Chapter 3: Survey of Existing Literature

3.1. Introduction

3.2. Association Between Financial Leverage and Value

3.2.1. In Developed Country

3.2.2. In Developing Countries (Excluding India)

3.2.3. In India

3.3. Association between Risk and Return

3.3.1. In Developed Country

3.3.2. In Developing Countries (Excluding India)

3.3.3. In India

3.4. Other Related Work

3.5. Research Gap

Chapter 3: Survey of Existing Literature

3.1 Introduction:

Before stepping into the capital market investment, it is necessary for an investor to understand the factors which influence the value of their investment. In this context, the literature identified some external and internal factors that influence the value of the company. The fundamental variables such as the firm's performance, capital structure, etc. are the internal factors that are controllable to some extent whereas external factors such as international and domestic economic scenario, exchange rate, trade policy, industrial condition, etc. are out of firms control. However, there are many factors that affect company value with varying duration, power, intensity, and are mostly uncontrollable. These factors can be bifurcated into the economic and non-economic factors or firm and industry, or country and international or market and non-market factors. So in order to find out the impact of different factors on firm value different types of research, work has been undertaken so far by various researchers all over the world. The review of some of those related major studies has been taken into consideration for developing a clear idea about the thrust areas in those contemporary researches. In this regard, the relationship between the value of a business organization and risk factors have been prioritized.

3.2 Association between Risk and Value: The discussion on the association between risk and return is a common phenomenon in finance. But many research work done on a risk-return relationship and fewer studies were done on risk value relationship. In a risk-return relationship, it is a common proverb that high risk fetches high return for the business firm and low-risk yield low return for the corporation. So if a business firm

earns a high return by taking the high risk can its firm value will be higher than other low risk-bearing companies or high risk-bearing company value will be lower than low risk bearing company? To answer this question a lot of related research work was done at a different angle. Some of the research works are discussed here. As the economic nature of the developed and developing country is not the same so separately review was done from old to new.

3.2.1. In Developed Country: Develop countries are the pioneers of many research works. The finance subject is no exception to that. In the developed country, many research works have been done on finance for economic development and for taking important financial decisions. Some of the relative studies are discuses to find out the research gap.

The association between risk and firm value is one of the basic questions in finance and has been studied extensively. Modigliani and Miller's (1958) work is considered as a basis of capital structure research. Their work of risk Irrelevance theorem concluded that financial structure does not affect corporate value in an ideal environment but the profitability and the risk determine the value of a company. Their assumption of an ideal financial environment was that no transaction costs, no tax, and inflation are present in the business environment. But the said assumption was criticized by many finance authors as in reality no corporate actually operates in no inflation, no tax, and no transactional costs environment. This cretinism motivated authors to modify their assumptions and did further work on it. In their further work (Modigliani and Miller 1963) they concluded that if tax shield effect work then levered firm market value would be more than un-levered firm. Given the great debate on capital structure, and adding to the aforesaid Modigliani and Miller models (1958 & 1963), the number of work has provided further contributions in the said field.

M&M (1961) argued that corporate market value is depending on its earning capability and the risk inherent of its assets. M&M claimed that in a perfect market environment, the value of corporate remains unaffected on its dividend decisions (Miller & Modigliani, 1961).

Jensen and Meckling (1976) added that an additional disadvantage is an agency costs for equity holders and debt holders. To further substantiate this argument DeAngelo and Masulis (1980) predicted an inverse relationship between leverage and investment tax shield, while the association between the corporate tax rate and the debt level was expected to be positive.

Ross (1977) first found out how financing choices of managers create a signal to investors about managers' inside information. Ross found out debt financing generated a good signal to the market whereas equity financing creates a bad signal in the stock market. So when managers issue debt in the market for financing the project, investors assume that the company has good future prospects and so they like to purchase the share at a high price but if the reverse thing happened they like to pay lower prices for the stock. From the said work Rosss (1977) author concluded that leverage can able to increase the market value of the stock since investors increasing the market's perception of value.

Myers and Majluf (1984) in their work found out that if the manager has superior information of business and issues new shares to finance new projects then the market price of shares falls but if they issue risk-free debt, the market price of share does not fall considering other things remain fixed. Their work is known as the "pecking order" theory. According to their pecking order theory firms likes internal finance (from) over

external finance but when retained earnings, are not sufficient to finance new project firms prefer debt before new equity.

From MM theory it is clear that capital structure of a firm is irrelevant in the perfect capital market but in our real business world imperfection of capital market is also common and so letter study of agency cost theory (Jensen and Meckling, 1976), trade-off theory (Myers, 1984) and pecking order theory (Myers and Majluf, 1984) showed relevance of capital structure in imperfect market. Such imperfections of the capital market include bankruptcy costs (Kim, 1998; Kraus and Litzenberger, 1982; and Baxter, 1967), agency cost (Jensen and Meckling, 1976), gains from leverage-induced tax shields (DeAngelo and Masulis, 1980) and information asymmetry (Myers, 1984).

Taking into the above research, Pandey (2004) done his work on the said matter and found out that shareholder risk and return are affected by the capital structure decision of the corporate. Therefore he opines that the market value of its stocks may be affected by the financial leverage of a corporate. He further said that if capital structure pattern can affect a corporate value, the company would like to build a capital structure pattern which maximizes their organization value. However, there exist a number of conflicting theories on the association between capital structure and the company's value which induce researchers to do further research on the said matter.

Myers in his work 2001 said that debt offers firms a tax shield, and firms, therefore, pursue higher levels of debt in order to gain the maximum tax benefit and ultimately enhance profitability. However, high levels of debt increase the possibility of bankruptcy. The advantages of this approach include the possibility of deducting interest payments from company tax (Modigliani and Miller, 1963).

Chung (1989) did his work to find out the impact of operating, financial leverages and intrinsic business risk on firm value. In his work panel data was used to estimate operating and financial leverage of 403 non-financial USA firms for the periods 1995 to 1999. They found that variation of excess return significantly explain by the intrinsic business risk and degree of operating leverage when the organization's revenue is negatively correlated with the market portfolio. In contrast, when an organization's sale is positively correlated with the market portfolio, then variation in the excess return can be explained by intrinsic business risk and the degree of financial leverage significantly.

Opler and Titman (1994) reported a negative relationship between leverage and firm value during economically distressed periods. The sample consists of firms from the United States. In their work, they notice the adverse consequences of financial risk are more vivid in concentrated industries. The study also found that highly leveraged organizations lose substantial market share than their conservatively financed competitors during industry downturns.

McConnell *et al.* (1995) empirically investigated the relationship between corporate value, leverage and equity ownership where they found a negative correlation between leverage and value of the high-growth firm and positive correlation with leverage for 'low-growth' firms.

Fama and French (1998) in their work "Taxes, Financing Decisions, and Firm Value" use cross-sectional regressions to study how a firm's value is related to dividends and debt. With good control for profitability, the regressions can measure how the taxation of dividends and debt affects firm value. The simple tax hypothesis says that value is negatively related to dividends and positively related to debt. But they found the opposite. They found negative relations between debt and value even after controlling the three factors earnings, dividends, investment, and R&D.

In his work Graham (2000) opined that in his selected sample half of the firms paying corporate tax at a statutory rate so if that firm would able to double its debt level it could have able to increase its firm value up to 7.5% by leveraging its capital structure.

Aggarwal *et al.* (2008) made a study on the relationship between firm value and leverage on a global perspective. They documented that leverage is generally value-decreasing among high growth firms globally but the value impact of leverage among low-growth firms varies across national institution conditions. They pointed out that debt is value-decreasing among low growth US firms but value-enhancing outside the US.

Rayan (2008) conducted a study on 113 sample firms listed in the Johannesburg Stock Exchange (JSE) to find out the relationship between financial leverage and firm value. The date sate was collected for the period 1998-2007 from McGregor BFA database. The Regression analysis of the study showed that firm value was negatively correlated with financial leverage during study periods.

Mollik (2008) examined the effects of corporate capital structure (financial leverage) on the market value of selected firms listed in the Australian Stock Exchange. By employing the least square dummy variable (LSDV) method on the pooled time-series and cross-sectional data set, the author showed that the value of a firm raises significantly with financial leverage up to a certain range. His work also revealed a statistically significant positive effect of total interest-bearing and long-term financial leverage on the market value of a firm in Australia.

