CHAPTER 2
THEORETICAL FRAMEWORK

This chapter starts its journey with a purpose to give a better understanding of the various theories of capital structure. It also gives an idea of various variables used in our research work.

2.1 THEORIES OF CAPITAL STRUCTURE

A mixture of debt and equity capital or financing is the structure of a company. Important decisions related to debt include the types of creditor’s, forms of credit and maturity matrix, while the allocation to vote and cash flows are related to equity issues. Capital structure, a complex set of interrelated decisions, is a risk sharing instrument where profitability, size, liquidity etc play their role in growth a company.

This section of the dissertation ‘the theoretical problems’ relates to the capital structure in multinational companies with particular reference to consumer goods industry is presented. This section starts with the presentation of Modigliani and Miller (1958) theoretical model of the capital structure of firms followed by the Trade off Theory, Pecking Order Theory (POT), Signaling Theory and Agency Theory. In addition, we briefly introduce the various determinants of the capital structure. The ultimate purpose of this section is to find out the variables to be considered in terms of the capital structure of the multinational companies operating in the FMCG sector of India. The chapter is used to guide our study into the following parts of this dissertation.
2.1.1 Modigliani and Miller’s Theory

As stated above, in 1958, M & M released their influential paper on the concept of the irrelevance of capital structure. It provides that funding of capital structure is unrelated to the value of the company. Certain condition under which capital structure is immaterial to the value of the company is outlined by Modigliani and Miller (1958). These restrictive conditions excluding tax, a perfect capital market without bankruptcy costs and the value of the full information. The worth of the company is the net present value of the stream of cash flows caused by their investments. Once you have taken investment decisions, financing decisions may not affect firm value (Stiglitz, 1972; Fama, 1978). Project cash flows and risk-adjusted cost of capital are independent of how funds are raised for the project. Another way to see this is to quote Professor Modigliani and Miller (1963): "The value proposition of irrelevance claims it cannot get rich by taking money out of one pocket and putting it in another."¹

The following assumptions were made by MM to prove their “value irrelevance” proposition.

I. Firms are in a homogenous risk class with the same degree of business risk.

II. Investors have homogenous expectations about earnings and risks.

III. There exists a perfect capital market.

IV. There is a risk free interest rate on debts.

V. There is a perpetual cash flow.

VI. All the investors can access the information easily because the information is available in the market free of cost.

VII. Securities which are issued and traded in the market are divisible infinitely.

VIII. Transaction costs such as flotation costs, under pricing major issues, a brokerage and transfer tax does not exist.

IX. There are no corporate taxes.

In 1958 Modigliani and Miller declared the arbitration process to maintain their position that the worth of the levered firm and the worth of the unlevered firm should be equal. In other words, it can be said that the worth of neither of the levered firm and unlevered firm is more than each other. The essential part of this argument is that the investors can imitate any combination of the capital structure by replacing the company leverage with home-made leverage. Home-made leverage refers to individual loans prepared by investors in the equivalent ratio as the company with leverage. Therefore, leverage of company is not something that is distinctive that investors cannot carry out it alone. Therefore, the leverage in the capital structure has no importance in a perfect capital market. It implies that, firms that are indistinguishable in all respects, apart from their capital structure, must have the equal value. In the event that they have a different valuation, the arbitration process will initiate. This will maintain to occur until the two companies command the same valuations. At this position, the market reaches equilibrium or stability.

2.1.1.1. Taxes and the Capital Structure

The introduction of the tax element brings the complexity theory of capital structure. The assumption that there is no tax is relaxed to evaluate the validity of the hypothesis. Interests payable on debt are tax deductible substances, while retained earnings and dividends payable to equity do not enjoy the fiscal benefits.
Therefore, every time the company avails the tax shield when more and more debts become the part of its capital structure (Modigliani and Miller, 1963). Thus, the sum available for sharing to the shareholders is more in the case of a company with leverage than in a company with no leverage.

However, utilization of tax shields by the company is uncertain. A company's taxable income may fall or the company may experience losses in the future. In such a circumstance, companies do not have advantage of the tax shield available. Corporate tax rates can be reduced in the future, which will reach in a lower tax shield. This office can be liquidated, and the tax shield will not have any realizable value unlike any other asset. Alternatives such as leasing tax shelters, depreciation, investment allowances, etc., may be presented to the company, and will generate excessive tax shield (De Angelo and Masulis, 1980). Thus, the uncertainty associated with it can lead to decline in value of tax shields. The greater the uncertainty, the lower will be the value of tax shields. The presence of personal taxes can reduce the value of tax shields. This is because regular income in general is taxed at higher rate than the capital gains. In extreme cases the company retains all the profits, shareholders had no tax liability. Further, taxes are charged on capital gains only if the security is sold.

