

## **CHAPTER II**

### **LITERATURE REVIEW**

#### **2.1 Capital Structure**

The capital structure is sources of funds which need to be financed by a firm for overall operations and growth. Bond issue or long-term notes payable come as debt, while common stock, preferred stock or retained earnings are classified as equity. Another part of capital structure is working capital as short-term debt.

Capital structure can be a composite of firm's short-term debt, long-term debt, common and preferred equity. When analyzing capital structure, the proportion of short and long-term debt needs to be considered. Analysts are most likely referring capital structure to a firm's debt-to-equity (D/E) ratio which provides the foresight of how risky a company is. A company that is heavily financed by debt usually has more aggressive capital structure and therefore poses greater risk to investors.

Modigliani and Miller, two professors in the 1950s, studies capital-structure theory intensely. They developed the capital-structure is irrelevance proposition based on their analysis. They hypothesized that it does not matter what capital structure a company used for financing its operations when the markets are perfect. In their theory, market value of a firm is determined by company's earning power and the risk of its underlying asset. And it is

independent between company's value and the way it chooses to finance its investments or distribute dividends.

The basic M&M proposition is based on the following key assumptions:

- No taxes
- No transaction costs
- No bankruptcy
- Equivalence in borrowing costs for both companies and investors
- Symmetry of market information, meaning companies and investors have the same information
- No effect of debt on a company's earnings before interest and taxes

Stephen Ross develops a model where capital structure serves as a signal of private information of corporate insiders (Harris and Raviv, 1991: 311). He attacks the MM-assumption that the market knows the (random) return stream of the firm and values this stream to determine the value of the firm. However, Ross points out, what really valued is the perceived stream of returns. Thus, changes in the financial structure can alter the market's perception of that stream, even though it is in fact unchanged. This is the basis of the relationship between signaling and capital structure (Ross, 1977: 25). In Ross' model the capital market interprets debt issues of managers with insider information as a valid signal of higher quality leading to an increase in the value of the firm (Ross, 1977: 37). Since lower quality firms have higher

marginal expected bankruptcy cost for any debt level, managers of such firms have no incentive to imitate higher quality firms by being more levered (Williamson, 1988: 577; Harris and Raviv, 1991: 311).

In accordance with the Signaling model by Ross (1977) an increase in gearing presents, in term of the company's prospective cash flows, a positive signal to external investors. Because, due to the higher risk of financial distress, companies with less optimistic market prospective tend to avoid additional financial obligations. This implies that an increasing indebtedness means a higher quality of business and therefore better valuation. This lead, in turn, to the assumption that the corporate management can influence a firm's value by changing its capital structure.

Capital structure is a relationship of a firm's liabilities and equity. Capital structure and composition is a crucial aspect of business, and plays a vital role in firms' survival, performance, and growth (Voulgaris, Asteriou, & Agiomirgianakis, 2004). Firms choose different levels of financial leverage in their attempt to achieve an optimal capital structure, and capital structure policy involves a tradeoff between risk and return. An increase in debt intensifies the risk of a firm's earnings, which leads to a higher rate of return to investors. High risk tends to lower the stock's price, while a high rate of return increases it, so the firm's capital structure policy determines its returns.

Pandey (2004) argued that capital structure decision should be analyzed to examine its effect on the value of the firm. De Wet (2006) studied the

relationship between firm value and optimal gearing level. Fama and French (2002) found a positive relationship between leverage and profitability. Gill, Biger and Mathur (2011) also found a positive relationship between leverage and profitable. Ramachandran and Candasamy (2011) proved that a strong one-to-one relationship exists between capital structure and profitability variables, where capital structure has a significant influence on the profitability of the firm. Goyal (2013) revealed a positive relationship of debt with profitability.

Jermias (2008) argues that previous works have analyzed only the direct effect of financial leverage on performance; however, the leverage-performance relationship may also be linked to the intensity of competition and business strategy. Meanwhile, only few studies empirically examine the relationship between leverage and firm performance in emerging economies. For example, Krishnan and Moyer (1997) provide evidence from emerging using a sample of 81 companies from Korea, Malaysia, Singapore and Hong Kong. They find a negative and significant relationship between financial leverage and firms' performance ROE.

## **2.2 Financial Ratios**

Fundamental analysis is being used by the investors as an analytical method to value companies based on a study of corporate profitability and financial measures. Looking at the general, qualitative factors of company, is a way to do this analysis. The example is what industry or sector the company is

in, who are their competitors, and does they have a recognizable brand name. Another approach considers tangible and measurable quantitative factors to fundamental analysis. It means, crunching the numbers and closely analyzing financial statements such as the balance sheet and income statement. Quantitative analysis can produce excellent result and give patient investors an edge over time when it is used in conjunction with other methods.