The study of O'Connell and Cramer (2010) explored a significant and positive relationship between financial risk and firm value. Findings indicated that a high level of debt improves the market performance of the firm.

Mseddi & Abid (2010) investigated the relationship between firm value and risk. They extended both the theoretical and empirical issues of Mandelker and Rhee (1984) and Mikai and Ferhat (2011) in their study investigated the effect of financial structures of firms on their values. In their study, ISE indexed 127 firms' data were used. The data were analyzed using the SPSS 15.0 program. According to the results of the analysis, the values of the firms were affected by the financial structures of the firms.

Likewise, Saeedi and Mahmoodi (2011) investigated the relationship between capital structure and firm performance. Results explored that capital structure has a significant and positive relation with Tobin's Q.

Taani (2013) in his work "The Relationship between Capital Structure and Firm Performance: Evidence from Jordan" showed that capital structure of firms was not a major determinant factor of firms' performance but debt to equity is positively related to return on assets and negatively related with the profit margin. The study was done on 45 manufacturing firms of Jordan listed on the Amman Stock Exchange.

Maria (2013) in her work "capital structure and firm value an empirical study on Romanian listed company" aims to investigate the impact of capital structure on firm value for Romanian companies at the same time want to find out the determinants of leverage. In addition to this, the work tried to empirically test the influence of debt structure on the firm value given different growth opportunities of Romanian companies. The sample included 48 companies listed on Bucharest Stock Exchange for the period 2003-2012. Five regression models were used: The pooled regression model, fixed-effects model, Time effects model, The two way fixed effects model and Simultaneous regressions model. The results show that capital structure has a positive impact on firm value, for both firms facing low growth opportunities and firms facing high growth opportunities. Profitability, liquidity, and tangibility have been found as negative

determinants of capital structure, while growth opportunities, firm size, and firm financial quality have been found as positive determinants of capital structure.

Muriu (2016) in his work found that highly leveraged microfinance institutions ware more profitable than lesser leveraged firms. The said work used an unbalanced panel dataset from 1997 to 2008 of 210 Micro Finance Institutions across 32 Sub-Sarounding Africa countries. The author suggested that MFI can improve its profitability by using long-term debt in its capital structure.

In the work "The Effect of Capital Structure on Firm Value for Vietnam's Seafood Processing Enterprises", Cuong and Canh (2012) investigated the optimal leverage point at which the firm's value was maximized. The said study was done on the database of 92 Vietnam's seafood processing enterprises (SEAs) from 2005 to 2010. An advanced panel threshold regression techniques were implemented to test the capital structure effect on firm value. The authors use ROE as a firm value-creating tool and debt ratio as a capital structure surrogate. The empirical results were significantly indicated a positive relation between firm value and debt ratio. Besides it, the authors also found the positive effect of debt ratio was up the 59.27% of the debt ratio and then its effect is negative. Therefore, the authors concluded that the relationship between financial leverage and the corporate value was nonlinear with a convex Parapol shape. Therefore the said study shows that firm value will increase up to a certain limit of debt use.

3.2.2 In Developing Countries (excluding India): After the industrial revelation in advance countries, the effect of development and knowledge of the developing country has been spread all over the world. A developing country has been stated to use advance country knowledge for its growth purpose. Research in finance is no exception to that. Some of the finance-related researches are discussed below.

Chen and Zhang (1998) found out a common set of structural risk characteristics that are related to “value stocks” in all the countries. They use the dividend cut to measure the degree of distress of a firm, financial leverage to measure the financial risk, and earning uncertainty to measure the riskiness of future cash flow. They found that indeed value stocks had rather distinct characteristics as measured by their intuitive risk factors. These factors can explain simultaneously across the six markets the relative return differences within each country. In this study, the author finds out that the higher returns for value stocks are compensation for higher risk. This study also shows that strong value stock effects persist in the United States; they are somewhat less persistent in Japan, Hong Kong, and Malaysia; and are undetectable in Taiwan and Thailand. This is due to the relative riskiness of the value stocks in the respective markets. Overall, the evidence is consistent with a simple intuitive story. Value stocks have higher returns in the United States, Japan, Hong Kong, and Malaysia because these are likely to be from firms that are in distress, have high financial leverage, and face substantial earnings uncertainty in the future.

A study was done by Claessen *et al.* (2000) to compare the growth and financing patterns of East Asian corporations for the year before the crisis with the corporates in other countries. 850 public listed companies from the Republic of Korea, Malaysia, Hong Kong (China), Thailand and Indonesia were taken for the study. The result shows that firm-specific weaknesses that already in existence before the crisis were essential factors in the failing performance of the corporate sector. So only the debt level was not responsible for company failure.

Demsetz and Villalonga (2001) considered leverage and Tobin’s Q (as a measure of value) as endogenous variables. This means that there were two-way causal relationships between these variables. The authors found that during the study periods that capital

structure affects the performance of the firm and performance also, in turn, affects capital structure.

The study on the impact of the economic crisis on the capital structure was conducted by Gunay (2002). The main finding of this study was Turkey's firms immunize themselves against economic crises by having low leverage. The author found high leverage firms were near to financial distress and it leads to the high cost of borrowed capital in the post-crisis period. It leads to the low-profit margins in the post-crisis period and adverse effects on the value of the firm.

Chiang (2002) undertook a study over 35 companies listed in Hong Kong Stock Exchange and found that profitability and capital structure are interrelated.

Suto's (2003) study on the capital structure for the 1997 crisis revealed the key factor which accelerated the economic distress occurs due to increase dependency on debt financing. The dependency had lead to excess investment before the crisis and also instability in the Malaysian economy.

Chen (2003) find out firms with good growth opportunities tend to use their own capital to avoid underinvestment. The author also found in his study the effect of debt policy or ownership configuration on the firm value. In his work he pointed out when the firm's tax-saving benefits are more than the cost of financial distress cost then debt level is an increasing factor of firm value. He also finds out where net benefits are favorable to the organization and it is maximum then optimal benefit to the value of the firm is achieved. In addition, the effect of capital ownership and debt policy may influence firm value is subject to tax, agency cost, and financial difficulty due to the use of debt. When the firm exceeds its debt to that optimal level of borrowing, firm value is adversely affected by the debt level. His result was consistent with the capital structure theory.

Eslamloo and Pour (2014) had done their study to investigate the effect of financial decisions by using financial leverage and dividend total assets ratio on a firm's value with different growth opportunities among approved firms in the Tehran stock exchange (TSE). To study this effect four hypotheses applied for two groups of firms one with high growth opportunities. For this study 75 firms were selected for each year. According to the meaning of growth opportunities, the hypothesis was studying in two groups including high growth opportunities firms and low growth opportunities firm involving 125 firms in each group. The step by step multilateral regression applied to study the relation or effect of variables. The results of this study showed a considerable relation between financial growth opportunities, but they have an appositive relation and reject the stated hypothesis. Also in firms with low growth opportunities, the relation between dividend total asset ratio to properties and firm value is considerable and the relationship between financial leverage and firms with low growth opportunities that are in opposition with the stated hypothesis.

Cheng and Tzeng (2011) have inventoried the Effect of Leverage on Firm Value and the influence of this effect on Firm Financial Quality. For this purpose, they used the Generalized Method of Moment (GMM) to estimate the effect of leverage on firm values and contextual variables influencing this relationship using 645 companies listed in Taiwan Securities Exchange (TSE) from 2000-2009. Their findings were- (1) the values of the leveraged firms are greater than that of an unleveraged firm if there have bankruptcy probability. (2) If the benefit and cost of debt simultaneously, the leverage is significantly positively related to the firm value before reaching a firm's optimal capital structure. (3) The positive influence of leverage on the firm value tends to be stronger when the firm financial quality is better.

Chen & Chen (2011) done there study to found the influences of profitability and leverage on firm value. They found higher profitable firm value is more than lesser yield firms. Profitability thus had a significantly positive influence on firm value during the study periods. They also found during the study periods profitability had a negative influence on firm financial leverage. However, when the firm increases the leverage, cost of finance increased and negatively influence firm value.

Antwi *et al.* (2012) in their work "impact of capital structure on a firm value" found out that capital structure was the relevant factor of firm value in Ghana. For the study authors used 34 companies listed in the Ghana Stock Exchange. They used the OLS model to carry out the study. They also found out long-term-debt had more impact on firm value than equity capital of the firm.