2.1.1.2. Merton Miller Hypothesis

Merton Miller (1977) held that the capital structure decision have no importance if the corporate taxes are present. Changes in capital structure had no impact on corporate valuation. This stands significantly different to the article “Corporate
Income Taxes and the Cost of Capital: A Correction”\textsuperscript{1} jointly written by Modigliani and Miller (1963) in which they agreed debts have the advantage of substantial tax benefits. According to him, the influence of corporate taxes and personal taxes tend to get cancelled and the hypothesis of MM continues to apply even in the presence of taxes. Miller (1977) indicates that different income tax rates are applied on different investors. The tax-exempt investors prefer to invest in debt, while investors in tax brackets higher preferred equity investments. Miller (1977) argues that when the market is in a state of imbalance, the company will change their capital structure to confirm with the incidence of tax on investors. As companies increases the debt proportion as part of their capital structure, debt supply in the market increases. This will deplete the capacity of 'clients' tax-free (investors) to absorb the debt. These companies would then sell their debentures to investors who come in the subsequent tax bracket. This practice is continued to the stage where the company covers the investor classification in the same tax bracket income tax rates. Markets are required to be equilibrium when the personal tax rate investors are the same as the corporate income tax rate, at which point it is no longer potential for companies to improve the evaluation by changing the capital structure.

\subsection{2.1.2 Pecking Order Theory}

According to this theory, the company follows a certain sort of choice in financing decisions (Myers, 1984; Myers and Majluf, 1984). According to pecking order theory, retained earnings are considered to be the best mode of funding the investments. The advantage of financing through retained earnings is that it has no related flotation costs. Additionally, retained earnings do not require

external supervision by the provider of capital. When the internal accruals are not adequate to finance the planned investment, then the company’s next choice is to fund the investments by issue of debt in the open market. Funding through debt does not result in dilution of equity capital and has no implications on the ownership of stock. The next way of financing in the hierarchy is the issuance of preference capital. This was followed by a variety of hybrid instruments like convertible instruments. The least preferred mode of financing is issue of equity (Donaldson, 1961; Myers, 1984; Myers and Majluf, 1984). This is only reliable as a last option. Pecking order theory is a behavioral approach to capital structure. This is based on the principle that financing decisions are made in a way that causes the least difficulty to the management.

2.1.3 Trade-off Theory

Trade off theory tries to balance between funding through debt and equity. The most important advantage of financing the capital structure through debt is that it gives the umbrella to the tax which in turn helps to the shareholders in a way that more part of the profit is distributed to them. But on the other hand (Warner, 1977: Andrade and Kaplan, 1998 and Haugen and Senbet, 1977) had also discussed about the drawbacks of financing capital structure through debt as it increases the chances of insolvency. If the proportion of debt capital is increased then there will be larger accessibility of the tax umbrella but surely the cost of financing will also increase. The organization will try to manage between the tax umbrella and the cost of financing the debt. When the company starts a new venture or is at the high growth level then there are the chances of higher cost of financing the debt. In such a situation the company is open to the elements of insecurity of cash inflows and low physical assets base. Thus, the companies with such a background should not show the high assurance on the large proportion of
debt as the part of the capital structure. But, on the other hand the companies having the steady revenue and sound asset base features the low risk of insolvency and such companies can have the larger proportion of debt in their capital structure.

Generally the benefit of increasing the proportion of debt in the capital structure is of tax shield with the help of which the share of equity share holders in the profit increases. On the other hand risk of insolvency is the greatest drawback (Warner, 1977; Haugen and Senbet, 1978, Andrade and Kaplan, 1998). Beside the tax shield, the cost of financing the capital structure also increases if proportion of debt is increased. Thus, the firm tries to balance between the tax shield and the cost of financing. Generally, the cost of financing is more when there is a new startup or when the business is growing. During these times the risk of uncertainty of cash inflows is more. Thus, at the time of startups and growth of the firm, firm should not be encouraged to issue the debt but on the other hand the sound firms having stable cash inflows and healthy asset base should try to issue more debt to the investors.

2.1.4 Asymmetric Information Theory

This theory is based on the principle that the manager/person is having personal information about the characteristics of the flow back in a company or an investment opportunity. Thus capital structure is intended to reduce inefficiencies caused by asymmetric information. Stewart Myers and Nicholas Majluf (1984) in a pioneering article, “Corporate Financing and Investment Decisions When Firms have Information that Investors do not have”1 argues that, if the investor is less

well-informed than people in the company on company valuation, equity may be mispriced by the market.

“If the company is funding new projects by issuing equity, under pricing may be so strict that new investors capture more than the net present value (NPV) of the new project, which results in a net loss to existing shareholders. In this case, the project was rejected even though the NPV is positive”\(^1\) said by Myers, (1977). Underinvestment problems can be avoided if the company can finance investment by issuing securities that would have less or nil undervaluation. For instance, internal accruals do not have an element of undervaluation and in terms of the debt will be less severe undervaluation. Consequently, the firm uses equity financing only as a last choice.