In spite of this, fundamental analysis is supported by setting the value of the company, estimating revenue, costs and profit, evaluating dividends, the possibility of development etc., i.e. the internal value of a company is held as the main concept of the analysis. Referring to that information, an investor can set the value which can be compared to the current stock price. Cibulskiene & Grigaliuniene state (2006) that the opposition of the fundamental analysis criticizes this effective market hypothesis. They think that an investor needs to evaluate not only qualitative but also quantitative factors which can influence stock value and market price.

Fundamental analysis maintains that firms' values are indicated by information in financial statements. However, the methods by which these values are extracted from financial statements are unclear. Traditional financial statement analysis provides little guidance for this task. Textbooks describe the calculation of financial statement ratios but provide scant prescription as to how these should be used. Ratios are identified with such constructs as 'profitability', 'turnover', and 'liquidity', but the relationship of these operating characteristics to value is not apparent.

The primary aim of financial reporting is to provide information about the financial position and performance of companies provided by numbers disclosed in financial statements which was considered to be a guide for their decisions. The users of accounting information in order to evaluate and forecast the profitability, equity growth, cash flow and dividends of corporates' economic and subsequent decisions, they rely more than any other information on data arising out of financial statements or its components. Numbers in financial reporting could affect investor confidence in financial markets. Investors are looking for opportunities to invest additional resources in the most efficient capital markets and one of the main factors that every investor has in making his/her decision is to give special attention to "stock price".

Ratio analysis is one way to make sense of these corporate data. Looking at ratios is more involved than simply comparing different figures from the balance sheet, income statement and cash flow statement. It requires relating these calculated ratios against previous years, other companies, the industry the company is in, and even the economy at large. Ratios can give you a glimpse into the relationships among and between individual values that relate to a company's operations and link them to how a company has performed in the past, and how it might perform in the future. The result is a potentially robust method of valuing the shares of a company.

Kendall (1953) observes that stock prices seem to change randomly over time, and he tested whether a previous price could be used to predict a future price change.

Later, studies expanded to include other predictive variables such as dividend yield, price to earnings ratio, book-to market ratio, return on equity, and various measures of interest rates that commonly tested to predict stock prices and returns. However, the evidence is mixed.

Ball and Brown (1968) originally researched the correlation between accounting information and stock price. After they empirically studied the correlation between annual report earnings data and stock price, they found that if a company had excess earnings and then investors could get an abnormal return. This shows the relationship between accounting earnings and stock price.

Beaver asserted from another perspective that a company's financial reporting and accounting information could influence stock price. Beaver found that investors used the declared accounting information when they traded in stocks.

Bernard and Stober, Dechow (1994) and Sloan (1996) respectively empirically studied the influence of earnings information and operation cash flow information on stock price. They found that the earnings information is better correlative, but not absolute.

As an empirical alternative to factor analysis, researchers have surveyed security analysts about their opinion of the usefulness of financial ratios. Matsumoto, Shivaswamy, & Hoban (1995) surveyed security analysts, asking them to assume that they were analyzing a NYSE-listed firm. Analysts were asked to rate, in 1-5 Likert-type scale, the usefulness of 63 financial ratios organized into 13 groups. The authors reported that the most important ratios were growth rates such as earnings per share (EPS) growth and sales growth, followed by valuation ratios (Price to Earnings and Market to Book), profitability ratios, and leverage ratios. Inventory turnover, receivables turnover, cash flow ratios and dividend ratios were moderately important with capital turnover and cash position ratios the least important. Gibson (1987) conducted a survey among Certified Financial Analysts charter-holders and found that analysts assigned the highest significance ratings to profitability ratios followed by the Price to Earnings ratio. Debt ratios, liquidity ratios and the rest of “other ratios” are lower in importance.

Our results on the most preferred financial ratios are, in general, consistent with Matsumoto et al. (1995) and Gibson (1987) as we find that valuation profitability, and leverage ratios are the most used categories by research analysts following equities listed on the Mexican stock exchange. However, our findings differ about the relative importance of types of ratios. Furthermore, unlike previous research, we document that cash flow related ratios such as free cash flow yield and dividend yield, are of relatively high importance to financial analysts.



### 2.3 Capital Structure to Company's Performance

Explaining the role of debt in a firm's performance is one of the primary objectives of contemporary research. Modigliani and Miller (1958) argue that a firm's value is unaffected by its capital structure in a market free of imperfections. They argue that future cash flows are the determinants of a firm's value. However, according to Modigliani and Miller (1963), the use of debt in a company capital structure can increase the firm's value, since interest expenses are tax deductible.