Ogbulu and Emeni (2012) done their work on 124 companies listed in the Nigerian Stock Exchange (NSE) to find out the effect of capital structure on firm value. The ordinary least squares method was used to analyze the data sate. The result of the study revealed that in an emerging economy like Nigeria, equity capital was irrelevant to the firm value, whereas Long-term-debt in the capital structure was found as a major determinant of a firm's value. Following the findings of this study, the authors advised the financial decision-maker to employ more of a long-term-debt than equity capital in their capital structure as it helps to increase firm value.

Hermuningsih (2013) paper examined the effect of profitability, growth rate, and financial leverage on firm value. The Structural Equation Model (SEM) was applied to 150 listed firms in Bursa Efek Indonesia (BEI) during 2006-2010. The empirical findings showed that the profitability variable, growth rate, and financial leverage were influenced firm value positively and significantly. It means that the higher the profitability, the higher the growth rate and the bigger the financial leverage, the bigger

will be the firm value. The author also found capital structure configuration was not an intervening variable for a growth rate and for profitability.

The study of Abazari *et al.* (2014) found that external risks such as the risk of the market and the economy have an impact on the firms' value and operating risk.

Hatem (2015) in his work found out a U-shaped relation between Managerial Ownership, Leverage and Firm Value. 246 French company 11 years data were used to conduct the study. He used simultaneous equations and data panel's methods to test the said hypothesis. The empirical results support the interaction between these three variables. He concluded a nonlinear relationship between insider ownership and shareholder wealth. However, an increase in debt leads to an increase in managerial ownership. Moreover, the share capital held by managers is a significant factor in explaining the debt ratio of French firms.

The main objective of the study of Adetunji *et al.* (2016) was to explore the relationship between financial leverage and firms' value, as well as evaluate the effect of financial leverage on firms' value. A sample of 5 firms listed on the Nigeria Stock Exchange (NSE) for a period of 6 years from2007-2012 was used for this study. Data was collected from annual reports of selected firms. The Ordinary Least Square (OLS) statistical technique was used for data analysis and hypothesis testing. The study revealed that there is a significant relationship between financial leverage and firms' value and that financial leverage has a significant effect on firms' value. The study concludes that financial leverage is a better source of finance than equity to firms when there is a need to finance long-term projects. However, various economic factors may have despicable effects on the profitability of Nigerian firms, as such the use of debt financing in such firms may yield negative impacts such as bankruptcy as well as low firm value. The

study, therefore, recommends that financial leverage be optimized by firms to aid the maximization of firms' value.

Asif and Aziz (2016) were done the same study on their country 20 cement company listed in Karachi Stock Exchange (KSE). For analysis, several variables were used in this paper in which Debt to equity ratio, return on capital employed, share capital and Current ratio were used as independent variables whereas Economic value-added was considered as a Dependent variable. Analysis of the data was conducted by descriptive statistics, regression, and correlation. The outcomes represent that most of the independent variables have a positive correlation which concluded that Capital Structure has a positive impact on Firm value in Pakistan.

Javeed *et al.* (2017) made their study to test the most discussed relationship between capital structure and firm value. This research also investigated the impact of corporate governance measures on firm value and the impact of capital structure on corporate governance measures. The study used the 775 firm-year observations of 155 non-financial companies listed at Karachi Stock Exchange for financial years containing 2008 to 2012. Keeping in view the nature of data (balanced panel), the fixed effects regression method is employed to estimate the formulated relationships. For the first relationship of interest (impact of capital structure on firm value), the study found a significant positive impact, but in the case of corporate governance, only board independence and ownership concentration measures are found affecting firm value significant with a positive sign. For the third relationship i.e., the impact of leverage on governance measures, this study found no significant effects.

3.2.3 In India:

Ghosh (2007) in his work exhibited how leverage and managerial ownership relate to firm valuation. It was argued that both, financial leverage (which serves as an external monitoring function) and managerial ownership (which serves as an internal monitoring function) affect firm value. After controlling the effect of other variables, the results revealed the existence of a substitution monitoring effect between debt and the managerial group. Additionally, managerial ownership found as a significant influencing factor of firm value.

Gupta *et al.* (2016) examined the association between the degree of leverages and firm value of 231 manufacturing firms listed in the National Stock Exchange (NSE) in India over a period from 2001-2002 to 2010-2011. The Degrees of operating and Financial leverage were taken as independent variables and price-earnings ratio (a proxy of firm value) as a market price-based dependent variable. The standard ordinary least square regression model was applied to test the relationship between dependent and independent variables. The findings of this study showed a statistically significant negative relationship between firm value and degree of operating leverage and a statistically insignificant relationship between firm value and degree of financial leverage both at the levels of the individual firm and portfolio of firms.

Chadha and Sharma (2016) made a study on manufacturing companies of BSE for finding out the relationship between leverage and value of a firm where he found out there is no significant relationship between the firm's value and leverage. He used panel data fixed effect regression approach on four different models for finding out the above relation. During their study period, they found leverage had no impact on the firm's value in the Indian manufacturing industry. However, the authors pointed out in the

Indian manufacturing industry, variables such as size, age, profitability and growth of the firm were positively and significantly correlated with the firm value.

3.3 Association between Risk and Return: The association between risk and return is one of the interesting fields of reacher. Numbers of research work have already been done all over the world on it. To build the research hypothesis, some works on risk and return were viewed. In the section below, they are discussed shortly.

3.3.1 In Developed Country:

A number of an empirical study on the association between financial leverage and the financial performance of firms has been studied since the work of Jensen and Meckling (1976). The empirical result has been showing a mixed result. Some researchers such as Ghosh and Jain (2000), Berger and Bonaccorsi (2006), Taub (1975), Hadlock and James(2002), Roden and Lewellen(1999) and Champion(1999) found a positive relationship between firms' financial performance and financial leverage. The above work generally argues that financial risk has a positive impact on a firm's returns. Hutchinson (1995) pointed out in his work that the said positive impact of debt only available when the internal rate of return exceeds its interest cost of debt. Hadlock and James (2002) in his work proposes flexibility in capital structure so that the firm can able to adjust its financial leverage when earning the capability of the firm fall below its financing cost. Berger and Bonaccorsi (2006) found in the banking sector high financial leverage was related to higher profit efficiency. Vitor and Badu (2012), Majumdar and Chhiber (1999), Simerly and Li (2000), Hammes (2003), Mesquita and Lara (2003), Zeitun and Tian (2007) find out a negative association between financial leverage and financial performance of a firm..

Titman and Wessels (1988) observed in their study that highly profitable firms had lower levels of financial leverage than less profitable firms. They also observed that the samples firms first used their earnings before using outside capital. In the work of Sheel (1994), Sunder & Myers (1999) and Wald (1999) authors found out that good performing firm using own capital over debt capital as stock price reflect company performance so the arrangement of the fund by using equity was not too hard for good performing firm.

A study on the relationship between culture, capital structure and performance was undertaken by Gleason *et al.* (2000). By using data from retailers in 14 European countries, they showed that capital structures differ by the cultural classification of retailers which ware strengthens to the inclusion of control variables that will influence capital structure. Moreover result also showing that retailer performance is not depending on the cultural influence whereas the capital structure will influence the performance.

Richard *et al.* (2004) investigated the effect of leverage on the profitability of the air carriers. The findings of this work show a significant negative relationship between ROE and leverage during the study period.

Philips and Sipahioglu's (2004) objective was to find the relationship between capital structure and corporate performance with hotel companies. Using data collected from 43 UK quoted organizations that possess an interest in owning and managing hotels, Modigliani and Miller's capital structure irrelevancy theorem was tested. The empirical analysis revealed no significant relationship was present between the level of debt and financial performance. These results are consistent with Modigliani and Miller's theorem.

King & Santor (2008) made their study to analyze the linkage of family ownership and firm performance with the capital structure on Canadian firms. Based on Tobin's q ratios, the result revealed that self-supporting family-owned firms with a single share class had similar market performance compared to other firms and they had superior ROA and higher financial leverage. Authors also found that family-owned firms that used dual-class shares have valuations that are lower by 17% on average relative to broadly held firms, even though having similar ROA and financial leverage. Four profitability variables and two risk variables were taken in the study.