2.1.5. Signalling Theory

Some theories suggest that changes in capital structure have information content about the valuation of the firm. These theories give explanations that capital structure changes are explicit signals about the firm’s valuation, sent purposely by the management (Ross, 1977). An increase in the debt composition of the capital structure is commonly indicated as a signal of undervaluation of the firm. As the increased level of leverage is accompanied by a higher risk of bankruptcy, the increased level of debt implies the confidence of the management in the future prospects of the firm. Hence, it brings greater conviction than a simple announcement of under valuation of the firm by the management (Leland and Pyle, 1977; Myers and Majluf, 1984). On the other hand, an issue of equity is an

indication that the firm is overvalued. The market interprets that the management has decided to issue equity because it is valued higher than its intrinsic valued by the market. The markets normally respond favorably to moderate increases in leverage and negatively to new issue of equity (Ross, 1977).

2.1.6 Agency Costs Theory

“A significant amount of research during the last two decades has been devoted to models in which capital structure is decided by agency costs, costs due to conflict of interest”¹ said by Harris and Raviv, (1991). “Firstly, conflicts of interest between shareholders and managers begin because managers are not allowed to 100% of the residual claims. Consequently the managers do not capture the entire gain from the profit enhancement activities, but they do accept the entire costs of these activities. The managers may hence put in less efforts in value enhancement activities and may also undertake to maximize their private gains by lavish perquisites, plush offices, empire building through sub-optimal investments, etc”² said by Jensen and Meckling, (1986). While the managers would have the entire costs of refraining from such inefficiencies, they are entitled to only a portion of the gains. The increase in the manager’s stake in the firm decreases these inefficiencies. Secondly, conflicts also come up between the interests of debt holders and equity holders (Jensen and Meckling, 1976). If an investment financed with debt yields high returns (higher than the cost of debt), equity


holders are allowed to the gains. On the other hand, if the investment fails, the debt holders experience the losses due to limited liability of the equity holders. As a consequence, equity holders may gain from putting the money in very risky projects even if the value is decreased. Value of debt is declined by investments in such projects. The loss in the value of equity from regrettable investments can be more than compensated by the gains in equity value at the cost of the lenders. The lenders to the firm protect themselves against expropriation by impressive certain conditions on the firm. These circumstances are called as protective covenants and stay in strong point till the debt is repaid. These conditions may relate to limitations on further borrowings by the firm, cap on payment of dividends, managerial payment, sale of assets, limitations on new investment, etc. These conditions may guide to sub-optimal operations resulting in inefficiencies. Additionally, the lenders put in place tough monitoring and corrective mechanisms to implement the debt covenants. The monitoring and enforcement costs are approved on to the firms in the kind of higher cost of debt.

These expenses together with the cost of inefficiencies (due to the covenants) are called agency costs (Jensen and Meckling, 1976). As residual owners, the shareholders have an incentive to make sure that agency costs are minimized. The existence of agency costs work as a disincentive to the issuance of debt. The agency cost may be practically non-existent at low levels of leverage. Nevertheless, after the entry point, the lenders initiate perceiving the firm to be increasingly risky. This may result in an unequal increase in the agency costs due to necessitate for widespread monitoring.
2.2. THE CONCLUSIONS WHAT VARIABLES WE USE FOR OUR RESEARCH, AND WHY THESE, THEORIES PREDICTIONS OF THE RELATIONSHIP BETWEEN VARIABLES, AND SOME PREVIOUS RESEARCH FINDINGS

The following sub-sections imply the conclusions what variables we use for our research and the reasons, theories predictions of the relationship between variables, and some previous research findings.

2.2.1 Selected Variables regarding Capital Structure for Research Question 1

After reviewing the pecking order theory and trade-off theory, we test the theories by using selected variables. As our research question that stated in chapter 1, what are the determinants of capital structure of the multinational firms in the fast moving consumer goods sector in India? Hence, our minor research questions are as follows: as implied by the trade-off theory and the pecking order theory, do profitable firms or firms with more liquid assets or firms larger in size or firms with more tax liability have positive or negative relationship with debt ratio?; As the pecking order hypothesis, does firm’s profitability has a negative relationship with level of debt? And as implied by the trade-off theory, does firm’s profitability has a positive relationship with debt ratio? In accordance with the pecking order theory and trade-off theory, is there a negative relationship between liquidity and debt ratio?; As suggested by the trade-off theory, does size has a positive relationship with debt ratio? And as suggested by the pecking order theory of the capital structure, is there a negative relationship between level of debt and tax liability of the firm?
Therefore, the relevant variables we used are: long term debt ratio, total debt ratio and short term debt ratio as the dependent variable, and the liquidity, profitability, tax liability and size as the independent variables. The selection of independent variables is also conducted by previous empirical studies such as Pandey (2001), Sogorb-Mira and López-Gracia (2003), and Huang and Song (2002). The test of determinants of capital structure of the multinational firms in the FMCG sector in India is important as these firms have different characteristics. We test it based on pecking order theory and trade-off theory. Three debt ratios taken for this study are total leverage, short-term leverage and long-term leverage. Capital employed is examined by way of these debt ratios and thus, best signify the effects of past financing decisions.

