash” moves throughout the company over a period of, normally, one year. This ratio also measures the effectiveness in managing “near-cash” to generate income.
3.3.17 INVENTORY TURNOVER (IT)

Inventory turnover (IT) is defined as follows:

\[ IT = \frac{Turnover}{Inventories} \]

Inventory turnover ratio measures the average speed with which inventories move through and out of the enterprise. For example, a company with inventory turnover of 5.0 times means that the company’s inventories are sold out and restocked 5.0 times per year.

3.3.18 CREDITORS TURNOVER DAYS (CTD)

Creditors turnover days (CTD) is defined as follows:

\[ CTD = \frac{Creditors}{Turnover} \times 365 \]

The creditors turnover days gives an indication of the length of time that accounts payable have been outstanding at the end of the year.
3.3.19 EARNING PER SHARE (EPS)

Earnings per share (EPS) is defined as follows:

\[
EPS = \frac{Net Profit}{Issued Shares}
\]

Earnings per share is the amount of income earned on a share of common stock during an accounting period. It is a concept that applies only to corporate income statement because EPS is the financial element of information that receives the greatest attention from the financial community, investors, and potential investors.

3.3.20 REVENUE PER SHARE (RPS)

Revenue per share (RPS) is defined as follows:

\[
RPS = \frac{Turnover}{Issued Shares}
\]

RPS is the amount of revenue earned on a share of common stock during an accounting period.