Gill (2011) worked on Abor's (2005) findings regarding the effect of capital structure on profitability by examining the effect of capital structure on profitability of the American services and manufacturing firms. The Empirical results of the study show a positive relation between short-term debt to total assets and profitability and between total debt to total assets and profitability in the service industry. The findings of this work also showed a positive relationship between financial leverage and profitability in the manufacturing industry.

Mule and Mukras (2015) investigated the relationship between financial leverage and the financial performance of the listed firms in Kenya. They used annual data for the period 2007 – 2011. Using various panel procedures, the study finds financial leverage significantly, and negatively, affects the performance of listed firms in Kenya. As the performance of firms depends on other things also so authors control for the effects of those other variables by including them in their models. In this respect, the study also found that ownership concentration and asset tangibility which are control variables, are important determinants of firms' performance and have a positive impact on the performance of firms in terms of Tobin's Q.

3.3.2 In Developing Countries (excluding India) The researcher of developed financial markets studies the relationship between financial leverage and performance of firms in developing countries. For example, Hung *et al.* (2002) found that while financial leverage is positively related to assets of the firm, it was negatively associated with profit percentage in Hong Kong's property markets firm. Kyereboah-Coleman (2007) found that financial leverage was positively associated with the performance of microfinance institutions in Africa. On the other side, researcher work such as Abor (2005) for Ghana, Abor (2007) for South Africa and Ghana, Amidu (2007) for Ghana, and Onaolapo and Kajola (2010) for Nigeria and Odongo *et al*. (2014) for Kenya reports a negative relationship in African country between financial leverage and firm value. The said country-specific studies show a similar result. However, in Egypt, Ebaid (2009) found a weak-to-no-effect result of capital structure on firm performance.

In the above Abor (2005) study the relationship between capital structure and profitability of listed firms of the Ghana Stock Exchange was don and find a significant positive relationship between the ratio of short-term debt to total assets and ROE and negative relationship between the ratio of long-term debt to total assets and ROE.

Berger and Bonaccorsi (2006) used profit efficiency as an indicator for measuring the performance of a firm. This work manager's performance was evaluated by using profit efficiency because the profit efficiency counter for the effectiveness of the manager to raise revenue and control cost and is close to the concept of value maximization. By measuring the profit efficiency, shareholder losses from agency costs are relatively close to the losses of potential accounting profits. The result shows that neither higher leverage nor lower equity capital ratio is connected with higher profit efficiency for all range of data.

Ong and Thea (2007) studied the relationship between capital structure and corporate performance of the firm in the construction sector before and during the crisis. A linear model had developed to estimate the effect of variation in the capital structure to the variation in the firms' corporate performance. Various proxies of variables were used to examine the relationship. The result shows that there is a relationship between firms' capital structure and corporate performance. In the interim, the result also indicates that there were no relationships between the various variables that had been examined. For big construction companies, only ROC and EPS for large construction companies had a significant relationship with capital structure. Comparatively, ROC and DEMV were the most associated relationship among all the variables examined.

A study had been done by Akintoye (2008) on the sensitivity of performance to capital structure on selected food and Beverage companies in Nigeria. The result shows that performance indicators to turnover (Earnings before Interest and Taxes, Earning per Share and Dividend per Share) and the measures of leverage (Degree of Operating Leverage, Degree of Financial Leverage and Dividend per Share were significantly sensitive).

Ebaid's (2009) work revealed that capital structure has no influence on the financial performance of listed firms in Egypt. He established his conclusion by using three accounting-based measurements of financial performance i.e. Return on Asset (ROA), Return on capital employed (ROCE) and Return to equity (ROE).

San and Heng (2011) investigated the relationship between capital structure and corporate performance of a firm before and during the crisis of 2007. They had focused on 49 construction companies divided into big, medium and small sizes, based on the paid-up capital and were also enlisted in the Main Board of Bursa Malaysia from 2005 to

2008. Their observations revealed a positive relationship between capital structure and corporate performance in selected proxies along with the absence of any kind of relationship between the variables investigated. In their findings, ROC has a positive relationship with DEMV and EPS with LDC whereas EPS with DC is negatively related to big companies. In the interim, only OM with LDCE has a positive relationship in medium companies and EPS with DC has a negative relationship in small companies.

Abbadi and Abu-Rub (2011) done there study aims to find the relationship between the capital structure and market efficiency of Palestinian financial company. The study used ROE, ROA, Total deposit to assets, total loans to assets and total loans to deposits as a bank efficiency measured and used the capital structure as independent variables to model the regression It was found that financial leverage had an adverse effect on bank profits. The authors also investigated the effect of the above variables on bank market value measured by Tobin's Q. It was found that Leverage had a negative effect on the bank market value and a positive and strong relationship was found between market value and ROA and bank deposits to total deposits.

Zhang (2012) examined the association between operating leverage and expected return, operating leverage and systematic risk and between operating leverage and book-to-market ratio through an empirical approach. The sample used in the empirical test is based on all North American firms excluding financial and utility firms with a time window of 24 years (1988-2011). The empirical findings of this thesis lend direct evidence for the financial theories on the role of operating leverage and financial leverage in asset pricing. Evidence for the positive association between firm-level expected return and operating leverage is weak in the sample used by this empirical research. There is strong evidence in his work for the positive association between DOL and expected return at an industry level. The positive association between beta and DOL

in the sample suggests that operating leverage amplifies the systematic risk faced by the firms. As for financial leverage, the association between DFL and beta is not statistically significant even though the sign is consistently positive in the empirical tests. These results indicate that operating leverage plays a more important role as a determinant of systematic risk than financial leverage (Thompson (1976), Chung (1987), Li and Henderson (1991). Results of the empirical tests in his research work suggested a strong positive association between DOL and book-to-market ratio (consistent with Garcia-Feijoo and Jorgensen's (2010) empirical findings and contradicts that of Norvy-Marx's (2010)) and between DFL and size in the sample employed by the empirical research in this thesis. This evidence lends support for the risk-related explanation and undermines the financial distress explanation for the value premium in the expected returns.

Similarly, Salim and Yadav (2012) also examined the capital structure relationship with and performance of the firm. The result of the empirical analysis showed that Tobin's Q as a measure of performance was significant and negatively associated with capital structure.

Arvel and Ajanthan (2013) made their study to investigate the relation between the capital structure and financial performance of trading companies which were listed in CSE (Colombo Stock Exchange) from 2007 to 2011. The work found that debt ratio was negatively associated with Gross Profit (GP); Net Profit (NP); Return on Equity (ROE) and Earnings per Share (EPS) used as financial performance measures. Similarly, the debt-equity ratio (D/E) was negatively associated with all financial performance measures except GP and only (D/E) ratio was showed a significant relationship with NP. An R^2 value of the regression model indicated that debt/equity and debt ratios explain variability in financial performance upto36.6%; 91.6%; 36% and11.2% of the variable.

Abubakar (2015) did his study to investigate the effects of financial leverage on firms' performance using 66 non-financial firms' from all the 10 sectors of the Nigerian Stock Exchange over the period 2005-2014. Panel data techniques in the form Pooled Ordinary Least Squares (POLS), Fixed Effects and Random Effects estimators were applied to achieve the study's objectives and test its hypotheses. Descriptive statistics and regression analysis were used to Analyses aggregate data. The major findings of the study revealed that an increase in the equity portion of the total-debt equity ratio (TDER) had a significant positive effect on firms' return on equity (ROE). The author concludes that financial leverage measured by the total-debt equity ratio (TDER) was a useful indicator of corporate' financial performance.

Rouf (2015) investigated the firm performance on the capital structure for the listed non-financial companies in the Dhaka Stock Exchange (DSE) for the period of 2008-2011 under the judgment of the sampling method. The specific objective of this research was to examine the association between the nature of capital structure and the performance as measured by Return on Assets (ROA) and Return on Sales (ROS). Multiple regression models were used to estimate the influence of independent variables on the dependent variable. The results obtained from regression models show that Debt Ratio, Debt Equity Ratio and Proprietary of Equity Ratio were negatively and significantly associated with Return on assets (ROA) and Return on Sales (ROS).