We choose liquidity of assets, as the liquidity of assets represents the effect of the available cash in hand for the operation of the business and investment purposes. There are various conceptions for the effects of liquidity on leverage Decisions. The Company is limited to use funds raised by debts for definite projects, if debs are guaranteed against assets. Creditors have better guarantee of refund, but without liquid assets, such a guarantee does not exist.

Firm size provides a measure of the agency costs of equity and the demand for risk sharing. Firm size is likely to capture other firm characteristics as well (e.g., their reputation in debt markets or the extent their assets are diversified). For tax liability, it has been suggested by the trade-off theory that there is more debts with the firms which are having more tax liabilities because they have stronger incentives to avoid tax as the more leverage means more proportion of debt in the capital structure which means more payment of interest which in turn provides the tax shield to the firm.
Finally, profitability plays an important role in leverage decisions. Profitability and return on assets are substitute of each other. ROA represents the contribution of the firm’s assets on profitability creation. Earning ability of the firm is measured by profitability. The basic concern for the shareholders is represented by the earning ability of a firm.

The following is the theories prediction of the relationship between variables and some previous research findings.

**Profitability**

Myers and Majluf (1984) theory is based on the pecking order theory. He says “firms have a pecking-order in the choice of financing their activities”\(^1\). Approximately, this theory states that internal funds are preferred than external funds by the firms. If funds are to be raised externally, then debts are given first preference, and then come hybrid securities such as convertible bonds, and issue of equity as the last preference (Brealey and Myers, 1991). Such an action might be due to the costs incurred while issuing new equity, as a result of asymmetric information or transaction costs. In spite of equality in all things, the firms having more profits will have more internal funds, and therefore a inverse relationship is expected between profitability and leverage. Such a relationship is a regular finding in the observed literature (Harris and Raviv, 1991; Rajan and Zingales, 1995; Booth et al., 2001). Although the contradictory theoretical forecast on the effects of profitability on leverage was found by Rajan and Zingales, (1995);

---

while Myers and Majluf (1984) an inverse relationship as per pecking order theory, Jensen (1986) predicted a positive relationship. If the pecking order theory is followed by the firms having enough profit, then these firms will not finance their capital structure through the external sources rather they will use their retained profits to finance their capital structure.

Thus, if the pecking order theory is followed by the firms whose earnings are higher their capital structure will show the less proportion of leverage in their capital structure. If such firms need money to finance their capital structure then they will first utilize their retained earnings, then the firms will finance through the issue of debt and lastly, the firms will issue equity capital. Such an action is because of the cost which is coupled with the issue of new equity due to the irregular information. In capital structure the proportion of debt increases when the amount required to finance is more than the retained earnings, on the other hand the proportion of the debt decreases when the amount required to finance is less than the retained earnings. Thus, the inverse relationship is expected between the leverage and the profitability under the pecking order theory. It is assumed that the firms who earn more profit and require fewer amounts for investment will have less debt under the pecking order model. It is also assumed that the firms earn profit due to its market value thus the market leverage also shows the inverse relationship between the market leverage and the profitability.

In the pecking order model, less book debts should be resulted with higher earnings. Firstly, retained earnings are preferred by the firms, then comes the debts and equity as the last resort if funding is required. Debt are generally required if investment are more than retained earnings and decreases when investment is less than retained earnings. Therefore, an inverse relationship between leverage and profitability is predicted by pecking order model. In other
words, the firms having a lot of profits and less investments have little requirement of debt as per pecking order theory. Since profitability increases the market, an inverse relationship between book leverage and profitability also holds for market leverage.

However, in a trade-off theory framework, an opposite conclusion is expected. When firms are profitable, they should prefer debt to benefit from the tax shield. Adding up to this it is also seen that if the firms previous profits is a good substitute for the profits to be earned in the future and these firms can have the access of more finance as the probability of returning back the borrowed amount is more. Thus, it is expressed that the firms having more profit have less chances of insolvency and have more chances to finance through debt and can avail the umbrella of the tax under the trade off model.