Ronal W. Masulis (1980) analyzing a sample of relatively pure capital structure change announcements, and evidence is found of statistically significant effects on the portfolio returns of the firm's common stock, preferred stock, and debt. This evidence indicates both a corporate debt tax shield effect and a wealth redistribution effect is found. A new methodology is utilized to test the effects of new information on security prices and differs significantly from previous studies. The comparison period returns method is a straightforward testing procedure for assessing the significance of capital structure change announcements which is independent of the particular asset pricing model specified.

Hamid Ahmad, Bashir A. Fida and Muhammad Zakaria (2013) used a structural model to find the co-determinants of capital structure and stock returns, employing a panel dataset for 100 nonfinancial firms listed on the KSE for the period 2006-2010. The GMM was used to estimate the model and overcome the potential endogeneity problem. The result show that stock

returns and leverage affect one another but that the effect of leverage on stock returns is greater than the effect of stock returns on leverage. The results also indicate that profitability, growth, and liquidity are significant determinants of both leverage and stock returns. Profitability affects leverage negatively and affects stock returns positively. Growth has a positive effect and liquidity has a negative effect on leverage and stock returns. Firm size, however, does not have any significant effect on either capital structure or stock returns.

Fahd Al-Duais (2016) investigated the impact of capital structure on the financial performance of companies according to a sample of 711 of Chinese listed companies in 2014. Results indicated that there was a positive relationship between financial leverage and corporate performance, and financial leverage had a positive impact on corporate performance confirming that the companies can manage and finance varies operations in the long-term and short-term periods using a mixture of both long-term and short-term debts. Furthermore, there might be different results if the firms use short-term or long-term debt. That was clear from the results which indicated that the short-term debt had a negative impact on corporate performance; whereas the long-term debt had insignificant relation and cannot affect ROE.

Lin He (2017) through financial data of Chinese real estate industry listed companies from 2011 to 2015 uses regression methods to study the relationship between capital structure and corporate performance, draw the following conclusion. There is a significant positive correlation between capital structure and corporate performance. It means capital structure in this

case has positive influence on corporate governance. But the correlation of capital structure and corporate performance is positive correlation with low coefficient. And corporate performance has decreased year by year. These indicate that improving the capital structure to increase comprehensive performance is close to the bottleneck. These quests for a new method to improve the performance of the companies. In summary, moderately increasing debt is an effective way for real estate industry to improve enterprise performance.

#### **2.4 Financial Ratios to Company's Stock Price**

It is known that financial ratios are the oldest and simplest practical tools in evaluating and planning companies' performance. They appeared in the mid nineteenth century, and it was always used by accountants and financial analysts. Financial ratios were used and external users for making their economic decisions; including investing, and performance evaluation decisions. Many financial and accounting models have been developed over the past few decades. However, the financial ratios still kept their classical and fundamental power as models or as another important supportive analysis for financial and planning analysis.

The use of accounting data and financial ratios to explain changes in stock prices is frequently referred to in the literature, using a financial ratios analysis can be largely attributed to changes in stock prices has often been discussed by academics and financial analysts.

Audrius Džikevičius, Svetlana Saranda (2011) had done a research, conducted in order to determine whether a link between a stock price return and 20 selected financial ratios exists in the Baltic equity list. The empirical results of this research prove that in the Lithuanian stock market fundamental analysis can be used but it should be modified with the reference to the features that are typical to the analyzed stock market.

Professor Bogdan Dima PhD, Stefana Maria Dima PhD, Otilia Saramat, Carmen Angyal (2013) has an objective to provide some empirical evidences for supporting the hypothesis that financial ratios matter in the selection of portfolios' structure for 495 trading quotes from major European capital markets. After testing this hypothesis in a GMM-system methodological framework, they found that such relationship holds on long run, even if there appears to be some differences in the reactions of the European and United States stocks to financial information.

Thomas Arkan (2016) conduct a research and found the results of the financial ratio analysis with statistical methods shows that the profitability ratios group and valuation ratios group have a significant effect on stock prices. In the industry sector for Kuwaiti companies in the financial market, the power ability of financial ratios to predict the stock price trend was tested using a statistical analysis with a multiple linear regression for the years between (2005-2014), 12 financial ratios were tested, the results showed that there were (2) variables (market to book value and book value ratio) have a

statistically significant stock price and thus can identify the model to predict the price of the share of the industrial sector.