Hussan (2016) in his article, **"**Impact of Leverage on Risk of the Companies" illustrates that debt financing also increases the share price of the firm which indicates positive profit earning ability as well as wealth maximization. This work explored that the leverage can able to enhance the Financial Risk of the corporate. The author found that

unethical political influence and the high-interest rates adversely affect the profitability of the corporate. The author had also observed that the corporate that used leverage had increased investment capacity as well as enjoy the tax exemption facility. This research also found that there was a limited source of debt capital and the cost of capital was relatively high, for this reason, most of the small firms cannot like to get debt funds for their needs. This research, also found that there were positive impacts of leverage on the Sales revenue, Earnings before Interests and Taxes and EPS (Earning per Share) of the firm.

3.3.3 In India

The empirical studies undertaken in a different country by the different researchers were conflicting in nature as some studies confirm a positive relationship between capital structure and profitability while other studies confirm a positive relationship between the variables. It is the background that the Indian researcher has been undertaken related work to find the nature of the said relation. Some of the works are discussed below.

Soni and Trivedi (2014) done their research work titled, "A Study on Leverage Analysis and Profitability for Selected Paint Companies in the India" analyzed the impact of both financial leverage as well as operating leverage on the profitability of the selected paint companies of India. Based upon the market capitalization, five listed paint corporate of India were selected for the research purpose. The study investigated the impact of the degree of financial leverage and the degree of operating leverage on EPS with the help of correlation analysis. Along with this analysis, the paper also investigated the impact of debt-equity ratio on the EPS of the said firms to see the impact of debt on the wealth of the firms. The findings of the study found out that financial leverage had no significant

association with profitability while operating leverage had a significant impact on the profitability with the exceptions of few.

Ramana (2014) in his work titled," An Empirical Study on Relationship between Leverage and Profitability in Bata India Limited", find out leverage impact on the firm profitability in Bata India Limited. The research work analyzed the performance of Bata India Limited. The secondary data was used to the said work with an exploratory research design. The financial statements of Bata India Limited had been collected over a period of 7 years from 2005-06 to 2012-13. The data were analyzed by the percentages, averages, ratios and Correlation analysis tools, reveals that the research evidence of the study indicates that, that degree of operating leverage is a statistically significant positive correlation with the ROI. It was observed that the degree of financial leverage was positively correlated with the ROI. It means that the degree of financial leverage of Bata India was not at the optimum level. It is suggested to Bata to revise its capital structure which should include the optimum blend of equity and borrowed funds so that it has a positive impact on Return on Investment. Moreover, the degree of combined leverage was positively correlated with the ROI of Bata India. The financial performance of the Bata India was satisfactory. The Bata India was employing fewer debt funds so it can"t get the financial leverage benefits. Therefore the Bata India has to revise its capital structure so that financial leverage will help to maximize the shareholder's wealth.

Azhagaiah and Gavoury's (2011) study were mainly done to analyses how far the capital structure affects the Profitability of corporate firms in India. The study tries to establish a hypothesized relationship as to how far the capital structure (cs) affects the business revenue of firms and what the interrelationship was between cs and Profitability. This study was carried out after categorizing the selected firms into three categories based on two attributes, viz. business revenue and asset size. First, of all firms were grouped into

high, medium and low based on corporate revenue. Secondly, firms were classified into small, medium and large based on asset size to establish the hypothesized relationship that cs had a significant impact on the Profitability of Information Technology (IT) firms in India. For the study, a sample of 102 firms was chosen by the Multi-Stage Sampling Technique. The data for a period of 8 years ranging from 1999–2000 to 2006–2007 had been collected and considered for analysis. Regression Analysis (to analyze the unique impact of cs on Profitability), in addition to descriptive statistics such as Mean, Standard Deviation, and Ratios had been used. The study proves that there had been a strong one-to-one relationship between cs variables and Profitability variables, Return on Assets (ROA) and Return on Capital Employed (ROCE). Authors found that the cs had a significant influence on Profitability, and an increase in the use of debt funds in cs tends to minimize the net profit of its firms listed in the Bombay Stock Exchange in India.

John and Jayakrishnan (2015) had done their study to investigate the factors prediction of capital structure on profitability. The research concentrates fourteen years from 2000 to 2013 on that study. The sample criteria for selecting net profit margin based top fifty companies were randomly selected from the chemical industry. The random sampling technique was used to decide fifty Indian chemical companies. The result reveals that the total debt ratio was positive significant related to profitability. Long term ratio and size were negative significant related to profitability.

Aramvalarthan *et al*. (2018) investigate the effect of leverage on the performance of pharmaceutical firms in India controlling for heterogeneity among individual firms. Previous work shows mixed results in the relationship between financial leverage and corporate performance. Besides, previous studies used Ordinary Least Squares regression (OLS) method to analyze the effect of leverage on firm's performance. The OLS approach may not capture the impact of leverage on firm performance if unobservable

individual firm characteristics considerably affect the relationship. Therefore, the authors did this study by using panel data analysis to investigate the effect of leverage on the performance of pharmaceutical firms in India. Controlling the heterogeneity among individual firms, the results of this study found out that financial leverage had a significant positive impact on a firm's financial performance.

Chandra and Udhayakumar (2018) study assessed the impact of capital structure on a firm`s performance among Indian firms. Capital structure is often cited as a crucial factor that has the potential to impact a firm's continual performance. Sample taken for the study consists of 2121 wholesale trading and manufacturing companies listed in Bombay Stock Exchange (BSE). This study had been computed based on the Panel data model for the period financial year 2012 to 2017 and the result shows that within the sample, leverage was not significantly affecting the performance.

Khan (2012) made the study on a sample of 438 companies listed in BSE over a period of five years (2005-2010). The objective of the work was to investigate the relationship between capital structure, equity ownership, and BSE-Listed Indian corporate performance. The study constructed efficiency through data envelopment analysis (DEA). Panel data analysis was used to examine the effect of efficiency on leverage and the empirical validity of the two competing hypotheses such as efficient risk hypothesis and franchise value hypothesis. The study results were consistent with the Jensen and Meckling (1975) agency cost model and the author didn't find any significant impact of efficiency on leverage. There was evidence towards nonlinearities in the relationship between ownership type with capital structure and firms performance.

3.4 Other related Works:

Fama (1978) argues that the value of the firm will be reflected in its stock price. Jensen (2011) explained that on maximizing the value of the firm, management should consider not only equity, but also other sources of financing including debt, warrant, and preferred stock.

Gershon *et al.* (1984) found out the unique aspect of the degrees of operating leverage and financial leverage by investigating the joint impact of both asset structure and capital structure on systematic risk. In this study, they recognize the role of DOL and DFL in magnifying the intrinsic business risk of common stock. This study isolates the degree of operating leverage from operating risk to highlight the joint impact of DOL and DFL on the systematic risk of common stock and to test the trade-off hypothesis between the two in their paper "The Impact of the Degrees of Operating and Financial Leverage on Systematic Risk of Common Stock". Their empirical findings suggest that the degrees of operating and financial leverage explain a large portion of the variation in beta. The argued that firms engage in trade-offs between DOL and DFL seems to have gained strong empirical evidence in their study. Thus they found a significant correlation between the two types of leverage.

Huffman (1989) finds the impact of the degrees of operating and financial leverage on the systematic risk of common stocks. The study replicates and updates of Mandelker and Rhee's work. A positive relation between systematic risk and the degree of financial leverage and negative relation between beta and operating leverage ware found during their study periods. It was the opposite of Mandelker and Rhee's result.

Ofek (1993) done this study on the relationship between capital structure and a firm's reaction to short term financial distress had shown the result that high-leverage corporate

were more active than their less-leverages corporate to react operationally to short-term distress. The author found high-leverage firms were more possible to take personal actions such as restructuring company assets and laying off employees when its performance deteriorates. Apart from that, the work found out that firms with high leverage reacted quickly in financial decisions such as cutting down a dividend, restructuring debt, etc.

Ho *et al.* (2006) investigated on U.S. industries how the interaction of two endogenous variables (firm size and financial leverage) together with one exogenous variable (industry concentration) moderate the impact of R&D investment on the growth opportunities of a firm. They documented a significant positive effect on firm size and a significant negative effect on industry concentration, whereas they found out no significant ambiguous results for the independent effect of financial leverage.

Mai (2006) pointed out in his work that firm growth opportunity was one of the determinants of the financing decision of a firm. He found firms that were expected to grow higher in the future, tend to use equity capital to arrange the finance of their operational activity. On the other side, firms with low growth opportunities generally used long term debt as their source of financing. He also found as the growth opportunity of the firm varies across firms, and so their financing decision by management was also varied from time to time.