As per the theory of trade off, the more profitable firms will have high proportion of debt due to the agency cost, taxes and insolvency costs. The reason behind is that the predicted insolvency cost is reduced when the firms profit is increased. On the other hand the reduction of corporate interest payments encourages the firms with more profit to finance their investments with the help of debts. The researchers such as Easterbrook (1984), Jensen (1986) and Jensen and Meckling (1976) in their agency model proved that firms who are financing their investment through debts are able to manage agency problems by compelling the managers to distribute more of the company’s excess cash. It is also estimated that the profitability increases the proportion of debt in the capital structure.

According to the trade-off theory, more profitable firms are pushed towards higher book leverage due to agency costs, taxes, and bankruptcy costs. First, with increase in profit the expected bankruptcy costs decline. Second, profitable firms
are pushed towards debts due to the deductibility of corporate interest payments. Finally, in the agency models of Jensen and Meckling (1976), Easterbrook (1984), and Jensen (1986) discussed that higher leverage helps to control agency problems by forcing managers to pay out more of the firm’s excess cash. As per the assumptions of trade-off theory the proportion of debt in the capital structure increases with profitability. Since, along with the profitability, the market value also increases, but it is not necessary the market leverage also shows the positive relationship.

The trade off theory shows the positive relationship between the leverage and profitability due to the promise to pay out the maximum portion of the pre-interest earnings to debt payments. Ross (1977) also showed that the managers used the larger proportion of debts as an indicator of bright future of the firm. Meanwhile, based on agency theory, there are two possible explanations. Jensen (1986) expects the positive relationship, if the market for corporate control was effective. However, if it was ineffective, he predicted a negative relationship between profitability and leverage, and a positive relationship between profitability and financial leverage if the market for corporate control was effective because debt reduced the free cash flow generated by profitability.

Since the research work of Modigliani and Miller (1958) many research work has taken place but no constant relationship has been found between the leverage and the profitability. Myers (1977) stated that the retained earnings are considered most instead of raising funds by issue of debentures or equity shares by the firms. This is the so-called “pecking order theory”. If the statement of the pecking order theory proofs to be right then, the lower debt-equity ratio will be predicted in the firms with higher profitability. According to Myers (1984) pecking order theory of capital structure showed that the profitable firm would prefer internal sources
to fund their investment rather than go for external sources. Hence, the firms having more profit would demand less debt, since funding the investment internally was more cost effective and easier.

If the previous studies are looked into then more results are shown as the inverse relationship between the profitability and the leverage. While studying the US firms Titman and Wessels (1988) and Friend and Lang (1988) found the negative relationship between leverage and profitability. On the other hand Kester (1986) studied both US firms and Japanese firms and found the inverse relationship between leverage and profitability. In the last 20 years many researchers studied the international data and found that both the developed and developing countries also show the negative relationship between the leverage and profitability. These results are shown by the Wald (1999) and Rajan and Zingales (1995) in developed countries. Wald (1999) also states that the effect on debt/asset ratio is due to the profitability. Whereas Booth et al (2001) and Wiwattanakantang (1999) found such relationship in the developing countries. In 2002, Huang and Song also found the inverse relationship of total leverage with profitability.

If we see the other side of the coin the researchers line Long and Maltiz (1985), Jensen, Solberg and Zorn (1992) showed the positive relationship between the profitability and leverage favoring the trade-off model.

While comparing to the previous research work, the previous researchers have also found the negative relationship between leverage and profitability. Titman and Wessels (1988) and Friend and Lang (1988), have obtained the said results while studying the US firms. Kester (1986) studied both the Japan firms and US firms but the results were same i.e. Leverage and profitability were negatively related to each other. Wald (1999) and Rajan and Zingales (1995), studied the
international data for developed countries, where as Wiwattanakantang (1999) and Booth et al. (2001) studied the international data for developing countries. but all of them found the same results as discussed above. On the other hand according to Long and Maltiz (1985) there was the positive relationship between leverage and profitability, but the results was not proved to be statistically significant. Profitability has the largest single effect on debt/asset ratios was also proved by Wald (1999). Huang and Song (2002) also found the similar results as that of Long and Maltiz (1985).

Chang (1999) showed that the optimal contract between the corporate inside and outside investors could be interpreted as a combination of debt and equity, and profitable firms tended to use less debt. Meanwhile, Jensen, Solberg and Zorn (1992) found a positive one (supporting the trade-off theory).

**Size**

As per to tradeoff theory, first, large firms don’t consider the cost associated with the insolvency as a effective variable which will decide the proportion of debt ratio in the capital structure because the cost associated with it is fixed by the organization and forms the small percentage of the total value of the firm. Titman and Wessel (1988) in their paper discussed that due to the diversified nature the larger firms have less chance of insolvency. Due to this reason there can be the positive relationship between size and leverage. Thus, according to the trade off theory there exists the positive relationship between the leverage and the size because with the large size firms there is a less chance of firm’s insolvency. But, opposing to the trade off theory, the pecking order theory shows the negative relationship between the leverage and size. As Rajan and Zingales (1995) discussed that due to the conflicting information about the large size firms,
decreased the chance of undervaluation of new equity shares and thus support the issue of fresh equity for investment. Therefore, pecking order theory encourages issue of equity capital for investment purposes instead of debt. Meanwhile, previous research also has different results. Titman and Wessels (1988) and Drobetz and Fix (2003) measure size as the natural logarithm of net sales. However, according to them it was acknowledged that size can be substituted with net sales, because the size of the assets was kept as small as possible by many firms e.g., by using lease contracts.

The irregularity between the firm insiders and the capital market, size is considered as a proxy. The firms larger in size should be more competent of issuing information as they are carefully watched by analysts.

Akhtar and Oliver (2006) found that the firms having more profit and larger in size irrespective of whether they are Multinational company or domestic company had significantly less leverage. Thus the pecking-order theory of capital structure is supported for both MNCs and DCs. Rajan and Zingales (1995) and Wald (1999) studied the German firms which also found that larger firms tended to have less debt.

Meanwhile, many studies suggest there is a positive relation between size and leverage. Drobetz and Fix (2003) said that size was positively related to leverage, indicating that size was a proxy for a low probability of default. Empirical studies, such as Rajan and Zingales (1995), Marsh (1982), Wald (1999), and Booth et al. (2001), generally found that company size was positively correlated with leverage. Huang and Song found that size was positively related with total liability.
Marsh (1982) study also resulted that short term debt are generally considered by small firms and long term debt are generally considered by large firms. While issuing long term debt, the advantage of economies of scale can be taken by large firms, and may even have bargaining power over creditors. Hence, there is the inverse relationship between the cost of issuing debt and equity and firm size. However, size may also be a proxy for the information that outside investors have. Fama and Jensen (1983) also claim that the more information to the lenders is provided by the larger firms as compare to smaller ones. Rajan and Zingales (1995) also argued the same as stated above by Fama and Jensen (1983). Therefore, the capital structure of the larger firms will have more equity than debt showing lower leverage due to the less asymmetric information problems. However, more diversification and constant cash flows are found in larger firms; secondly, larger firms have less chances of bankruptcy as compared with smaller ones, ceteris paribus. Both arguments suggest size should be positively related with leverage.

According to Whited (1992) long term debt market could not be accessed by small firms since their collateralizable assets are less than growth opportunities. Titman and Wessels (1988) also stated that capital markets could be easily accessed by larger firms.

**Tax**

Modigliani and Miller (1958) study was mainly focused on the influence of tax on the capital structure of the firm. After that more or less all the researchers consider that for company’s capital structure tax is very important. More debt should be used by the firms which are having higher effective marginal tax rate so that tax shield benefit can be availed by the firms. Thus, the firms prefer to use the
tax deductibility of interest in order to reduce the tax bill. But, on the other hand the leverage is low if the firms have some other tax deductible items other than debt which can be used by them as tax shield. However, the firms would not be able to take advantage of debt, if a large amount of income is already sheltered from taxes by increased depreciation and carry forward of tax losses. In such a situation the tax rates will be low. Along with this if the firms are not able to make profit then also there will be no tax advantage to debt. Thus, only the profitable firms can avail the tax shield. So, all the profit making firms should have an objective to safeguard its income from taxes, but if we have a look in the real life situation then the opposite situation is seen. The firms whose profits are high are availing the benefit of tax shield to a smaller extent, as these firms are not in the requirement of funding their investment by debt. According to Donaldson (1961) most of the firms use retained earnings to do the funding of their investment just because of their high rate of earnings. In our study also we are considering tax as a variable in determining the pattern of capital structure as our all the firms are profitable.

According to the trade-off theory, more debt should be used by a company if the tax rate is higher and hence such a company should have more debts, so that more income should get tax benefit. However, it has been suggested by Fama and French (1999) that the company can not get tax benefits if proportion of debts are increased. As MacKie-Mason (1990,p. 1471) claims “Nearly everyone believes taxes must be important to financing decision, but little support has been found in empirical analysis.”As he also points out (MacKie-Mason, 1990, p. 1471): “This

---

paper provides clear evidence of substantial tax effects on the choice between
issuing debt or equity; most studies fail to find significant effects. [...] Other
papers miss the fact that most tax shields have a negligible effect on the marginal
tax rate for most firms. New predictions are strongly supported by an empirical
analysis; the method is to study incremental financing decisions using discrete
choice analysis. Previous researchers examined debt-equity ratios, but tests based
on incremental decisions should have greater power.” As he adds, debt-equity
ratios “are the cumulative result of years of separate decisions. Tests based on a
single aggregate of different decisions are likely to have low power for effects at

However, as data to perform similar analysis as (MacKie-Mason, 1990) is not
available in the Czech Republic, the average tax rate defined as the difference
between earnings before taxes and earnings after taxes, scaled by earnings before
taxes, is used as a proxy variable to analyse the tax effects on leverage in this
study.