Homaifar *et al.* (1994) conducted a study on Capital Structure for the period 1979-1988. The objective of the study was to find out long-run equilibrium estimates of the determinants of capital structure. The findings of the study revealed that, in the long run, the corporate tax rate is positively related to the leverage ratio. The regression results also revealed that company size and future growth opportunities were important determinants of the capital structure. The positive association between leverage and firm

size was remarkably robust in the said study and consistent with the other researchers' work. The study also found a strong negative relationship between future growth opportunities and financial leverage and also between financial leverage and stock returns. The negative relation between leverage and future growth opportunities was consistent with Myers' hypothesis that firms with greater future growth opportunities employ less debt.

Lord (1996) empirically investigated the operating characteristics of a firm to the total, systematic, and unsystematic risk of its equity. The degree of operating leverage, the ratio of net profits to the firm value, and the variability of unit output were all found to be favorably associated with each of the risk measures. The degree of financial leverage positively related to the total unsystematic risk but did not relate to the systematic risk of the firm. After controlling for the business risk of the corporate, the author found no evidence of the association between the degree of operating leverage and the degree of financial leverage. To conduct the study author used pooled cross-section data of thirty-five firms from the electric, airline, and automotive industry. Because of the similarity among the independent variables in the model, and the assumed relationship among the three measures of firm risk, unrelated regression techniques were employed to estimate the equations.

Lee and Ryu (2003) re-estimate the relation between management ownership and firm value using the panel data model. They found out that the current ownership structure influences the firm value. The authors also found out that the management ownership affects firm value, and it is consistent with information asymmetry arguments. This work revisits the issue of analyzing the relation between the insider ownership share and the firm value. Under information asymmetry between the inside management and the outside investors, the history of the management ownership affects a firm’s value in the

two ways. First, an active insider trading poses the possibility of outsider exploitation by the inside management, depressing the firm value. Second, insider's buying of shares signals positive news on the company's value in a number of ways, increasing the firm value. Previous cross-sectional studies do not take into account the management ownership history, resulting in specification errors and biased estimates. The panel data analysis showed that the management ownership history matters in determining the firm value as predicted by the information asymmetry arguments. This paper also showed that once the management ownership history was controlled, the level itself of the management ownership is no longer statistically significant.

Chen and Strange (2005) attempted to investigate the determinants of the capital structure of a sample of 972 listed companies on the Shanghai Stock Exchange and Shenzhen Stock Exchange in China in 2003. Various theories, namely, agency theories, the trade-off, and pecking order theories were used to understand and predict the signs and significance of each factor identified by Ragan and Zingales (1995) and Booth *et al.* (2001). Moreover, authors included institutional shareholdings, including state agency shareholdings, state-owned shareholdings and privately owned shareholdings, as corporate governance variables to examine the effects of corporate structure on the debt financing behaviors. From the research work, the authors found out that profitability was negatively related to the capital structure at a highly significant level. The size and risk of the firms were also positively related to the debt ratio – but only in terms of market value measures of capital structure.

The study of Liow (2010) explored the key financial performance characteristics of listed real estate companies in an international context over 2000–2006. He measured financial success by using two different measures, i.e. the Sharpe ratio and Jensen's alpha. In his work, he considered the three main determinants (growth, profitability, and

leverage) of firm value for real estate companies and also investigated a total of 11 different company-specific characteristics as potential indicators of superior performance. The work revealed that successful real estate companies were generally of larger size and command attractive market valuation relative to their underlying book value and they were usually profitable and were more likely to take advantage of positive financial leverage effects, contributing to higher sustainable growth rates as well as profitable growth in the longer term. The findings of this research work provided practical knowledge to global prosperous investors and financial managers in including successful real estate companies in their investment portfolios.

Alaghi (2012) aimed to study the effect of operating leverage on the systematic risk of listed companies in Tehran Stock Exchange. In this study, operating leverage (OL) was considered as the independent variable and systematic risk (β) as the dependent variable. For testing the hypothesis of this research work, a linear regression technique had been used. According to the regression results, operating leverage had no effect on the systematic risk of listed companies on the Tehran Stock Exchange.

In his work Gottwald (2012) described the P/E ratio as one of the important valuation methods of stock. This ratio was used as a profit model for fundamental analysis. In the work, the P/E ratio was detail analyzed. The objective of his research work was to show the specific way, which could be used by many investors within their investment decision by means of the P/E ratio. Within the realization of the empirical analysis, selected tests and determination index were used to a statistical assessment of the relation between the P/E ratio and stock price. The work also presented other options on how to use the P/E ratio in the practice.

During their work Yang & Tsatsaronis (2012) found that the risk of banks had a positive relationship with leverage and the proportion of the carrying value of the market,

whereas there was a negative relationship with the performance. All these results were varying depending on the economic situation and stage of the business.

Ridha and Loay (2013) attempted to shed light on the different measures used to evaluate risk. They examine the Jordan Valley Authority's risk measurements and explores the different procedures and techniques used to evaluate or avoid (in some cases) risk. The work found that despite the existence of various quantitative methods to measure risk, the standard methodology based on experience and intuition used by Jordan Valley Authority. This study revealed two ways to manage risk. Among them the first one was to avoid scenarios that could lead to a risky situation, causing the organization to divert from achieving its goals, and the second deals with reducing the effect of danger (or harm) caused by risk.

Rashkan, *et al.* (2013) inventoried that the quality and timing of entry of the stock had a statistical significance on stock returns and the information was important for increasing the sale and purchase of shares.

In his study Akbarian (2013) explained the impacts of financial factors of firms and the factors of market and environment. The outcome of this study differentiates the financial factors of firms from the market and economic risk. The investigation undertaken by Dauiotaite (2013) recorded many factors related to economy, efficiency and effectiveness that had significant impacts on the risk of audit.

According to Bender (2013), the capital structure of a firm may be influenced by its life stage, since financing needs may change as a firm's circumstances do. He also pointed out that business risk reduces over the life stages of a corporate, allowing financial risk to increase. The information asymmetry theory of capital structure was credited to the work of Ross (1977). He posits that firm managers possess more information about the future prospects of the firm than the market. Therefore management's choice of the

capital structure may provide the market with signals of a firm's future prospects. Increasing leverage would signal to the market that a corporate's managers are confident about servicing the interest charge, and are hence confident about the future prospects of the firm. Therefore an increase in leverage would increase the value of the firm since investors would deem this to be a positive signal of the size and stability of future cash flows.

The work of Gunarathna (2016) showed how financial leverage affects financial risk. Ten years of data of fifteen companies in hotels, travels, chemicals and pharmaceuticals industries listed in the Colombo Stock Exchange were collected ranging from 2006 to 2015. The findings revealed that financial leverage positively correlates with financial risk. However, corporate size adversely affects the financial risk of the corporate. The author found that hotels and travel firms had a higher financial risk compared to pharmaceutical and chemical firms. From the study, the author concluded that financial leverage and firm size were the determinants factor of financial risk. The findings imply that firms having a higher financial risk can avoid their risk by altering the capital structure when the market condition is favorable.

Langemeier (2016) examined the relationship between leverage and risk by using credit reserves, liquidation costs or converting risky assets to cash, using self-liquidating loans, and fixed interest rates of agricultural farms. His basic question was Does leverage help or hinders agricultural farms. His findings revealed leverage on U.S. agricultural farms was likely to increase for two reasons. First, relatively low net farm income in 2015 and 2016 likely had a dampening impact on farm asset values. Second, the relatively low net farm income made it more difficult to repay debt in a timely manner. The total debt on U.S. farms had increased from $278.9 billion in 2010 to $367.4 billion in 2015, a 31.7 percent increase (USDA-ERS, 2015). His work also

explored that when farms return on equity higher than the return on assets leverage has a positive effect on farms' result and conversely, if the return on equity was less than the return on assets, leverage was working against the farms. He suggested depending on the tolerance of risk farmers will take the risk. Leverage increases both variabilities in returns and downside risk. A risk-averse farmer will take this into account when evaluating the use of debt. On the other hand, a risk-neutral farmer will simply examine the relationship between return on equity and return on assets and can take his decision.