DeAngelo and Masulis (1980) in their research paper discussed that the firms
whose tax liability is more will prefer more of debt as a part of their capital
structure because debt financing is a good substitute for availing the tax benefits.
On the other hand the firms with less amount of tax will prefer less of debt as a
part of their capital structure.

However the evidence about the tax substitution hypothesis have also been found
by various researchers such as DeAngelo and Masulis (1980), Bowen et al.
(1982), MacKie-Mason (1990), Dhaliwal et al. (1992), Givoly et al. (1992), Allen
(1995), Cloyd et al. (1997) and Ayers et al. (2001)
Similarly, Schulman et al. (1996) stated that the firms which are successful to reduce their income to zero due to the use of sufficient tax shields from depreciation, issue of debt may not bring in additional tax benefit, and on the basis of non-tax consideration the decisions in respect of capital structure is taken. Opposing to the predictions of DeAngelo and Masulis (1980), the negative relationship is noticed between debt and non-debt tax shield in some of the previous literature (Givoly et al., 1992; Allen, 1995; Wiwattanakantang, 1999, De Miguel and Pindado, 2001; Ozkan, 2001). However, the results of Titman and Wessels (1988) do not provide support for an effect on debt ratios arising from non-debt tax shields. On the other hand, positive and significant relationship is found between the amount of non-debt tax shields and firm’s leverage by Bradley et al. (1984). He recommended that if the firms have more of the tangible assets as a part of their balance sheet then they can avail the benefit of high levels of depreciation and tax credits, and likely to have higher financial leverage. The lack of negative relation between non-debt tax shields and leverage ratios contradicts the theory that focuses on the substitutability between non-debt and debt tax shields (interest tax shields) as argued by De Angelo and Masulis (1980). Graham (2005) tried to explain the positive relationship between non-debt tax shield and leverage. The first problem that he noted with using non-debt tax shields is that depreciation and investment tax credits are positively correlated with profitability and investment. If profitable firms invest heavily and also borrow to fund this investment, this can induce a positive relation between debt and non-debt tax shields and overwhelm the tax substitution between interest and non-debt tax shields. In our study we use tax as one of the variable to find out whether multinational firms in FMCG sector in India use high levels of debt financing to fund their investments or not.
Past studies have shown the mix result regarding the relationship between the tax and the leverage. Gardner and Trzcinka (1992) find the positive relationship between the non debt tax shield while Shenoy and Koch (1996) find a negative relation.

**Liquidity**

Liquidity is defined as the ratio of current assets to current liabilities. According to the pecking order theory, less amount is borrowed from the external sources if the firms have high liquidity. Addition to this the liquid assets can be manipulated by the managers in favour of shareholders against the interest of debt holders, increasing the agency costs of debt. Therefore, the inverse relationship between leverage and liquidity is expected. Wang Juan and Fenglin Yang (2002) used liquidity ratio as one of the variable to proof the trade-off relationship between the debt ratio and collateral value of assets. Their results mainly oppose the pecking order pattern of funding the investments. They argued that Chinese firms would still prefer to go for equity finance even if the companies are capable of repaying their debts. Zingales and Rajan,( 1995) said that “Liquidity is a property of the assets to be converted into cash. Firms in their operations seek to maintain liquidity, or ability to timely perform its obligations. Liquidity ratios compare current liabilities with current resources available to meet current liabilities.” Capital structure is measured in the form of debt/leverage ratio.

---

A debt ratio is a criterion to judge how the assets of the firm are financed. Degree of investment risk can be represented by debt ratio. Firms having considerably high level of debt are lacking financial flexibility. Therefore, firms can face difficulties in searching new investors, and also the risk of insolvency. Though, issue of debt is not bad. Even the debt can generate more return on investment if they are used properly, debt level is under control and monitored regularly. The firm which quickly pays all its debt in time is known as liquid firms.

**Relationship between leverage and liquidity**

Williamson (1988) argues, “the optimal level of debt of the firm is limited by the liquidity of the assets and it depends on the average usage of the debt in the particular industry”\(^1\). On the other hand Morallec (2001) said “the importance of liquid assets is conditioned by the value of its assessment – whether the value of liquid assets is measured by the liquidation value of the firm’s assets or by the selling price of assets over the entire life of the firm”\(^2\). Sibilkov (2004) in her study related to U.S. public companies concluded that leverage and debt of the companies were increased due to the liquid assets. As per the result, it can be concluded that firms are more leveraged which have more liquid and thus reversible assets.

If such firms are not able to repay its current liabilities, they are safe obligors because they have enough liquid assets that can cover the arrears. Lipson and Mortal (2009) in their research says “more liquid firms are more financed by its

---

internal resources and are therefore less leveraged”. The companies whose assets valued more than $1 million and were also listed on stock exchanges were taken as sample for their research.

Based on the discussion above, the hypotheses were stated:

(i) There is a statistically significant relationship between the liquidity ratios and leverage ratios.

**Relationship between short-term and long-term leverage and liquidity**

According to Anderson (2002), “Firms with high liquid assets prefer high degree of long-term leverage without changing the structure of their liquid assets. Liquid assets is a guarantee that in times of lower earnings, or when it is difficult for a company to get financed on the capital market, or when the cost of capital is extremely high, can survive such situations. Such firms will avoid riskier projects that might bring them higher profit and for that reason growth of the company will be slower”. Anderson (2002) has also showed the positive relationship between long-term debt and liquid assets of the company. Akdal (2010) has demonstrated, on a sample of British companies listed on stock exchanges, through all five measures of leverage, negative relationship between liquidity and leverage of the firms.

---

All of the contrasts in the results showed in previous studies were the motivation for this research where the aim was also to examine the relationship between liquidity and short-term and long-term leverage. In order to derive conclusions about it, the additional hypotheses are tested on the sample of multinational firms: (ii) There is a statistically significant relationship between liquidity and long-term, total and short-term leverage,

2.2.2 Selected Variables for Research Question 2

Accordingly, after reviewing the pecking order theory, we test the second research question: how do multinational firms in the FMCG sector in India raise capital for investments, internally or externally (with debt, equity, or debt to repurchase equity).

Hence, the relevant variables we used are as follow: financial deficit as independent variable and net debt issue, net equity issue, and net debt issue to repurchase equity as dependent variables. Why do we test hypothesis 2 in this research is that, how do multinational firms in the FMCG sector in India is financing the firm’s deficit as these firms are experiencing financial deficit over the period of time (see table).

We chose net debt issue, net equity issue, and newly retained earnings as dependent variables as pecking order theory suggests firms to prefer internal financing to external financing, and prefer debt to equity.

The following is the theories prediction of the relationship between variables and some previous research findings. The theories prediction is as follows. Based on
asymmetric information, the underinvestment problem can be avoided if the firm can finance the investment by issuing securities that will have lesser or nil undervaluation. For example, internal accruals do not have any element of undervaluation and in case of debt the undervaluation will be less severe. Therefore, firms use equity financing only as a last resort.

Pecking order theory states that changes in debt have played an important role in assessing the pecking order theory. This is because the financing deficit is supposed to drive debt according to this theory.

Shyam-Sunder and Myers (1994, 1999) paper tested traditional capital structure models against the alternative of a pecking order model of corporate financing. The basic pecking order model, which expects external debt financing, determined by the internal financial deficit, has much greater explanatory power than a static trade-off model which predicts that each firm adjusts toward an optimal debt ratio.

Shyam-Sunder and Myers (1994) summarized main conclusions regarding POT as follows. (1) The pecking order is an effective first-order descriptor of corporate financing behaviour. (2) The co-efficient and significance of the pecking order variable change hardly at all. (3) The strong performance of the pecking order does not occur just because firms fund unanticipated cash needs with debt in the short run.

Shyam-Sunder and Myers (1999) summarized the main conclusions regarding pot as follows. (1) The pecking order is an excellent first-order descriptor of corporate financing behaviour, for their sample of mature corporations. (2) The strong performance of the pecking order does not occur just because firms fund
unanticipated cash needs with debt in the short run. Their (1994, 1999) results suggested that firms planned to finance anticipated deficits with debt.

Previous research from Indonesia, Ari Christianti (2008), concluded that: (1) The results of this study does not fully support the pecking order theory in explaining the behaviour of firm financing in the IDX especially the manufacturing sector. This can be explained from the results of the estimation that shows a negative and significant co-efficient of pecking order theory. (2) It may be explained from the results of this study is the Indonesian capital market conditions that are different from capital markets in developed countries studied by Shyam-Sunder and Myers (1999), Frank and Goyal (2003) and Jong, Verbeek, and Verwijmeren (2005). In addition, the impact of economic crisis in 1997 still affected the economic condition of Indonesia until 2005.

Cotei and Farhat (2008) investigated the models used in testing the trade-off and pecking order theories at the industry level as well as across all industries. Under the pecking order model, firms in financing deficit used debt to finance their new investment whereas firms in financing surplus ended up retiring debt rather than repurchasing equity. Hence, their results showed that for the pecking order model, they rejected the hypothesis that firms had a symmetric behaviour regardless of the sign of the financing variable. Their results showed that firms had the tendency to reduce debt by a significantly higher proportion when they had financing surplus compared to the proportion of debt issued when they had financing deficit.