Lord (2016) done the empirical investigation to complete a theoretical model relating the operating characteristics of a firm to the total, systematic, and unsystematic risk of its equity. The operating leverage, the ratio of net profits to firm value, and the variability of unit output were found to be positively associated with each of the three risk measures. The degree of financial leverage, while positively related to total and unsystematic risk, does not appear to be related to systematic risk. After controlling for the business risk of the firm, no evidence can be found of an interaction between the degree of operating leverage and the degree of financial leverage.

Dogru & Sirakaya-Turk (2017) made their work by aiming to investigate whether an optimal investment level exists in hotel firms. The authors examined the relationship between investments and hotel firm value. The results showed that there was an optimal investment level that maximizes firm value. However, the optimal investment level changes across the company on the basis of the quality of investment opportunities or under- and overinvestment problems. The optimal investment level was higher for hotel firms with underinvestment problems, which suggests that these firms have valuable investment opportunities. However, the optimal investment level was lower for hotel

firms with overinvestment problems, which implies that shareholders of these firms perceive additional investments to be value-destroying. These results support the postulations of the Q theory of investment, pecking order theory, and free cash flow theory.

Leland and Pyle (1977) found out that the firm debt-equity ratio was considered as a signal to the manager and prosperous investors. They investigated that high financial leverage generated higher bankruptcy risk and high financial costs for lower-performing firms. As managers know the internal information of business than outsiders so new issues of capital create a signal to the market and it affects the value of the firm.

Arestis and Luintel (2004) done their study to find out whether economic growth was influence by capital structure or not. The heterogeneous panel data were used and it was found that a significant impact of financial structure on real per capita output was found.

Kinsman and Newman (1998) found out that firms that maintain their level of debt relative to their profit, able to increase firm value. They found that those firms having lower profitability had used lower debt to maintain a higher value than the company, which had a high debt with low profitability. Thus, the authors concluded that if the firm uses debt rationalize with their profitability can able to maximize their firm value by choosing low to high debt.

Spiegel and Spulber (1997) found out when the company investment was large, the high and low-cost firms both choose the same capital structure in equilibrium. Thus it dissociates capital structure from internal private information. They also found when the investment was small or medium size, high-cost company's issued greater equity and low-cost company rely more on debt financing.

Hatfield *et al*. (1994) were done a study to found how the market reacts with respect to the firm's financial structure when it's average moving from the industry average. In the study, the author found that each firm had its own interior optimum leverage decision and when firm issue debt and moving to the industry average the market react more favorably than when it moving away.

Kochhar (1997) found out that firms that suffer from increased costs of capital and decreasing profit margin are not able to adopt suitable governance structures in their organization with adequate potential suppliers of funds. The author was also found during poor financial status prices for the firm output decline and during firm revenue declines, financial distress originates from loss of intangible assets.

Babenko (2003) did her study to find out the optimal capital structure during the financial distress period. The specific objective of the work was to build a model incorporating financial distress cost, which can able to determine optimal capital structure during the distress period. In her study, she found that optimal leverage decreased by 8-9% due to costs of financial distress and her model also explained higher yield spreads than traditional structural models. The author explored that when revenues decline, loss of intangible assets generates the employee-driven financial distress. She also found that contracting problems within the company lead to overpayment of wages and result in lower optimal debt in the firm's capital structure. Finally, the author examined the corporate tax effect on optimal financial leverage and yield spreads. The author found out a 5% increase in corporate tax reduces optimal financial leverage by approximately 10% and widens the firm yield spreads.

Stulz (1990) did his study to find out the effect of debt on the value of a firm. In his work, he found that debt had both a negative and positive impact on the value of a

company. His developed model finds out how debt financing helps to overcome the underinvestment problem and the overinvestment problem. In his work author assumed that managers had no equity ownership in the company and they gate remuneration on the basis of organization turnover or organization size. In his work, he found out optimal capital structure or optimal use of debt by balancing the optimal agency cost of debt and the agency cost of managerial discretion.

Leland and Toft (1991) in their work show that the value of a company was the value of its assets and the value of tax benefits arises as a result of debt use minus the value of bankruptcy cost of the firm associated with debt.

Modigliani (1980) showed that the value of an organization is the sum of its debt and equity value and this depends only on the yield generated by its assets. He said that the value of the company equity is the discounted value of its net income available to its shareholder's hand. To arrive in the said equity value he divided net income by expected rate of return on equity or by the equity capitalization rate. The net income was calculated by subtracting debt financing interest from the net operating income of the company. On the other side, the value of debt was calculated by discounting the value of interest on the debt.

Similar to agency costs theory, many research works indicated that debt financing adversely affects the value of high growth company and it enhances value for the low-growth organization. Similar with the said works Jensen (1986) made his study on the said matter and pointed out that when firms generate more internally funds but its haven’t more positive net present value projects, then if lone supplier forces the managers to pay out their funds then over-investment problem of firm can be lessened

and enhance the corporate value. But if the said problem remains with the firm it would destroy firm value.

Myers (1993) said that if a project of corporate has net positive present value but that accrue to the bondholders and does not increase shareholder wealth then rejection of the said projects may have created underinvestment problems. The author found the Value of a future high level of investment opportunity firms affected by the said underinvestment problem.

Aggarwal and Kyaw (2006) did their study to find out the impact of debt on firm value. From their study, they found out both positive and negative effects on the value of the firm. They said that optimal debt structure can be determined by balancing the agency costs and other costs of debts. It helps the organization to manage the overinvestment and underinvestment problem.

McConnell and Servas (1995) find out that the source of under-investment problems lie in the remedies of the over-investment problem. They investigated the association between corporate values, equity ownership and leverage of U.S. Company. They discovered that the corporate with high P/E ratios and high-growth Company's value was negatively related to financial leverage and that the corporate with low P/E ratio and low-growth organization, the value was positively related to financial leverage. Their findings support in monitoring the low-growth firms where financial leverage act as a monitoring mechanism to enhance corporate value, whereas, for high-growth corporate, financial leverage generates under-investment problem and destroys the firm value.

Kalpana (2015) made a study on Leverage Analyses and its effect on the Profitability of Select Steel Companies listed in BSE. The objective of the said work was to find out how to leverage was related to the profitability of the select company and the association among the financial leverage, the operating leverage and the Composite leverage with earning per share of the corporation. In addition to this, it was also investigated how profitability was influenced by fixed operating costs and financial charges. Hypotheses were examined with the help of analysis of variance (ANOVA), the correlation analysis and test of significance. From this study, it was found that there was a negative association between DOL and EPS, DCL and EPS, and DFL and EPS. It implies that in order to increase the earnings of the corporate it needs to decrees the use of debt finance in capital structure and fixed operating cost in operation of the corporate.

Moradi *et al.* (2009) done a study on Iranian companies listed on the Tehran Stock Exchange from 2002 to 2008 to investigate the Effect of Financial Leverage on Earnings. The data was analyzed with multiple regressions techniques. The Results indicated that the earnings response coefficient for the low-leverage corporate group was larger than the high-leverage ones.

Bhayani and Ajmera (2011) did a research work titled, “An Empirical Analysis Of Financial Leverage, Earnings, And Dividend: A Case Study Of Maruti Suzuki India Ltd.” to investigate the practical application and theoretical approaches of financial leverage, earnings per share and dividend per share of Maruti Udyog Ltd. They used 8 years of data for the period of 2001to 2009. The ratio techniques and correlation-co-efficient had used in the said analysis. The authors found that correlation between EPS and DFL and the difference was insignificant but the result of the correlation coefficient at a 5% level of significance showed that the diffidence was significant between DFL and DPS and EPS and DPS.

Sharma *et al.* (2014) done research work to find out the effect of financial leverage on the market and a firm-level where the company was exposed to both individual and market risk. Financial leverage was used as a measure of the company's exposure to financial risk. From the above work, it was found that AMUL was a less risky company as compared to its market condition in 2007-08, as in the period 2007-08 its total leverage was approx 12.31 which was too risky for the company. After the year 2008 the company's leverage decrease and came down to 5.15. A low degree of leverage leads to a low-risk level of the company. The operating leverage was also come down from 4.44 to 3.02 in the period 2011-12 which implies a low fixed cost and good management on operating risk of the firm.

Rehman (2013) did a research paper titled, "Relationship between Financial Leverage and Financial Performance: Empirical Evidence of Listed Sugar Companies of Pakistan". He investigated the influence of financial leverage on the performance of sugar companies in Pakistan. The authors found mix results in the relationship between the variables. He found a positive relationship was present between the debt-equity ratio and two performing measuring variables (sales growth and return on asset), and a negative association present between the debt-equity ratio with net profit margin, earning per share and return on equity.

Saini (2012) had empirically found out the relation between financial leverage and two dependent variables, market capitalization and shareholders return of telecommunication companies in India. The data was collected from, the financial statements of seven listed firms in Indian stock exchange. The Descriptive Statistics, Co-relation, and t-test had been used to find out the nature of the association and the state of impact of the financial

leverage on the owner's return and market capitalization of the firm. The author found that there was a positive association between shareholder return and financial leverage but a negative association between market capitalization and financial leverage. On the basis of the t-test result, it was concluded that there was no significant impact of financial leverage on owned return but financial leverage had a significant impact on the market capitalization of telecommunication sector firms in India.

Singh and Luthra (2015) did research work, titled, “Impact of Leverage on the Capital Structure Practices of Selected Telecommunication Companies”, in India. The authors investigated the relationship between leverage and earnings per share and also described how the earning capacity of the firm was influenced by fixed operating costs and fixed financial charges. The study had also described the relationship between debt-equity ratio and earnings per share and how effectively the firm used debt financing. In the work, selected telecommunication companies had been taken for analysis and one-way ANOVA and t-test had been used to test the hypothesis. Skewness and Kurtosis had also been used to check the Lack of Symmetry and to understand the distribution pattern of data sate. The results of the study suggested that leverage, profitability, and growth were associated with each other and leverage had an impact on the capital structure practices of the firm.

Tayyaba (2013) investigated the impact of leverage on the Profitability Of Oil and Gas Companies. The study showed the relationship between leverage (Financial, operating and combined) and Earning per Share (EPS) of this sector. In the analyses, the author found out how operating costs and fixed financial charges affected the earning capacity of this sector. The author also investigated how Oil and Gas Companies used debt

financing efficiently and found the correlation between the Debt equity ratio and Earning per Share (EPS). In this work, balanced panel data was used. The research hypotheses were examined with the help of descriptive statistics, correlation analysis, and estimate equation.

Lakshmi and Manoharan (2013) in a research work titled, “Determinants of leverage -An Empirical analysis on Indian metal sector”, identified and analyzed the determinants of leverage of the Indian metal sector. A panel data approach had been applied to analyze the data sate. The study revealed that the independent variables, namely, profitability, size, and tangibility were the key determinants of the financial leverage of the Indian metal sector.

Dalbor (2002) did his study to found out how debt financing was related to the restaurant firm's growth rate. In the study, the author found a restaurant company with growth opportunities used less long-term debt financing in their business activity because they made more discretionary investments and they were not willing to carry high-interest payments. In the said study author observed that long-term debt sends a wrong signal about a company’s market value to a low-quality company and it created mispricing in company market value. The author also found when a firm had a higher tax rate, it used more long-term and riskier debt. In empirical results, the author found that larger restaurant companies with a low growth rate and with a higher risk category of bankruptcy used more long-term debt financing but high growth rate firms used less long-term debt in their financing activity.

Wessels, (1988) Observed in his study that highly profitable companies had lower levels of financial leverage than less profitable companies. He pointed out that firm trend to use their internal source (earning) before using outside capital. He also observed that when the firm stock price increased firms trend to use more equity to keep lower leverage

levels. Similar results were found in the work of Gu (1993) and sunder and Myers (1999). According to the work of Wald (1999), profitability was the most significant determinant of the company's financial leverage, and it adversely affected the debt to asset ratios. He used the Tobit regression model as the data sate was heteroskedastic. Sheel (1994) also found the negative association between the debt-to-asset ratio or the firm`s financial leverage with its past profitability.

Stenbacka and Tombak (2002) said that both investments and capital structure were endogenous and they both depend on the internal funds' availability, the nature of the capital markets and the nature of investment opportunities available to the corporate. They found out that the optimal capital structure depends on a trade-off between the cost of new equity issued and bankruptcy risk associated with the use of debt.

McClure *et al*. (1999) investigated whether cross country capital structure configuration of the G7 countries (UK, France, Canada, Italy, Japan, US, Germany) was similar or not. They found that cross country macroeconomic factors such as economic growth, inflation, and interest rates, etc. were important determinant factors of the firm's capital structure and their capital structure was significantly different from one country to another.

Dhaliwal *et al.* (1991) conducted an empirical study to find out the relationship between financial leverage and abnormal return, measured by the earnings response coefficient (ERC). They also investigated the relationship between abnormal return of stocks and unexpected earnings of corporate. Their hypothesis was, financial leverage had effective on ERC of the company. Results of their works showed that zero debt or low debts firm's, ERC was comparatively higher than high financial leverage firms. It means they found a significant negative relationship between the two variables.

Boermansa & Willebrands (2012) found out that risk-taking had a negative impact on the microenterprise performance and so they suggested the importance of risk protection for the business organization.

Papadaki & Siougle (2007) investigated the usefulness of financial information of accounting data to the prosperous investors and its value relevance. Various empirical examinations and theoretical models had implemented for the real determinants of the stock price or value of the company.

Ball and Brown (1968), Habib (2004), Francis and Schipper (1999) and Beisland(2009) did the accounting database research to investigate the relationship between a stock price and the set of accounting variables. Authors said that If no association between the market value of the firm and accounting information is found the relevance of financial reports will lose. They found a significant association between the variables.

Holthausen & Watts (2001) had said, accounting numbers can be considered to be value relevant if it is helpful in explaining value or returns over long windows. On the other hand, Barth *et al.* (2001) said the accounting amount will be value relevant only if the amount reflects relevant and reliable information to investors in valuing the firms.

The capital structure theory underlines that financing policy on capital structure is aimed to optimize the value of the firm. An optimal capital structure will maximize the stock price. On certain condition, the management may change their target on capital structure hence will vary over time. The determinant of the target includes sale stability, the structure of active, leverage, growth opportunity, profitability, income tax, and management policy. Another determinant includes the size of the firm; the larger the size the easier to attract debt relative to small firms. This debt enables the large firm to grow better Mai (2000).

3.5 Research Gap:

A review of the above works suggests that a number of studies have been conducted throughout the world to assess the effect of risk variables on the firm's performance. Mule and Mukras (2015), Gill (2011), Zhang (2012), Ghosh and Jain (2000), Berger and Bonaccorsi (2006), Taub (1975), Hadlock and James(2002), Roden and Lewellen(1999) and Champion(1999), Philips and Sipahioglu's (2004), Akintoye (2008), Heng (2011). Many of these works have been mainly done in some specific industries. The objective of most of the works was to find out the determinant of future returns which influence the wealth of the company positively and thus to ensure the prosperity of investors. However, many of the papers deal with the capital structure of the firm to have an idea about the risk profile of the firm. There has been a spontaneous increase in complexity in the nature of investment in almost all corporate sectors. With the change in the bank interest rate, the below-expected growth rate of GDP and economic reforms, investors' attitudes and perceptions regarding the investment in corporate sectors have been changed due to an increase in risk in the internal and external environment of the companies. The economic recession and the shutdown of some renowned companies threaten and cautioned investors to invest money in the market. India is a growing economy and economic reform has been taking place. As a result, there is a huge scope of investment here. Consequently, the risk in the corporate environment has been increasing. In the previous work, the analysis of systematic risk or financial risk or the analysis of risk-return relationship or value-at-risk (VAR) were considered but the fewer study was done on the internal risk of the company and its impact on the value of a firm in the current period. The present work will bring light on how the internal risk factors are related to firm value in the Indian economy and also how they are different from one industry to another.

Further, from the methodological point of view, the present study fills up the gap in one of the very important aspects. The preliminary analysis suggests the existence of a non-linear relationship between risk variables and different valuation ratios. In the Indian context, there is hardly any study to consider a non-linear relationship to examine the impact of the internal risk variable of the company on valuation ratio. For this purpose, the risk variable has been classified into a different category to examine the impact of risk variables at a different level on valuation. Finally, the polynomial regression equation has been applied between a dependent variable and independent variables to consider the non-linear nature of the data series.

----------0----------